G. N. LIEBER,

Judge Advocate,

U. S. Army.
A MILITARY DICTIONARY,

OR,

EXPLANATION OF THE SEVERAL SYSTEMS OF DISCIPLINE OF DIFFERENT KINDS OF TROOPS,

INFANTRY, ARTILLERY, AND CAVALRY;

THE PRINCIPLES OF FORTIFICATION,

AND

ALL THE MODERN IMPROVEMENTS IN THE SCIENCE OF TACTICS:

COMPRISING

THE POCKET GUNNER, OR LITTLE BOMBARDIER;

THE MILITARY REGULATIONS OF THE UNITED STATES; THE WEIGHTS, MEASURES, AND MONIES OF ALL NATIONS;

THE TECHNICAL TERMS AND PHRASES OF THE ART OF WAR IN THE FRENCH LANGUAGE.

PARTICULARLY ADAPTED TO THE USE OF THE MILITARY INSTITUTIONS OF THE UNITED STATES:

BY WILLIAM DUANE,

LATE LIEUTENANT COLONEL IN THE ARMY OF THE UNITED STATES, AND AUTHOR OF THE AMERICAN MILITARY LIBRARY.

As an army without discipline is but a mob in uniform, more dangerous to itself than to its enemy. Should any one from ignorance not perceive the immense advantages that arise from a good discipline, it will be sufficient to observe the alterations that have happened in Europe since the year 1700.

I am fully convinced that the tactics of Frederic II, the causes of his superiority, of his system of battles and lines, and of his most skilful movements have been wholly misunderstood to the present time, and that the actions of this great man have been attributed to maxims diametrically opposite to his real principles. JOMINI....1808.

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1810.
DISTRICT OF PENNSYLVANIA, TO WIT:

BE IT REMEMBERED, that on the Tenth day of August, in the Thirty-Fifth year of the Independence of the United States of America, A.D. 1810, William Duane of the said district, hath deposited in this office, the title of a book; the right whereof he claims as proprietor, in the words following, to wit: "A Military Dictionary; or, Explanation of the several systems of discipline of different kinds of troops, infantry, artillery, and cavalry; the principles of fortification; and all the modern improvements in the science of tactics: comprising the Pocket Gunner, or Lifeguard Manual; the Military Regulations of the United States; the weights, measures, and rules of all nations; the technical terms and phrases of the Art of War in the French language. Particularly adapted to the use of the military institutions of the United States: by William Duane, late lieutenant colonel in the army of the United States, and author of the American Military Library. An army without discipline is but a mob in uniform, more dangerous to itself than to its enemy. Should any one from ignorance not perceive the immense advantages that arise from a good discipline, it will be sufficient to observe the alterations that have happened in Europe since the year 1700, 1710. I am fully convinced that the actions of Frederick II. the cause of his superiority, of his system of battles and lines, and of his most skilful movements have been wholly misunderstood to the present time, and that the actions of this great man have been attributed to maxims diametrically opposite to his real principles. Jomini..."

In conformity to the Act of the Congress of the United States, entitled "an Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned," and also to the Act, entitled "an Act supplementary to an Act for the encouragement of learning, by securing the copies of maps, charts, and books to the authors and proprietors of such copies during the times therein mentioned," and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints.

D. CALDWELL,
Clerk of the District of Pennsylvania.
WHEN the editor first undertook to prepare a Military Library for general use, he was stimulated thereto by perceiving the total decay of military information, and the gross errors, in particulars the most simple and essential, which everywhere had succeeded or obstructed useful knowledge. War at the moment seemed to be impending. There was no organization of the militia, nor any system established, excepting an incomplete elementary hand book, formed during the revolution, and adapted to fix those who had already some military experience in the first evolutions of a battalion, in a common method. This book, no way calculated to teach the initiatory exercises, nor to give any idea of the combined maneuvers of larger bodies; nor any method of instruction, nor the duties of any other body than an infantry battalion, was improperly dignified with the name of a system. The most elevated in power as well as the most subordinate in military or militia duty, adopted this false notion of a system, without enquiring further than that it was established. When such a tract was held forth as sufficient by the authority of law and by the silent indifference of those who knew or ought to know better, it is not at all surprising that every other object of military study was neglected, since every other was announced to be superfluous. This state of general indifference or unacquaintance with the business of war, gave rise to the American Military Library; in which the editor intended originally to have comprehended a vocabulary of military terms, and had made so much progress in its preparation, as to discover that it would make a large book, and that any thing short of a minute and comprehensive Dictionary, would be leaving the undertaking still incomplete. The general want of knowledge on the subject, the inaccuracy of the notions which prevailed, and above all the great revolutions which modern times had produced in the whole economy and ordination of military science, decided the editor upon the necessity of rendering the undertaking as complete as practicable, by giving to the public a competent book of reference, so necessary to study in the acquisition of every species of knowledge. After some numbers of the Library had been published, the French Military Dictionary of 1768, and the English Military Dictionary of major James, fell into the editor's hands. These works rendered much of what had been already done superfluous, though not entirely useless; the French work had been antiquated long before the revolution, by the changes which took place in the French establishment in 1788 and 1791, and still more by the total renovation which it underwent during the revolution. The English Dictionary labored under difficulties of another nature; adapted to England alone, the military system of England, called by the name of Dundas, which was only a modification of the Prussian system of Saldern, and the French system formed in imitation of the Prussian after the seven years war, must necessarily be to a British officer the standard of a work published for the British army; accordingly, although major James, both from his fine understanding and experience, was well acquainted with the defects of that system, he was still under the necessity of making it his standard. In undertaking to give a work to the American people, the publication of either the French or English Dictionary, though it might equally profit the bookseller, would be only imposing upon the public, instead of giving the best information and the most recent and approved principles and improvements in the art of war: it was necessary therefore almost to re-write, and to augment to a vast bulk the quantity of information. The whole has been, therefore,
ELUCIDATORY PREFACE.

delved and adapted throughout to the modern principles of discipline and general tactics. So much of what is old has been retained as may give some correct ideas of the systems of other nations; and the body of information, as well as of words of reference, renders this the most ample and particular Military Dictionary that has been published in the language.

To the general mass has been added the useful little work called the Little Bombardier, or Pocket Gunner, originally compiled for the British artillerists from the French Manuel de l’Artilleur de Durtubie. The measures of extent and capacity, and the monies of all foreign nations; under the words Tactics, Military Schools, Topographical Depot, Money, Weights and Measures, Valor, and generally throughout the work will be found a vast body of new information, particularly adapted to the communication of correct knowledge to all who wish to comprehend military subjects.

A too prevalent error, and the most fatal if we should ever be engaged in war, and not acquire more perfect and general knowledge, is, that the art of war requires neither study nor much attention to what is called discipline; and this error has obtained a sort of sanctity from the triumphs of our undisciplined yeomanry over the British, Hanoverian, Wurtemburg, and Hessian veterans in our revolution. Undoubtedly without an examination into the causes of the triumphs in a more particular manner than general history presents, the assumption is very imposing, and adapted to flatter self-love and national pride.

These natural and often useful passions must, nevertheless, be restrained like all others within the bounds of reason; and, in order to avoid the danger which may flow from our prejudices, we must endeavor to consider ours by which he stances with eyes as dispassionate as we should those of strangers. We must enquire, what was the state of military knowledge in the armies of the invaders; whether they exhibited any of the great qualities which constitute well disciplined troops or great generals; whether the whole course of their military transactions was not a series of blunders, produced by their ignorance of our people and country; and even in a great degree owing to the want of talents in the officers of the enemy, to supply by their genius and spirit of enterprise, the disadvantages under which they labored. It would require only an enumeration of a few facts to shew, that although the patience with which the American troops endured hardships and privations, afford glorious examples of the military virtues; that even these great virtues, conducted as they were, by a general who united in himself the military qualities of a Fabius and a Scipio, could not have had so much success were it not for the want of a good discipline, and the utter incapacity of the generals of the British army.

In the modern wars of the French revolution, the like truths have been demonstrated as in the American contest. The British armies had been merely taught the duties of parade, and when they came into the field, had to learn by hard fighting and severe defeats, that their officers were generally ignorant of the art of war; for they were beaten once more by raw troops ably conducted to the field by experienced officers, who possessed skill, who had made military science their study; and, above all, who knew how to take advantage of the incompetency of the British leaders.

Mankind in every country, educated in the same way, varies very little in those points which are adapted to military services. It must, therefore, in a great measure depend upon the education which is applied to military affairs, in the discipline of armies, whether they are victors or vanquished. All nations profess to have acted upon this opinion, though there seems not to be that attention paid to the subject, nor to education of any kind, which the acknowledged importance of the case calls for. This indifference or heedlessness has at times infected all nations, and may be considered as a disease, which if not cured at a certain stage, ensures destruction.

The triumphs of Spain before the peace of Vervins in 1598, is a most important part of history for the study of men fond of military enquiries: the infantry of Spain was then the first in Europe; we have seen in the years 1808 and 1809, that the extinction, by the neglect of military knowledge, has left Spain, with ten millions of people, an easy conquest. Austria and Prussia have successively shone preeminent on the military theatre of Europe. The daily parades at Berlin, which Frederic II. conducted himself for many years, and from which strangers were excluded, were only lessons of experiment and instruction by which he formed his own mind to the conviction of the power of rapid movement, and close
evolutions by small divisions; divisions moving in different modes, and by different points, in apparent disorder but by the most exact laws, to one common point of action. Here it was that he contrived those methods which he accomplished in action afterwards, and which enabled him, with a force not equal to half the Austrian army, to baffle, defeat, and triumph over all Europe. It will be useful for the man of sense to consider, whether Frederic could have performed such wonders in the field, without this previous practice himself, and the previous discipline which rendered his army of 40,000 as manageable as a battalion of 500 men. Perhaps we shall be told that Steuben's tract renders all these considerations unnecessary. The military triumphs of modern France have been ascribed to a multitude of causes; really, perhaps, the causes of her military successes may be reduced to two. First, the necessity which arose out of what has been preposterously called the balance of power in Europe, which under the pretence of maintaining an equality of nations, has been the real mask for reiterated wars, conquests, plunder, and desolation; Spain, Austria, and France, have been at different periods held up as aspiring to universal dominion; under the color of resisting the aggrandizement of either, they have been for two centuries constantly engaged in efforts to plunder each other. France, from her position, was from the passions of the age, forced to be prepared for the defensive; and in several successive wars had made conquests on her extremities, which rendered it daily more necessary to maintain a military establishment; and at length, after suffering great disasters, and thereby producing a succession of great generals, the passions and character of the people became military. Taught by triumphs and disasters, the causes of success and failure, her generals and statesmen directed their attention to the perfection of all the branches of military institution; the management of weapons, the array of troops, the plans of marches, the supply of armies, the passage of rivers, and the simplification of every species of duty. Colleges were instituted, the sciences were enlisted in the military service, and it was difficult to tell in which class of citizens the greatest military enthusiasm prevailed... the nobles who alone could aspire to command, or the privates who composed the rank and file of armies. It is to these institutions, through which the path to honor and renown lay, that France owes her present preeminence. Under several heads of this Dictionary will be found the facts upon which this opinion is sustained; other nations rather imitated than emulated her institutions; while France pursued the spirit of the Romans who adopted every weapon which they found powerful in the hands of their enemies; France adopted the prolonged line of the Austrians, or abandoned it to pursue the concentric movements of Prussia; those echellons which under another name were among the manoeuvres of Scipio and Gustavus Adolphus, and which so many have affected to laugh at as novelties, because they know neither their history nor their use; were recommended by Guibert in 1763, as the column had been before recommended by Folard; and each of whom had been calumniated and their tactics reprobated, by the enemies of innovation, or rather by the blockheads of their day, a class of beings which some are to be found everywhere. Therapid principles of Frederic, and the evolutions of the echelon and column adopted to the concentric method of movement, upon oblique as well as direct lines; and all executed with a combined precision before unusual, constitute the great features of the modern tactics. Simplicity of method in instruction is the key to it. It must be evident to the humblest understanding, that a great part of the success of armies in war must depend as much upon the knowledge of the enemies' mode of movement and action, as well as in the perfection, precision, and promptitude of execution in their own. Voltaire, whose history of Europe is alike admirable for its conciseness and authenticity, since all his information on military affairs was drawn from the military depot established at Versailles, speaking of the battle of Rosbach, attributes the defeat of the French under Soubise to their ignorance of the new methods of movement which had been introduced by Frederic II. The soldiers saw that the old method of battle was changed; they did not comprehend the motions of the Prussians, which were not merely novel, but as exact as the movements on a parade; they believed they saw their masters in the art of war, they were dismayed and fled.
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It is to these institutions, through which the path to honor and renown lay, that France owes her present preeminence. Under several heads of this Dictionary will be found the facts upon which this opinion is sustained; other nations rather aped than emulated her institutions; while France pursued the spirit of the Romans who adopted every weapon which they found powerful in the hands of their enemies; France adopted the prolonged line of the Austrians, or abandoned it to pursue the concentric movements of Prussia; those echelons which under another name were among the manoeuvres of Scipio and Gustavus Adolphus, and which so many have affected to hugh at as novelties, because they know neither their history nor their use; were recommended by Guibert in 1763, as the column had been before recommended by Folard; and each of whom had been calumniated and their tactics reproached, by the enemies of innovation, or rather by the blockheads of their day, a class of beings which some are to be found everywhere.

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This anecdote, which has many resemblances in ancient history, is of great
moment in directing the understanding to the consideration of military institu-
tion. It leaves no doubt of the necessity of knowing the art of war as it is prac-
tised by other nations, and especially the importance of practising that which
has proved superior to all others.

A fatality has attended all the efforts which have been made for several years
to introduce a suitable organization of the militia, and a correct military system.
The genius of ignorance appears to have cast a spell over all the attempts that
have been made. Like the projector who was so much occupied by the erec-
tion of a weathercock, that he set about it before the foundation for the steeple
was laid, every attempt has been made at the wrong end; a part has been mista-
ken for a whole, composed of numerous parts, and the wrong part has always been
chosen first. America, which has been so original in the revolution as to give rise
to the institution of rifle corps, which have decided seven-eighths of the battles
that have been fought in Europe since; has been led to resort constantly to the
very system of which America proved the futility, for precepts and examples;
instead of profiting by the march of science, we have gone for instruction to the
worst military institutions of Europe. When any person intrusted with the mi-
itary concerns of the U. States wants information, it is to authorities exploded
and condemned by men of military knowledge, reference is made. A minister
of England in addressing that nation in 1806, at the very moment when it was an-
nounced to that nation that the bellum ad internationem had only then begun...
that "the war was now at the foot of her walls," had the honesty, which times
of danger extracts even from ministers, to declare... "The military system of Eng-
land was equally in want of repairs, or rather a thorough rebuilding, even to its foun-
dation stone." There is no truth more certain, yet it is to this tattered and
defenceless fabric we resort for models on every occasion. The bill for esta-
blishing a master-master general's department, which was before congress in
1809-10, is a scion of this decayed tree; no doubt that as long as the present
apology for a system exists, the proposed department may serve, as a crutch is
of use to a body stricken with paralysis.

Military science even in France, where it has now reached the greatest
perfection, has had to struggle with selfishness and the occasional and almost
insuperable difficulties, which the appointment of ministers incompetent and
unexperienced in military affairs, threw in their way. Folard is reputed to
have died broken-hearted, by the persecution which be experienced from stupid
generals and ministers who looked to nothing but official patronage. Le-
vrilliére, whose admirable improvements in the various departments of artillery,
to whom is owing the reduction of the length and the weight of metal of
guns of the same calibre, was persecuted out of France, and obliged to take re-
uge in the army of Austria, where his services proved so formidable as to in-
duce his recall, and the final adoption of his vast improvements; those improve-
ments which, by lessening the weight of artillery, have led to the powerful insti-
tution of horse artillery.

Wise nations are never disposed to reject the useful because it is not of
their own invention. The Austrians after the battle of Austerlitz immediately
abolished their old discipline, and the archduke Charles instituted a better sys-
tem upon the principles of the modern French. Even the French themselves,
surrounded by triumphs, have not yet deemed the science of war perfect. New
dispositions of the column were adopted in Egypt; it was only in 1808 that the re-
gulations for the exercise and manoeuvres of Cavalry were completed; and even
since the campaign which closed with the battle of Wagram, they have made
some important alterations in the arms of their cavalry, founded either on the
experience of inconvenience in their own, or of some superior advantages in those
of their enemy.

The conclusions which we draw from these facts are, that the prevalence of
erroneous opinions on the military institutions is a subject of very serious con-
cern; because it is evident, that so long as a nation or a government, which has
the care of the national concerns, and a great influence over its opinions, suffers
ignorance and prejudice to occupy the place of intelligence, a similar fate may
be considered as the consequence, whenever the nation shall be attacked, as
other negligent or ignorant nations have been, by a power of superior knowl-
dge and capacity in the art of war.
Nothing more plainly shews the misconception which generally prevails, especially in the legislatures of the Union and the several states, than the contradictory motives which are assigned for leaving the militia and military system in their present state of disorganization. Some plead that the art of war is laiz., as Steuben; others that Steuben carried us through the revolution; when in fact both Burgoyne and Cornwallis were taken before Steuben’s tract was introduced; others are for arming our militia with pikes alone, forgetting that an open country is that for which pikes are best adapted; and that to render pikes effective there must be a most perfect discipline of maneuver, which may render the line as potent and firm as the column, and as easily displayed, concentrated, and formed to various fronts as the best disciplined infantry; when the new modes of movement are mentioned, they are called novelties, though the principal of them are as old as the battle of Pharsalia, and were in practice at the battle of Lutzen; other exceptions are, that besides being new, the modern discipline is too difficult to learn, too perplexed and fatiguing; that the multiplied maneuvers require more time and labor, and must be in a great measure useless; and that so satisfied are the British of this that they have reduced them all to nineteen maneuvers. Nothing so truly depics the want of judgment or a proper attention to the subject, as observations like these,—the truth is that the modern principles of instruction are fewer in number, more easily taught and understood, and less irksome to the soldier; better adapted to engage the soldier’s attention and afford him gratification; that the variety and number of evolutions is not more various than the eternal variety of ground by which military movements and dispositions are always governed; and that the new discipline, by teaching the first elements well, enables the military body to be moved by these principles on any ground, and not only to form any disposition that it is possible to form, but without having been previously formed in such new dispositions; the elementary principles of modern discipline being peculiarly adapted to the understanding, and the movements by small bodies, enabling every officer of a small portion of troops to move his particular corps by the mode best adapted to the ground.

It must always be the fault of the government if its military institutions are erroneous. If there were but a single regiment, that should be instructed according to the best principles, and made to practice whatever was most useful and necessary in the art of war. In a nation of freemen the regular force should constantly exhibit their exercises and evolutions, so that every citizen should be familiar with the best practice of the use of arms and maneuver. The eye may be said to have an infallible memory, it is above all other of the organs of sense the best medium of intelligence. The United States troops are usually cooped up in garrisons, as if they were, like the King of Prussia, forming a system in secret, while in fact there is nothing worthy of the name of discipline carried on, and in too many instances nothing understood. Perhaps the troops of the United States have not, as a part of discipline, fired a ball at a target for twenty years. Field artillery, or mortar practice, probably not more frequent. The maxim of economy is an important one in a free state, but there is an economy more destructive than the greatest profusion; and that is the economy of practical and useful knowledge.

We speak of these things reluctantly, but the evil is almost a disease, and requires the regard of the intelligent men in all parts of the nation.

What is then requisite for the United States?

It will be said that there is some difficulty in effecting any improvement. Unquestionably so it is, and so it ever will be. But the government is bound not to regard difficulties, when they are put in competition with the dangers which flow from neglect. The government possesses the power, and the army is bound, and the country is anxious to possess a more complete system in lieu of the once useful but at present useless tract of Baron Steuben. The difficulties are not so great as may be at first sight supposed, and may be surmounted in a way rather to serve as a pleasure than a difficulty to the army and militia. The elements of modern exercise might be first introduced, they are neither so numerous, so perplexed, nor so unnatural as the old forms; neither are they so tiresome to the teacher or the taught. They have also another advantage, that the soldier is not as heretofore stiffened and set up like an embalmed Egyptian mummy; the modern method takes any number from 10 to 100 men, and places them in an easy position erect without constraint of head, or limbs,
Elucidatory Preface.

and proceeds by familiarizing the ear to equal time by the action of the feet of the whole squad or company; after which they are all taught to face to either hand or about, indifferently, and never in one routine; the mode of moving the limbs and the time of movement is ever the same; and the words of command few, simple, and plain; where they in any case differ from the usual words of common life the teacher's duty is to explain them often, until the ears of all are familiar with their practical meaning.

The next process is advancing, at a given length of pace in equal times; and this is combined with facings, and at last with wheelings, in whole ranks, or in sections of any given numbers, always varying, diminishing, and augmenting at discretion the numbers of the sections, by drawing from the right of each successive section in the rear of the first, to the left of the leading section, a number sufficient to augment the first to the number required, and so of every section from front to rear; the drill is thus carried on always with moving feet at the time of gay dancing music, and when marching always at a pace of 24 inches.

After the squad of 20 or 100 is found complete in these minute branches of marking time, advancing at time, facing and wheeling, augmenting and diminishing sections, they are taught the oblique wheelings and facings, or as the modern words are half or quarter facing, or half or quarter wheeling; and to march dressed in these several orders, so as to form exactly in the same relative position to each other when wheeled or faced to their primitive position.

Thus much may be well taught, and comprehended, and practised in two or three weeks, employing only two or three hours at each drill, and twice each day.

The instruction of the pivots or flank men of ranks and sections, go along with the first wheelings; and as soon as the uses of the pivots are generally understood, then the whole are formed into double ranks; and the men are prepared to execute any of the modern evolutions or manoeuvres; it being always calculated that the officers are equally diligent and as well drilled as the men, and competent not only to comprehend but to correct an error when it occurs.

At this stage, and not before, arms should be put into their hands; and a manual exercise of some kind taught, for it is not material what the motions are so that the firing and loading motions are taught to be performed with dexterity and ease. The drill is then manœuvreed once a day, and the officer who feels a proper sense of the importance of the habit of command, and the advantage of giving troops the practice of movement, will diversify his own pleasures and gratify his men, by moving them into all the various positions of column, line, echelons, movements by heads of sections, changing flanks and fronts, taking new alignments, countermarching in the various modes of which modern military works furnish such useful and abundant examples.

The elements of the first drills with minute instructions might be comprised in a hand book of one half the compass of Steuben's tract; and this elementary work placed in the hands of all descriptions of troops, infantry, artillery, and cavalry, should be the first rule of practice for them all in common. This introduced, the government could at leisure prepare instructions for a more comprehensive course of manoeuvres, and particularly hand books upon the same simple principles of drills for artillery, riflemen, and cavalry, in their particular branches of duty. It being to be understood as a fundamental principle, that as the movements and action of all kinds of troops are regulated by the movements of infantry; or in other words, as infantry compose the main body, line, or column; the riflemen, artillery, and cavalry must be governed in their movements by the main body, to which they are appendages or auxiliaries; and it is therefore required that they should know themselves how to execute the infantry manoeuvres, in order that they should not, like the French at Rosbach, be confounded by movements of which they are ignorant.

The profound mathematician may look down from the elevation of abstract science upon the cold common place of syllabic combination and Arabic numerical notation; but he owes his first knowledge to the alphabet of language and arithmetic; here he must have begun, and here the military man of whatever grade must also begin. He must learn the alphabet of military knowledge at the drill, he must take his lessons and learn them; he must study and practice what he has learned there, in order to teach; and the officer must learn both to command others and to obey. There is no science which may not be attained by
earnest application and practice. But no science or art can be acquired or understood without both; and the more carefully that study is pursued and the more frequently it is practised, the more efficient will it be in the individual and in the regular mass of individuals. But practice is above all requisite, careful, frequent, constant, obstinately pursued practice.

But this is not yet a system.

We have exhibited the elementary branch of military instruction first, merely because it is the point at which every military body must commence; because this is what is now most wanted, and because while it is carrying into practical use, the general system containing all the purposes and uses of an efficient military establishment may in the mean time be prepared and digested.

Having treated so much on this subject, its importance will excuse the discussion of it more at large. To the perfection of a military establishment for the U. States two things are essential.

The first, that it should be such as to be equally applicable in its operation to the militia and to the army of the U. States, whenever the former are called forth.

The second, that every act and duty appertaining to the military establishment should be transacted by none other than men subject to military order, control, and responsibility; and liable to be put in motion or brought to account for delay or neglect in a military manner.

These two principles lead to the consideration of what would be an efficient military organization; and here we have a host of formidable enemies, ignorance, a disorderly mass; indolence and idleness, hanging on the flanks; the steady habits of old prejudice ever alarmed for its patronage or its place; all immediately exclaimed, would there not be great confusion produced by abrogating some duties and introducing others. We shall not skirmish with this motley and unmilitary groupe; we shall come to the point. In considering the subject, it will be found that the present war department in fact corresponds with what is called the general staff in other countries; the president representing the commander in chief, the secretary at war chief of the staff. From this fact it will be perceived, that whatever improvements might take place in the system, it would at first consist only of defining and distributing the duties and details of service by the war department.

After defining and arranging the various heads of service, they should of course be classed according to analogy or the dependency of one kind upon another; so that there would be several heads, under each of which the inferior branches of duty might be distributed. At the head of one of the superior branches should be placed a responsible officer, who would have the superintendence of all the duties, and the direction and control of all those placed in the execution of the subordinate branches; this officer to be responsible to the executive directly in peace; and when the arrangements became necessarily distinct in the field, to become responsible to the commanding officer in the field. These heads of branches should be the efficient staff of the military institution, it is through the perfection of the organization of the staff, and the rigid responsibility for the due execution and for seeing all under them duly performed, that modern tactics is in an eminent degree indebted for its preeminency and its triumphs. Precision, promptitude, and provident foresight, are their invariable laws, and upon these being perfect depends all the success of modern military science; but it must be taken in connexion also with the disciplinary principles which go into action, where the same provident foresight, the same precision, and the same celerity of motion ensure success to all that is undertaken against any force, however numerous and brave, destitute of system equally provident and combined in its operations.

To commence an efficient system we must take the outline upon the largest scale; that is, in preparing an establishment, of which the end is the defence of all the nation, we must not begin with a system which is only adapted to peace; an assumption of this kind would render any military system nugatory. To form a system complete, it must be founded in its very nature on the supposition of an actual war. This would no doubt be reversing the present order of things; since it is not to be contested, that as it is at present constituted, the war department is utterly incompetent to conduct a war; but such as would leave the mind of a general officer, in case of actual war, to labor under a most
hazardous and perplexing responsibility. Possibly economy may here take the alarm, we shall quiet this costly chimera.

A peace establishment of the military department we conceive should be treated as the incident; forming and fixing the principles of the institution would not necessarily call for its immediate completion, or the appointment even of a single officer, or the expenditure of a single dollar more than at present; the duties and functions should be defined, but no additional officers employed until occasion called for them, that is war. It is necessary to offer these precautionary ideas to prevent misapprehension, and lest the idea of the formation of a system, that is a coherent and comprehensive regulation for the military department, should be mistaken for a wish to immediately organize an army and staff, and put them into pay. It is barely meant that during peace provision should be made against war, which we do not know how soon we may be involved in.... we shall therefore proceed.

The military system may be said to consist of two principal branches, military operations, and subsistence, both of which must be within the full and ample command of the chief of an army. These two branches become the objects of duty distributed among the staff; which unfolds another important truth, that every officer who has the provision, or charge of procuring supplies of subsistence or clothing, should be responsible in a military manner for the execution of his duty, and liable to military penalties for the abuse or the neglect of that duty. This is a most important consideration; and it is apprehended the scandalous state of the clothing of the army of the U. States, which has been gradually becoming worse for several years past, is a strong exemplification of this necessity. There should not be a single officer of the war department, unless perhaps the accounting officers, who should be exempt from military control, in order to assure a due exercise of their duty between the public and the military establishment; as it would be in the power of men intrusted with the provision of clothing or subsistence at any time.... to betray the army to an enemy.

The beginning should be with the organization of the general staff, and this should be adapted, for the reasons given, to a state of war. The secretary of the war department being in fact the chief of the staff, the rest of the staff should consist of an able practical general officer, a capable chief officer of the artillery, an effective chief officer of the engineers, a vigilant and experienced quarter-master-general, and an intelligent and experienced adjutant general, with one or two commissioned officers, as the service might require, attached to each of these several officers as aids, who should execute under a board of war the details of duty; these superior officers, with others called in, should constitute this council or board for the regulation of all the military details; appoint inspectors of reviews; and such other persons as might be required to aid in the service, such as surgeons, draftsmen, &c. They should divide their duties into the military and the administrative, and have cognizance and control over every branch, always subject to the chief of the staff or secretary at war; they should assemble and deliberate, and their consultations and measures, however minute, with their reasonsings or objections, should be daily recorded; and these consultations should, whenever required, be presented to the secretary at war, to the president, or to congress when called for.

The military branch should be distributed under the heads following....

MILITARY PLANS AND MEANS OF DEFENSIVE OR OFFENSIVE WAR.

1. This should comprehend a topographical establishment, the preparation of complete maps and surveys of our own country; and a classification of the surface of the Union into districts of equal portions of three, five, or nine parts; and these again into lesser districts; designing all the passes, roads, rivers, &c, in each, with descriptive memoirs and references to each.

2. The police of armies.

3. Military exercises or discipline.

4. Military operations, marches, and encampments.

5. Movements of troops by water.

6. Military chronology, or daily and other returns, of duties, actions, retreats, &c. &c.
FISCAL II...SUBSISTENCE, PECUNIARY AND CIVIL ADMINISTRATION.

1. Pay, receipts, and expenditures, or the treasury branch.
2. Clothing, equipments, arms.
4. Forage, hay, oats, straw, corn.
5. Hospitals and magazines.
6. Carriages and horses for stores and artillery.

Such is the outline of a military system adapted to the circumstances and necessities of the U. States. On a superficial glance, to timid or unreflecting men, this may appear to be surrounded with difficulties insuperable; there will be discordant opinions, envy, jealousy, folly will devise objections; no two men may concur, however equal and able; the objects are themselves too numerous and complex for any one man to prepare in time or in a satisfactory manner; the proposition itself will be said to arise from interested motives; from some lust of place or profit; it will require resolution to resist prejudice; and the requisite firmness to decide may not be found.

We shall close this part of our essay by stating generally, that whenever there shall appear a disposition to adopt this or any such system, means can be pointed out by which the insuperable difficulties shall be made appear easy to be overcome; discordant opinions reconciled and brought spontaneously to concurrence; envy, folly, and jealousy will be allowed to prey upon themselves, without danger of annoyance to the plan; the variety of the objects can be made subservient to render them more simple, practicable, and effective; and instead of the merit being ascribed to any one man, every officer in the army and the militia if they choose shall have an opportunity of laying his claim to a participation in the plan.

If the observations thrown out in this preface are well founded, the necessity of a work of this kind will be immediately perceived. Let it not however be imagined, says major James, that a Military Dictionary ought exclusively to belong to a camp or barrack, or be found in the closets or libraries of military men alone. The arts and sciences are so intimately connected together, that they eventually borrow language and resources from each other, and go hand in hand from the senate to the field, from the pulpit to the bar, and from the desk of the historian to the bureau of the statesman or politician.

We have a few words to say on certain parts of the work. The French phrases are adopted for their usefulness in reading, and often even in political reading: the words and phrases in the language of the East Indies, are adopted from the English Dictionary, in which however there were some errors which the editor of this work was enabled to correct, and to give more accurate explanations to many. Some subjects which might with more propriety be placed under one letter are placed under another; the course of reading which the editor commenced cotemporaneous with the preparation of the three first letters, not affording the illustrations until the letter to which they properly belonged had been printed. Thus under Valor will be found much of what would properly come under Courage; and under Topographical what would properly belong to Depot. There are several similar instances.

Should the disposition be manifested to cultivate the knowledge of military subjects generally, the editor proposes at some future day to publish Gen. Grimaud's treatise on the Staff of armies; the French Regulations for Cavalry of 1808; and the most modern and celebrated works on Tactics, the treatise of Jomini, the 4th volume of which was published in the beginning of 1810. All these works are already translated and ready to be put to press; beside a Dictionary of all the military actions recorded in ancient and modern history which is now in great forwardness.

Military men who may be desirous of adding to the stock of useful and correct knowledge, will oblige by pointing out any defects or errors, or recommending any additions that are pertinent to the nature of this work, addressed to the compiler.

July 4, 1810.
MILITARY
DICTIONARY.

ABATIS, in a military sense, is formed by cutting down many entire trees, the branches of which are turned towards an enemy, and as much as possible entangled one into another. They are made either before redoubts, or other works, to render the attacks difficult, or sometimes along the skirts of a wood, to prevent an enemy from getting possession of it. In this case the trunks serve as a breast-work, behind which the troops are posted, and for that reason should be so disposed, that the parts may, if possible, flank each other.

ABLECTI, in military antiquity, a choice or select part of the soldiery in the Roman armies, picked out of those called extraordinarii.

ABOLLA, in military antiquity, a warm kind of garment, generally lined or doubled, used both by the Greeks and Romans, chiefly out of the city, in following the camp.

ABORD, Fr. attack, onset.

SABOUCHER, Fr. to parley.

ABOUT, a technical word to express the movement, by which a body of troops changes its front or aspect, by facing according to any given word of command.

Right About, is when the soldier completely changes the situation of his person, by a semi-circular movement to the right.

Left About, is when the soldier changes the situation of his person by a semi-circular movement to the left.

ABREAST, a term formerly used to express any number of men in front. At present they are determined by Files.

ABRI, Fr. shelter, cover. Etre a l'abri, to be under cover, as of a wood, hill, rock, &c.

ABSCISSA, in military mathematics, signifies any part of the diameter or axis of a curve, contained between its vertex or some other fixed point, and the intersection of the ordinate.

In the parabola, the abscissa is a third proportional to the parameter and the ordinate.

In the ellipse, the square of the ordinate is equal to the rectangle under the parameter and abscissa, lessened by another rectangle under the said abscissa, and a fourth proportional to the parameter, and the abscissa.

In the hyperbola, the squares of the ordinates are as the rectangles of the abscissa by another line, compounded of the abscissa and the transverse axis.

But it must be remembered, that the two proportions relating to the ellipse and hyperbola, the origin of the abscissa or point from whence they begin to be reckoned, is supposed to be the vertex of the curve, or, which amounts to the same thing, the point where the axis meets it; for if the origin of the abscissa be taken from the centre, as is often done, the above proportions will not be true.

ABSENT, a term used in military returns. It forms a part of regimentsal reports, to account for the deficiency of any given number of officers or soldiers; and is usually distinguished under two principal heads, viz.

Absent with leave, officers with permission, or non-commissioned officers and soldiers on furlough.

Absent without leave. Men who desert are frequently reported absent without leave, for the specific purpose of bringing their crime under regimental cognizance, and to prevent them from being tried capitally, for desertion.

ABSCISSA, in philosophy, is the whole force by which a body, shell, or shot, is impelled towards the centre. See Gravity.

ABSCISSA, in Algebra, is the known quantity which possesses entirely one side of the equation. Thus, in the equation, \( xx + 10x = 64 \), the number 64, possessing entirely one side of the equation.
equation, is called the absolute number, and is equal to the square of the unknown root added to ten, or to 10 times x. 

ABUTMENT. See BRIDGES.

ACADEMY, in antiquity, the name of a school founded by Plato, and with which he was connected, and which he afterwards left to his disciples. Plato's followers assembled for conversing on philosophical subjects, and hence they acquired the name of Academicians.

The term Academy is frequently used among the moderns for a society, of learned persons, instituted for the cultivation and improvement of arts or sciences.

Some authors confound academy with university; but, though much of the same in Latin, they are very different things in English. An academy is, properly, a body composed of graduates in the several faculties; of professors, who teach in the public schools; of regents or tutors, and students who learn under them, and aspire likewise to degrees; whereas an academy was originally not intended for teaching, or to profit any art, but to improve it; it was not for novices to be instructed in, but for those who were more knowing; for persons of distinguished abilities to confer in, and communicate their lights and discoveries to each other, for their mutual benefit and improvement.

The first academy we read of, was established by Charlemagne, by the advice of Alcuin: It was composed of the chief wits of the court, the emperor himself being a member.

Military Academy. There are in England two royal military academies, one at Woolwich, and one at Portsmouth. The first was established by king George II, in 1741, endowed, and supported, for the instructing of the people belonging to the military branch of ordnance, in the several parts of mathematics necessary to qualify them for the service of the artillery, and the business of engineers. The lectures of the masters in theory were then duly attended by the practitioner-engineers, officers, subalterns, corporals, privates, men, and cadets. At present the gentlemen educated at this academy are the sons of the nobility and military officers. They are called gentlemen cadets, and are not admitted under 14 and not above 16 years of age. They are taught writing, arithmetic, algebra, Latin, French, mathematics, mechanics, surveying, levelling, and fortification, together with the attack and defence; gunnery, mining, laboratory works, geography, perspective, fencing, dancing, &c.

The master-general of the ordnance is always captain of the company of gentlemen cadets, and some officer of merit is always captain-lieutenant. Therein is besides, a first lieutenant, and two second lieutenants. They are further under the immediate care of a lieutenant-governor, and an inspector, who is officer of great abilities and experience; and the professors and masters are men of known talents and capacity. That at Portsmouth was founded by George I. in 1722, for teaching of the branches of the mathematics which more immediately relate to navigation.

For the American and French Military Academies, see School.

ACANZI, in military history, the name of the Turkish light-horse, or jaysh, the van-guard of the Grand Signior's army on a march.

ACCELERATED Motion on oblique or inclined planes. See Motion.

ACCELERATED Motion of pendulums. See Pendulums.

ACCELERATED Motion of Projectiles. See Projectiles.

ACCESSION, in antiquity, was also an appellation given to a kind of admirals appointed by the tribune to assist each other in the command of the fleet. Among the moderns for a society, of learning, and of literature, of which more immediately relate to navigation.

ACCESSIBLE, that which may be approached. We say, in a military sense, that place, or that fortress, is accessible from the sea, or land, i.e. it may be entered on those sides.

An accessible height or distance, in geometry, is that which may be measured by applying a rule, &c. to it; or rather, it is a height, the foot whereof may be approached, and from whence any distance may be measured on the ground.

Heights, both accessible and inaccessible, may be taken with a quadrant. See ALTITUDE, and the article on Field Fortifications in the American Military Library, Theorem 11, 12, 13, 14, 15.

One of the objects of surveying, is the measuring both accessible and inaccessible distances.

ACCLIVITY, in a military sense, is the steepness or slope of any work, inclined to the horizon, reckoned upwards. Some writers on fortification use accent for conformity with talus; though talus is commonly used to denote all manner of slopes, either in its ascendent or descendent state.

ACCONTIUM, in ancient military writers, a kind of Greek dart or javelin, somewhat resembling the Roman pilum.

ACCOUTREMENTS, in a military sense, signify habite, equipage, or furni-
ture, of a soldier, such as belts, pouches, cartridge-boxes, saddles, bridles, &c. Accoutrements should be made of stout leather, nor of the spongy kind, which is always stretching, and difficult to clean. The belts are about 2½ inches broad, with two buckles to fix them to the posts and guards of the trenches, and reporting their situation, and how circumstances: he gives and signs all orders for skirmishing parties (if time permit) and has a sergeant from each brigade to carry any orders which he may have to send.

ADJUTANT, an officer who aids the major in part of his duty, and performs it in his absence. He receives orders from the brigade-major, if in camp, and when in garrison, from the town-major; after he has carried them to his colonel or officer commanding the regiment, he then assembles the sergeant-major, drum-major and lie-major, with a sergeant and corporal of each company, who write the orders in an orderly book, to shew to their respective officers. If convoys, parties, detachments, or guards, are to be furnished, he gives the number which each company is to furnish, and hour and place for the assembling; he must keep an exact roster and roll of duties, and have a perfect knowledge of all marches, &c. This post is usually given to an active subaltern.

ADMIRAL, on the European establishments, and on shore, are entitled to receive military honors, and rank with the army.

ADVANCE. See Pay in Advance. ADVANCED signifies some part of an army in front of the rest, as in advanced guards, which always precede the line of march or operations of a body of troops; again, when a battalion, or gun of a second line are brought up in front before the first line. This term also applies to the promotions of officers and soldiers.

ACLUIDES, in Roman antiquity, a kind of missile weapon, with a thong fixed to it, whereby it might be drawn back again. Most authors describe the actus as a sort of dart or javelin; but Scaliger makes it roundish or globular, with a wooden stem to point it by.

ACOLUTH, in military antiquity, was a title in the Grecian empire, given to the captain or commander of the vexillum, or body-guards, appointed for the security of the emperor's palace.

ACTUAL, in the notes labourers, attention, labor, diligence and study.

ACUTE angle. See Angle.

ADACTED aye, lies to stakes, or piles, driven into the earth by large mauls shod with iron, as in securing ramparts or positions.

ADDICE, a sort of axe which cuts horizontally. It is sometimes called an Axce. See Gallery.

ADJUTANT-GENERAL is a staff officer, who aids and assists a general in his laborious duties: he forms the several details of duty of the army, with the brigade-majors, and keeps an exact state of each brigade and regiment, with a roll of the lieutenants-generals, major-generals, colonels, lieutenant-colonels, and majors. He every day at head quarters receives orders from the general officer of the day, and relays them to the majors of brigades, from whom he receives the number of men they are to furnish for the duty of the army, and informs them of any detail which may concern them. On marching days he accompanies the general to the ground of the camp. He makes a daily report of the situation of all the posts placed for the safety of the army, and of any changes made in their posts. In a day of battle he acts as aid to the general. In a siege he visits the several posts and guards of the trenches, and reports their situation, and how circumstances: he gives and signs all orders for skirmishing parties (if time permit) and has a sergeant from each brigade to carry any orders which he may have to send.
AFFIDAVIT, in military law, signifies an oath taken before some person who is properly authorized to administer it; as first, when a soldier is enlisted, when it is stiled an attestation; secondly, by all officers appointed on a court-martial, thrilly, by the commanders, or master-masters. AFFRONTER, Fr., to encounter or attack boldly.

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AGE, the age of a soldier, is the time at which he is first, when a soldier is enlisted, when it is stiled an attestation; secondly, by all officers appointed on a court-martial, thrilly, by the commanders, or master-masters.

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of the Latins, and other enemies, whereby
the city might be invested. is not used at present.

AGGER is also used for the earth dug
out of a ditch or trench, and thrown up
on the brink of it: in which sense, the
Chevalier Folard thinks the word to be under­
stood, when used in the plural number,
since we can hardly suppose they
would raise a number of cavaliers, or
terrasses.

AGGER is also used for a bank or wall,
earched against the sea, or some great
river, to confine or keep it within bounds;
in which sense, agger amounts to the
same with what the ancients called
lunulaus and mole: the Dutch, dyke: and we,
dunst; the Latins, the Dutch, bunds, &c.

AGIADES, in the Turkish armies,
are a kind of pioneers, or rather field
engineers, employed in fortifying the
camp, &c.

AGUERRI, Fr., an officer or soldier
experienced in war: a veteran.

AIDE-DE-CAMP, an officer ap­
pointed to attend a general officer, in the field,
in winter-quarters, and in garrison; he
receives and carries the orders, as occasion
requires. He is taken from the line, and
all aide-de-camp have extra pay allowed
for their duty. This employment is of
greater importance than has been generally
believed: it has been, however, too often
entrusted to young officers of little experi­
nce, and of as little capacity; but in the
service they bestow great attention
on this article. Marshal de Puysegur
mentions the loss of a battle through the
incapacity of an aide-de-camp. On the
English establishment, generals, being
field marshals, have four, lieutenant-
generals, two, and major-generals and bri­
ter-generals one.

In the United States the number is es­
tablished by law; though on service the
number must necessarily be equal to the
exigency, or the various points to which
calls must be made. See American Ed.
Lib. Article STAFF.

AIDE du Pare des Piere, Fr., an officer
in France, acting immediately under the
commission of stores and provisions.

AIDE-MELIA. See Adjutant.

AIGREMORE, a term used by the
artificers in the laboratory, to express
the charcoal in a state fitted for the making
of powder.

AIGUILLE, an instrument used by
engineers to pierce a rock for the lodge­
ment of powder, as in a mine; or to mine
a rock, so as to excavate and make roads.

AILLE, Fr., a wing or flank of an army
or fortification.

AIM, the act of bringing the musket,
piece of ordnance, or any other missile
weapon, to its proper line of direction
with the object intended to be struck.

AIM FRONTLET, a piece of wood
hollowed out to fit the muzzle of a gun,
to make it of an equal height with the
breech, formerly made use of by the gunners,
to level and direct their pieces. It
is not used at present.

AIR-GUN, a pneumatic machine for
exploding bullets, &c. with great vio­
ence.

The common air-gun is made of brass,
and has two barrels: the inside barrel is
of a small bore, from whence the bullets
are exploded; and a large barrel on
the outside of it. There is likewise a syringe
fixed in the stock of the gun, by which
the air is injected into the cavity between
the two barrels through a valve. The
ball is put down into its place in the small
barrel with the rammer, as in any other
gun. Another valve, being opened by the
trigger, permits the air to come behind
the bullet, so as to drive it out with great
force. If this valve be opened and shut
suddenly, one charge of condensed air may
be sufficient for several discharges of bul­
llets; but if the whole air be discharged
on one single bullet, it will drive it out
with uncommon force. This discharge
is effected by means of a lock placed here,
as usual in ordnary guns, for the trigger
being pulled, the cock will go down and
drive the lever, which will open the
valve, and let in the air upon the bullet:
but as the expansive power of the con­
densed air diminishes at each discharge,
its force is not determined with sufficient
precision for the purposes of war: Hence
it has been long out of use among military
men.

In the air-gun, and in all other cases
where the air is required to be condensed to
a very great degree, it will be necessary to
have the syringe of a small bore, viz. not
exceeding half an inch in diameter; because
the pressure against every square inch is
about 15 pounds, and therefore against
every circular inch about 12 pounds. If
therefore the syringe be one inch in di­
ameter, when the atmosphere is injected,
there will be a resistance of 12 pounds
against the piston; and when 10 are in­jected, there will be a force of 120 pounds
to be overcome: whereas 10 atmospheres
act against the circular half-inch piston
whose area is only 1 part so large) with
only a force equal to 30 pounds; or 40
atmospheres may be injected with such a
syringe, as well as 10 with the other. In
short, the facility of working will be
inversely as the squares of the diameter
of the syringe.

AIR-SHAFTS, in mining. See Min­
ing.

ALARM, is a sudden apprehension
upon some report, which makes men run
to their arms to stand upon their guard;
it implies either the apprehension of being
suddenly attacked, or the notice given of
such an attack being actually made; gen­
erally signified by the firing of a cannon,
or rocket, the best of a drum, &c.

ALARM-PAT, in the field, is the ground
appointed by the quarter-master general
for each regiment to march to, in case of
an alarm.
ALARM-BELL, the bell rung upon any sudden emergency, as a line, mutiny, approach of an enemy, or like, called by the French, 'alarme.

ALARM-ENGAGEMENT, a military order, who gained a great name during the wars with the Aloups.

ALERT, originally derived from the French word alerte, which is plural of alert and alerte. The French formerly said alerte, mean something continually in the air, and are ready to be put in action. A general is said to be alert when he is particularly vigilant.

To be kept alert, is to be in continual apprehension of being surprised.

Alert, among the French, is an expression which is used to put soldiers upon their guard. It is called out by a post that may be accosted at the night, to give notice to the one that is destined to support it; and by a sentry to give warning when an attack of the enemy is approaching. We have had an alert, is a military phrase.

ALGEBRA, a peculiar kind of arithmetic, in which every military man ought to be versed, but which is indispensably necessary for officers in the ordnance department.

ALIEN, in law, implies a person born in a foreign country, in contradistinction to a natural born or naturalized person.

ALIGNMENT, implies any thing strait. For instance, the alignment of a battalion means the situation of a body of men when drawn up in rank. The alignment of a camp signifies the relative position of the tents, &c. to form a straight line, from given points.

ALLEY, see ALLEY.

ALLEY, in the ancient military art, the two wings or extremities of an army ranged in order of battle.

ALLEGIANCE, in law, implies the obedience which is due to the laws.

Battle of Allegiance is that taken by an alien, by which he adopts America and renounces the authority of a foreign government. It is also applied to the oath taken by officers and soldiers in pledge of their fidelity to the state.

ALLEGIANT, loyal, faithful to the

ALLEZUERS, the metal taken from the cannon by boring.

ALLOY, a term used by the French to denote the composition of metals used for the fabrication of cannon and mortars, &c.

ALLOY, in a military sense, signifies a treaty entered into by sovereign states, for their mutual safety and defense, in the same alliances may be divided into such as are offensive, where the contracting parties subjoin themselves jointly to attack some other power; and into such as are defensive, where the contracting powers bind themselves to stand by, and defend each other, in case of being attacked by any other power.

Alliances are variously distinguished, according to the objects, the parties in them, &c. Hence we read of equal, unequal, triple, quadruple, grand, offensive, defensive alliances, &c.

ALLODIAL, independent; not feudal. The Allodial of the land is the land and possession of men embodied on any emergency, in a manner similar to our volunteer associations.

ALONGNE, the codage used with floating bridges, by which they are guided from one side of a river to the other.

ALLONGE, a pass or threat with a rapier or small sword; also a long rein used in the exercises of horses.

ALLOY, the mixture of metals that enter into the composition of the metal proper for cannon and mortars.

ALLOY, in a military sense, implies any nation united to another—under a treaty, either offensive or defensive, of both.

ALLUDIE, a kind of military canoe, or small vessel, about 24 feet long, made of the bark of a tree, and used by the nations of Africa.

AMANDE, is also the name of a long-boat used at Calcutta, often 60 to 100 feet long, and generally six or seven broad, they rise from ten to thirty ears.

ALTITUDE, the taking or measuring altitudes, or heights.

ALTITUDE, height, or distance from the ground, measured upwards, and may be both accessible and inaccessible.

Altitude of a figure, is the distance of its vertex from the base, or the length of a perpendicular let fall from the vertex to the base. See American Mill. Lib. Art. Field Fortification.

Altitude of a shot or shell, is the perpendicular height of the vertex above the horizon. See GUNNERY and PROJECTILES.

Altitude, in office, is usually considered as the angle subtended between a
line drawn through the eye, parallel to the horizon, and a visual ray emitted from an object to the eye.

**Altitude**, in *geography*, is the perpendicular height of an object, or its distance from the horizon.** Altitudes** are divided into **accessible** and **inaccessible**.

**Accessible Altitude** of an object, is that whose base you can have access to, i.e., measure the nearest distance between your station and the foot of the object on the ground.

**Inaccessible Altitude** of an object, is that when the foot or bottom of it cannot be approached, by reason of some impediment, such as water, or the like. The instruments chiefly used in measuring altitudes, are the quadrant, theodolite, geometric quadrant, cross, or line of shadows, &c.

**Altitude of the eye**, in perspective, is a right line let fall from the eye, perpendicular to the geometrical plane.

**Altitude of motion**, a term used by some writers, to express the measure of any motion, compared according to the line of direction of the moving force.

**Amazon**, one of those women who are said to have composed a nation of themselves, exclusive of males, and to have derived their name from the cutting off one of their breasts, that it might not hinder or impede the exercise of their arms. This term has often by modern writers been used to signify a bold daring woman, whom the delicacy of her sex does not hinder from engaging in the most hazardous attempts. The recent and former wars with France have furnished several instances of females who have undergone the fatigue of a campaign with alacrity, and run the hazards of a battle with the greatest intrepidity. Several cases occurred also in the American Revolution.

**Ambit**, the compass or circuit of any work or place, as of a fortification or garrison, &c.

**Ambition**, in a military sense, signifies a desire of greater posts, or honors. Every person in the army or navy, ought to have a spirit of emulation to arrive at the very summit of the profession by his personal merit.

**Ambuscade**, in military affairs, implies a body of men posted in some secret or concealed place, till they find an opportunity of falling upon the enemy by surprise; or, it is rather a snare set for the enemy, either to surprise him when marching without precaution; or by posting your force advantageously, and drawing him on by different stratagems, to attack him with superior means. An ambuscade is easily carried into execution in woods, buildings, and hollow places; but requires a more terrible imagination, and greater trouble, in a level country.

**Ambush**, a place of concealment for soldiers to surprise an enemy, by falling suddenly upon him.

**Ammunition**, a French term, similar in its import to the word *cartridge*, as applied to cannon, &c.

**Amende honorable**, in the old armies of France, signified an apology for some injury done to another, or satisfaction given for an offence committed against the rules of honor or military etiquette; and was also applied to an infamous kind of punishment inflicted upon traitors, purricides, or sacrilegious persons, in the following manners: the offendé being delivered into the hands of the hangman, his shirt stripped off, a rope put about his neck, and a taker in his hand; then he was led into court, where he begged pardon of God, the court, and his country. Sometimes the punishment ended there; but sometimes it was only a prelude to death, or banishment to the pillory. It prevails yet in some parts of Europe.

**Ammunition**, implies all sorts of powder and ball, shells, bullets, cartridges, grape-shot, fin, and case-shot; carcasses, granaries, &c.

**Ammunition, or gunpowder**, may be prohibited to be exported.

**Ammunition**, for small arms, in the British service, is generally packed in half barrels, each containing 1,000 musket, or 400 carbine cartridges. An ammunition waggon will carry 20 of these barrels, and an ammunition cart 12 of them: their weight nearly 1 cwt. each.

The cartouch boxes of the infantry are made of many different shapes and sizes, that it is impossible to exactly state what ammunition they will contain; but most of them can carry 60 rounds. See the word *Cartridges*; and for artillery ammunition, see the word *Artillery*, for the field, for the siege, and the defence of a fortified place.

The French pack all their ammunition in waggons without either boxes or barrels, by means of partitions of wood. Their 12 Pr., and 8 Pr. waggons will contain each 14,000 musket cartridges, but their 4 Pr. waggons will contain only 12,000 each.

**Ammunition-bread**, such as is contracted for by government, and served in camp, garrison, and barracks.

**Ammunition-boxes, stockings, skirts, stocks, &c.** such of those articles as are served out to the private soldiers, by government. See **Half-Mounting**.

**Ammunition-waggon**, is generally a four-wheel carriage with shafts; the sides are railed in with staves and raves, and lined with wicker-work, so as to carry bread and all sorts of tools. It is drawn by four horses, and loaded with 1200 pound weight. See **Waggon**.

**Ammunition-cart, a two-wheel carriage with shafts; the sides of which, as well as the fore and hind parts, are enclosed with boards instead of wicker-work. See **Caisson**.
AMMUTETTE. See the word Guns.

AMNISHY, in a military or political sense, is an act by which two belligerent powers at variance promise to forget and bury in oblivion all that is past. AMNISTY is either general and unlimited, or particular and restrained, though most commonly universal, without conditions or exceptions: such as that which passed in Germany at the peace of Osnabruick in the year 1668, and between the United States and Great Britain, in 1783.

AMNESTIE, in a more limited sense, denotes a pardon to persons rebellious, usually with some exceptions; such as was granted by Charles II. at his restoration.

AMNISTIE, Fr. See AMNISTY.

AMORCE, an old military word for fine-grained powder, such as is sometimes used for the priming of great guns, mortars or howitzers; as also for small-arms, on account of its rapid inflammation. A port fire, or quick match.

AMPLITUDE of the range of a projectile. See Projectile.

AMPOULETTE, an old military term used by the French to express the stock of a musket, &c.

AMMUTETTE, a species of offensive weapon which was invented by the celebrated Marshal Saxe. It is fired off in the same manner as a musquet, but is mounted nearly like a cannon. It has been employed with considerable effect during the war of the French revolution, especially among the French, who armed some of their light artillery with it, and found it superior to the one adopted by the Prussians from Marshal Saxe.

ANCARIA, in civil law, implies a guard of soldiers posted in any place for the security of it. Vide Vegetius, lib. i. c. 3. lib. ii. c. 19. lib. iii. c. 5.

ANGARIA, in ancient military writers, means a guard of soldiers posted in any place for the security of it. Vide Vegetius, lib. i. c. 5. lib. ii. c. 19. lib. iii. c. 5.

ANGARIA, in civil law, implies a service by compulsion, as furnishing horses and carriages for conveying corn or other stores for the army.

St. ANDREW, or the Thistle, a nominally military order of knighthood in Scotland. The occasion of instituting this order is variously related.

In 819, Achaius, king of Scotland, having formed a league, offensive and defensive, with Charles, against all other princes, found himself thereby so strong, that he took for his device the Thistle and the Rue, which he composed into a collar of his order, and for his motto, Pour ma defense; intimating thereby, that he feared not the powers of foreign princes, seeing he leaned on the succour and alliance of the French. And though from hence may be inferred, that these two plants, the Thistle and the Rue, were the united symbols of one order of knighthood, yet Menenius divides them into two; making one whose badge was the thistle, whence the knights were so called; and the motto, Nemo me impune lacessit; another vulgarly called Serium ruje, or the garland of rue; the collar of which was composed of two branches or sprigs thereof, or else of several of its leaves: at both these collars hung one and the same jewel, to wit, the figure of St. Andrew, bearing before him the cross of his martyrdom.

But though the thistle has been acknowledged for the badge, and symbol of the kingdom of Scotland, even from the reign of Achaius, as the rose was of England, and the lily of France, &c.; yet there are some who refer the order of the thistle to later times, in the reign of Charles VI. of France; when the league of amity was renewed between that kingdom and Scotland, by which the former received the succour from the latter, at a period of extraordinary distress. Others again place the foundation still later, even as low as the year 1500; but without any degree of certainty. The chief and principal ensign of this order is a gold collar, composed of thistles, interlinked with annuls of gold, having pendant thereto the image of St. Andrew with his cross, and this motto, Nemo me impune lacessit.

Knights of St. ANDREW, is also a nominal military order instituted by Peter III. of Moscovy, in 1698; the badge of which is a golden medal, on one side whereof is represented St. Andrew’s cross; and on the other are these words, Cour Pierre mon arque de toute la Russie. This medal, being fastened to a blue ribbon, is suspended from the right shoulder.

ANCILE, in antiquity, a kind of shield, which fell, as was pretended, from heaven, in the reign of Numa Pomphilus; at which time, likewise, a voice was heard, declaring, that Rome would be mistress of the world as long as she should preserve this holy buckler.

Authors are much divided about its shape: however, it was kept with great care in the temple of Mars, under the direction of twelve priests; and lest any should attempt to steal it, eleven others were made so like it, as not to be distinguished from the sacred one. These Ancilia were carried in procession every year round the city of Rome.

ANDABATE, in military antiquity, a kind of gladiators, who fought hood-witted; having a sort of helmet that covered the eyes and face. They fought mounted on horse-back, or on chariots.
ANGLE, a term used by the French to express chain shot.

ANGEL SHOT. See Chain-shot.

ANGLE, in geometry, is the inclination of two lines meeting one another in a point.

Sometimes angles are denoted by a single letter placed at the point of intersection; but when several lines meet at the same point, each particular angle is denoted by three letters, whereas the middle letter shews the angular point, and the other two letters the lines which form that angle.

The measure of an angle is the arch of a circle, described on the angular point, intercepted between the two lines which form the angle and are contained in that arch, so many degrees, &c. the angle is said to consist makes at the point there it first touches the circumference.

The angle is intercepted between the legs which form the angle.

A Right Angle, is that whose two legs are perpendicular to each other; and consequently the arch intercepted between them is exactly 90° of the quarter of a circle.

An Acute Angle, is that which is less than a right angle.

An Oblique Angle, is that which is greater than a right angle.

The sum of the adjacent angles is always equal to two right angles (15. Eucl. 1.) and therefore, if one of them be acute, the other will be obtuse; and the contrary: whence, if either of them be given, the other is also given, it being the complement of the former to 180°.

Homologous Angles in similar figures are such as retain the same order, reckoning from the first in both figures.

Vertical Angles, are the opposite angles made by two lines cutting or crossing each other. When two lines cut or cross each other, the vertical angles are equal (15. Eucl. 1.)

Alternate Angles, are those cut or obtuse angles made by two lines cutting or crossing each other, and formed by a right line cutting or crossing two parallel lines. Alternate angles are always equal to each other (18. Eucl. 1.)

A rectilined or right lined Angle, is made by straight lines, to distinguish it from the spherical or curvilinear angle.

Angles of contact. Angles of contact may be considered as true angles, and should be compared with one another, though not with right lined angles as being of different kind.

Angle of elevation, in gunnery, is that which the axis of the hollow cylinder, or barrel of the gun, makes with a horizontal line. See Elevation.

Angles oblique are those which are greater than right angles.

Spherical Angle is an angle formed by the intersection of two great circles of the sphere. All spherical angles are measured by an arch of a great circle described on the vertex as a pole, and intercepted between the legs which form the angle.

An Angle bisected is an angle formed by the intersection of two curves, the one concave and the other convex.

Mixed-line Angle, is that comprehended between a right line and a curved line.

Curved-line Angle, is that intercepted between two curved lines meeting each other in one point, in the same plane.

Angle of Reflection, is the angle intercepted between the line of direction of a ray of light, &c. makes at the point where it first touches the body it strikes against, with a line erected perpendicular to the surface of that body.

Angle of Interval between two places is that formed by two lines directed from the eye to those places.

Angle of Refraction, is the angle intercepted between the line of direction of a body rebounding after it has struck against another body, and a perpendicular erected at the point of contact.

Angle at the center, in fortification, is the angle formed at the middle of the polygon, by lines drawn from thence to the points of the two adjacent bastions.

Angle of the curtain, § That which is made by, and contained between the curtain and the flank.

Angle of the polygon, that which is made by the meeting of the two sides of the polygon, or figure in the center of the bastion. See Fortification.

Angle of the triangle, is half the angle of the polygon.

Angle of the bastion, or, § That which is made by the two faces, being the utmost part of the bastion most exposed to the enemy's batteries, frequently called the point of the bastion. See Fortification.

 diminished Angle, only used by some engineers, especially the Dutch, is composed of the face of the bastion, and the exterior side of the polygon.

Angle of the shoulder, or, § Is formed by the intersection of the two sides of the polygon, or figure in the center of the bastion. See Fortification.

Angle of the flank exterior, is that which is before the centre of the curtain, formed by the prolongation of the faces of the bastion, or by both the stanch lines.
of defence, intersecting each other on
planning a fortification.

**Angle of the flanks interior**, is formed
by the flanked line of defence and the cur-
tain; being that point where the line of
defence falls upon the curtain.

**Angle of the line of defence**, is that
angle made by the flank, and the line of
defence.

**Angle of the face**, is formed by the
angle of the face and the line of defence
pointed till they intersect each other.

**Angle of the breast interior**, is the half
of the figure, which the interior polygon
makes with the radius, when they go
from each other in the centre; intersecting
the centre of the gorges of each bastion.

**Angle of the gorge**, is that angle formed
by the prolongation of the curtains, intersect-
ing each other, in the centre of the
gorge, through which the capital line
passes.

**Angle of the ditch**, is formed before
the centre of the curtain, by the outward
line of the ditch.

**Blind angle.** See Angle of the
batten.

**Salient angle.** Is that angle which
points outwards, or towards the country. Such is the angle of the counterscarp before the point of a bastion,
abaft of which the counterscarp passes, through which the centre of the gorge
passes.

**Entering angle.** See Angle of the
batten.

**Angle of the counterscarp**, made by two
sides of the counterscarp, meeting before
the centre of the curtain.

**Angle at the circumference of a circle**, is
an angle formed by two chords in the
circumference of a circle.

**Angle of the circumference**, is the mixed
angle formed by an arched, drawn from
one gorse to another.

**Re-entering angle.** See Entering
angle.

**Angle of the complement of the line of de-
fence**, is the angle formed by the inter-
section of the two complements with each other.

**Front Angles**, are made by the
last men at the extremity of the ranks and
files.

**Rear Angles**, are the two last men of the
rear rank.

**Lead angle**, is a re-entering angle,
consequently not defended.

**Angular**, in a general sense, denotes
something relating to angles, or that
has angles.
permit, who discovering himself, and 
taking the aeronaut's pilot by the hand, 
made him boldly go on and fast march, 
for cried he, "true carrunt Caesar and Car-
sar's fortune." "Caesarem velit fortunam-
gur ejus." 

ANALS, a species of military his-
tory, wherein events are related in the 
chronological order they happened. They 
did not form a perfect history, in being 
only a mere collection of what passes every 
year, as a journal is of what passes every 
day.

ANUNCIADEA, an order of military 
knighthood in Savoy, first instituted by 
Antony, in the year 1409; the collar 
was of 15 links, interwoven one with 
another, and the motto F. E. R. T. indicat-
ing fortuna ejus Florentiam textit. Arna-
deus VIII., changed the image of St. 
Bartholomew, patron of Savoy, which hung 
at the collar, for that of the Virgin Mary; 
and instead of the motto above-mentioned, 
substituted the words of the angel's salu-
tation. Now extant.

ANOLYMPIADES. See Olympic 
field.

ANSE du Piere, a French term for the 
handle of a canon. Those of brass have 
two—Those of iron seldom any—these 
handles serve to pass cords, handspikes, 
or levers, to move more easily to heavy 
body, and are made to represent 
galleries, serpentines, &c.

ANSPESADE. See Aneas.

ANTEMURAILLE, in the ancient 
military art, denoted what now the 
militia generally call the outworks.

ANTE TATURE, in ancient fortifi-
cation, signifies an intrenchment of pul-
ses or sacks of earth, thrown up in 
order to dispute the remainder of a piece 
of ground.

ANTHONY, or Knights of St. An-
thony, a military order instituted by Al-
bert, duke of Savoy, Holstein, and Zea-
land, when he designed to make war 
amongst the Turks in 1522. The knights 
are in a collar of gold made in the form of 
a hermit's girdle, from which hung a stick 
as a staff, with a little bell, as they 
are represented in St. Anthony's pictures.

APPAREILLEUR, are those slopes 
that lead to the platform of the bastion. See 
JUNCTION.

APPAREILLEUR, Fr., an architect 
who superintends the workmen in the 
construction of fortifications, sluices, &c.

APPEAL, might formerly have been 
made, by the prosecutor or prisoner, from 
the sentence, or jurisdiction of a regimental 
to a general court-martial.

APPEL, Fr., a roll call; a beat of 
drum for assembling; a challenge.

APPET, in fencing, a smart beat with 
your blade on that of your antagonist on 
the contrary side to that you have engag-
ed, generally accompanied with a stamp 
of the foot, and used for the purpose of 
breviitg an opening.

APPORTE. This word was applic-
able to French soldiers only, during the 
old monarchy of France, and meant a man 
who for his long service and extraordinary 
bravery received more than common pay. 
Those were a rare instance in which offices 
were distinguished by being able to 
solicit officers appointed.

APPOINTMENT, in a military sense, 
is the pay of the army; it likewise applies 
to warlike habiliments, accoutrements, 
&c.

APPREHEND, in a military sense, 
implies the seizing or confining of any 
person. According to the articles of war, 
every person who apprehends a deserter, 
and attests the fact duly before a magis-
trate, is entitled to receive a reward.

APPROACHES. All the works are 
generally so called that are carried on 
towards a place which is besieged; such as 
the first, second, and third parallels, the 
trenches, spuelums with and without 
trenches, redoubts, places of arms, saps, 
galleries, and lodgments. See these words 
more particularly under the head fortifi-
cation.

This is the most difficult part of a siege, 
and where most lives are lost. The ground 
is disposed inch by inch, and neither 
protected nor maintained without the loss of 
men. It is of the utmost importance to 
make your approaches with as much 
care and to secure them as much as possible, 
that you may not throw away the lives of 
your soldiers. The besieged neglect noth-
ing to hinder the approaches; the 
siege-carts do everything to carry them on; 
and on this depends the taking or defend-
ing of the place.

The trenches being carried to their 
climax, you attack and make yourself mas-
er of their covered-way; establish a lodge-
ment on the counterscarp, and effect a 
break by the sap, or by mine, with sev-
eral chambers, which blow up their in-
trenchments and fortresses, or small mines, 
if they have any.

You cover yourselves with gabions, 
sacs, or tents, and if these 
are wanting, you sink a trench.

You open the counterscarp by saps 
to make yourself master of it; but, before 
you open it, you must mine the flanks 
that defend it. The best attack of 
the place is the face of the bastion, when 
by its regularity it permits regular approa-
ches and attacks according to art. If the place 
be irregular, you must not observe regu-
lar approaches, but proceed according to 
the irregularity of it; observing to hu-
mor the ground, which permits you to 
attack it in such a manner at one place, 
as would be useless or dangerous at 
another, so that the engineer who directs 
the attack ought exactly to know the part
he would attack, its proportions, its force and solidity, in the most geometrical manner.

Approaches, in a more confined sense, signify attacks.

Cautious Approaches, are such trenches as are carried on by the besieged, against those of the besiegers.

APRENTICE, Fr. A pupil.

In France they had apprentices or soldiers among the artillery, who served for less pay than the regular artillery men, until they became perfect in their profession; when they were admitted to such vacancies as occurred in their respective branches. The system is changed.

APRON, in gunnery, a square plate of lead that covers the vent of a cannon, to prevent the charge from the vent caking, and the vent caking and open.

Arrows—of lead for guns, according to Zoroaster, &c.

Large—1 foot long—10 in. wide—8 4
Small—6 inch.

Their dimensions are as follow, viz. for a 42, 57, and a 24 pounder, 15 inches by 13; for an 18, 52, and a 9 pounder, 22 inches by 10; for a 6, 53, 1, and 18 pounder, 10 inches by 8. They are tied fast by two strings of white marline, the length of which, for a 42 to a 12 pounder inclusive, is 18 feet, 9 feet each string; for a 9 to 15 pounder, 12 feet, 6 feet each for each.

APPUI—Point d'appui, or point of bearing, or direction, or support, is any particular given point or body, upon which troops are formed, or by which they are marched in line or column.

APPUI, Fr. to go to the assistance of any body, to second, to back.

Masstr d'APPUI, Fr. breast-height.

AQUEDUCT, a channel to convey water from one place to another. Aqueducts, in military architecture, are generally made to bring water from a spring or river to a fortress, &c. they are likewise used to carry canals over low grounds, and over brooks or small rivers: they are built with arches like a bridge, only not so wide, and are covered above by an arch, to prevent dust or dirt from being thrown into the water—there are also subterraneous aqueducts, such as pipes of wood, lead, or iron. See Muller's Practical Fortification.

The Romans had aqueducts which extended 60 miles. That of Louis XIV. near Maintenon, which carries the river Bute to Versailles, is 7000 toises long.

ARAINDEE, in fortification. See Gallery.

ARKAle, in the ancient art of war, a cross-bow, made of steel, set in a piece of wood, with a string and trigger, bent with a piece of iron fitted for that purpose, and used to throw bullets, large arrows, darts, &c. Also a mathematical instrument called a Jacob's Staff, to measure the height of the stars upon the horizon.

ARBALETE à jale, a stone bow.

ARBALETIER, Fr. a cross-bow man.

ARBALETIER d'une Galiote, Fr. that part of a galley where the cross-bowmen were placed during an engagement.

ARBOUR, Fr. to plant. Arboret l'endroit, to plant the standard.

ARC, Fr. a bow; an arch in building.

ARCH, in military architecture, is a vault or concave building, in form of a curve, erected to support some heavy structure, or passage.

Triumphant Arch, in military history, is a stately monument or erection generally of a semicircular form, adorned with sculpture, inscriptions, &c. in honor of those heroes who have deserved a triumph.

ARCHERS, in military history, a kind of militia or soldiery, armed with bows and arrows. They were much used in former times, but are now laid aside, excepting in Turkey, and in some parts of Asia.

ARCHERY, is the art of shooting with a bow and arrow. The ancient English were famous for being the best archers in Europe, and most of their victories in France were the purchase of the long-bow. The statuas made in 33 Hen. VII. relative to this exercise, are worth a study. It was forbidden, by statute, to shoot at a standing mark, unless it should be a passer, where the archer was to change his mark at every shot. Any person above 24 years old was also forbidden to shoot with any prick-shaft, or flight, at a mark of eleven score yards or under. 33 Hen. VIII. chap. 9. The former was a provision for making good marksman at sight; the latter for giving strength and sinews. The modern rifle has rendered the bow an useless weapon.

ARCHITECTURE, in a military sense, is the art of erecting all kinds of military edifices or buildings, whether for habitation or defence.

Military Architecture, instructs us in the method of fortifying cities, sea-ports, camps, buildings, powder magazines, barracks, &c. Military architecture is divided into regular and irregular fortification.

Regular fortification consists in having all its sides and angles equal among themselves.

Irregular fortification is composed of parts where the sides and angles are not equal or uniform among themselves. This species of fortification is permanent or temporary.

The permanent one is constructed for the purpose of remaining a long time, and for the protection of large towns.

The temporary one is that which is erected in cases of emergency. Under this denomination are contained all sorts of works which are thrown up to seize a pass or gain an eminence, or those which are
ARM

1. To give the ship such a figure, or outward form, as may be most suitable to the service for which she is intended. 2. To find the exact shape of the pieces of timber necessary to compose such a fabric. 3. To make convenient apartments for the artillery, ammunition, provisions, and cargo: together with suitable accommodation for the officers and men.

ARCHITRAVE, the master beam, or course of the cornice.

AREA, the superficial content of any rampart, or other part of a fortification.

ARMADA, a Spanish term, signifying a small squadron.

ARMATURA, in ancient military history, signifies the fixed and established military exercise of the Romans, nearly in the sense we use the word exercise. Under this word is understood, the throwing of the spear, javelin, shooting with bows and arrows, &c.

ARMIGER, a Spanish term, signifying a small squadron.

ARMATORY, a warehouse of arms, or a place where the military habiliments are kept, to be ready for use.

ARMOR, denotes all such habiliments as serve to defend the body from wounds, especially darts, a sword, a lance, &c. A complete suit of armor formerly consisted of a helmet, a shield, a cuirass, a coat of mail, a gantlet, &c. now almost universally laid aside.

ARMORER, a person who makes or deals in armor, or arms; also a person who keeps them clean.

ARMY, in a general sense, signifies all kinds of weapons, whether used for offence or defence.

Fire-Arms, arc cannon, mortars, howitzers, grenades, firelocks, rifles, fusils, carbines, guns, and pistols; or any other machine discharged by inflamed powder.

ARMS, in a general sense, denotes something provided with, or carrying arms.

An Armored body of men, denotes a military corps or detachment, provided with arms and ammunition, ready for an engagement.

Armed, in the sea language. A cross-bar-shot is said to be armed, when some rope-yarn, or the like, is rolled about the end of the iron bar which runneth through the shot.

Armed ship, is a vessel taken into the public service, and equipped in time of war, with artillery, ammunition, and warlike instruments: in the British service an armed ship is commanded by an officer who has the rank of master and commander in the navy, and upon the same establishment with sloops of war, having a lieutenant, master, purser, surgeon, &c.

ARMEE, Fr. See ARMY.

ARMEMENT, Fr. A levy of troops, equipage of war, either by land or sea.

ARMES a l'Epreuve, a French term for armor of polished steel, which was proof against the sword or small arms; but its weight so encumbered the wearer, that modern tacticians have wholly rejected its use.

Armes a la ligeure, Fr. Light-troops, who were employed to attack in small bodies, as opportunity occurred. See Riflemen, &c.

ARMET, Fr. A casque or helmet.

ARMELLINE, an esquire or armor-bearer, who formerly attended his knight or chieftain in war, combat, or tournament, and who carried his lance, shield, or other weapons with which he fought.

ARMILUSTRIUM, in Roman antiquity, a feast observed among the Roman generals, in which they sacrificed, armed, to the sound of trumpets, and other war-like instruments.

ARMISTICE, a temporary truce, or cessation of arms for a very short space of time only.

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In a legal sense, arms may extend to any thing that a man wears for his own defence, or takes in his hand, and uses in anger, to strike, throw at, or wound another. It is supposed, that the first artificial arms were of wood, and only employed against beasts; and that Belus, the son of Nimrod, was the first that was armed in war; whence, according to some, came the appellation belium. Diodorus Siculus takes Belus to be the same with Mars, who first trained soldiers up to battle. Arms of stone, and even of brass, appear to have been used before they came to iron and steel. Josephus assures us, that the patriarch Joseph first taught the use of iron arms in Egypt, among the troops of Pharaoh with a quoit and buckler.

The principal arms of the ancients were hatchets, scythes, lances, swords, and bucklers: the Saxons used the halberd, bow, arrows, cross-bow, &c. By the ancient laws of England, every man was obliged to bear arms, except the judges and clergy. Under Henry VIII. it was expressly enjoined on all persons to be regularly instructed, even from their tender years, in the exercise of the arms then in use, viz. the long bow and arrows; and to be provided with a certain number of them.

But by the common law of England now it is an offence for persons to wear arms armed with dangerous weapons; but gentlemen, both in and out of the army, may wear common arms, according to their quality.

Arms of parade, or courtesy, were those used in the ancient jousts and tournaments which were commonly unshod lances, swords without edge or point, wooden swords, and even canes.

Bells of Arms, or Bell Tents, a kind of tents in the shape of a cone, where a company’s arms are lodged in the field. They are generally painted with the colour of the facing of the regiment; they have some much out of use.

Parade of Arms, a kind of combat, when anciently one or more cavaliers undertook to defend a place against all attacks.

Place of Arms. See Fortification.

Stand of Arms, a complete set of arms for one soldier.

Army, in artillery, are the two ends of an axletree. See Axletree, under the word Carriage.

Army, a large number of soldiers, consisting of artillery, foot, dragoons, and husars or light horse, completely armed, and provided with munitions, a train of artillery, ammunition, provisions, staff forage, &c., and under the command of a general, having lieutenant-generals, major-generals, brigadier-generals, colonels, lieutenants-colonels, majors, captains, and subalterns, and the suitable staff to each portion. An army is composed of divisions, corps, brigades, regiments, battalions, and squadrons; and is generally divided into three or more co-operating corps, and formed into three lines; the first of which is called the front line, a part of which forms the van guard; the second, the main body; and the third, the rear guard, or corps of reserve. The centre of each line is generally protected by the foot; the cavalry and light troops form the right and left wings of each line; and sometimes a squadron of horse is posted in the intervals between the battalions. When an army is drawn up in order of battle, the horse are frequently placed at five feet from each other, and the foot at three. In each line the battalions are distant from each other about 150 feet, which is nearly equal to the extent of their front; and the same rule holds good of the squadrons, which have about 300 feet distance, being the extent of their own front. These intervals are left for the squadrons and battalions of the second line to range themselves against the intervals of the first, that both may more readily march through those spaces to the enemy. The front line is generally about 300 feet from the centre line; and the centre line as much from the rear, or corps of reserve; that there may be sufficient room to rally when the squadrons or battalions are broken.

European armies anciently were
An army is said to fight when it lies encamped or in cantonments on the opposite side of the different passes which lead to a principal object of defense.

An army is said to blockade a place, when, being well provided with heavy ordnance and other warlike means, it is employed to invest a town for the direct and immediate purpose of reducing it by assault or famine.

An Army of observation is so called because of its advanced positions and scouting movements it is constantly employed in watching the enemy.

An Army of Reserve may not improperly be called a general depot for effective service. In cases of emergency the whole or detached parts of an army of reserve are generally employed to recover a lost day or to secure a victory. It is likewise sometimes made use of for the double purpose of secretly increasing the number of active forces and rendering the aid necessary according to the exigency of the moment, and of deceiving the enemy with respect to its real strength. Such was the army at Dyjonn, before Bonaparte entered Italy.

Firing Army, a strong body of horse and foot, commanded for the most part by a lieutenant-general, which is always in motion, both to cover its own parts and to keep the enemy in continual alarm. A naval or Sea Army, is a number of ships of war, equipped and manned with sailors, mariners, and marines, under the command of a superior officer, with the requisite inferior officers under him.

ARNAUTS, Turkish light cavalry, whose only weapon was a saber very much curved. Some are in the Russian service.

ARQUEBUSE a Crec, an old piece of fire-arms, resembling a musquet, but which is supported on a rest by a lock of metals, and is fired from the left shoulder. It is longer than a musquet, but of larger calibre, and was originally used to fire through the loop of the breech;

ARQUEBUSIER, a French term, formerly applied to all the soldiers who carried fire-arms, whether cavalry or infantry.

ARRAY, order of battle. See BAT-

ARREAR, officers who anciently had the charge of seeing the soldiers duly appointed in their armor.

ARREAR, in the army, were the difference between the full pay and subsistence of each officer, which was directed to be paid once a year by the agent. See PAY.

ARRESTE, a French phrase, similar in its import to the Latin word rei-movum. It consists of a small piece of steel or iron, which was formerly used in the construction of fire-arms, to prevent the piece from going off.

ARRIÈRE, in a familiar phrase among military men in France. This pistol is in arrest, or stopped.

ARRAY, order of battle. See BAT-

ARTICLES OF WAR, are known rules and regulations for the better government of an army. The articles of war of the United States underwent an alteration in 1860, and are of date 10th April of that year; they consist of 103 articles; all that relates to the army not comprehended therein, are published in general orders or in established regulations, issued from time to time from the War Department, or by the commanding officer of the army, copies of which are delivered to the officers of the army. In England they may be altered and enlarged at the pleasure of their king. And in certain cases extend to civilians—as when
by proclamation any place shall be put
under martial law; or when people fol-
low a camp or army for the sale of mer-
chandise, or serve in any civil capacity. It
is ordained, that the articles of war shall
be read in the circle of each regiment or
compny mustered once every month, or
often if the commanding officer thinks
proper. A recruit or soldier is not liable
to be tried by a military tribunal, unless
it can be proved that the articles of war
have been duly read to him.

ARTIFICER, among the French, is un-
derstood as comprehending everything
which enters the composition of fire
works as the sulphur, saltpetre, charcoal,
&c. See FIRE WORKS.

ARTIFICER or ARTIFICIER, he
who makes fire works, or works in the
artillery laboratory, who prepares the
fuses, bombs, grenades, &c. It is also
applied to the military smiths, collar-
makers, &c. and to a particular corps ap\npointed by the general of an army, to en-
camp the train of artillery, apparatus,
ammunition, as well as the battalions of the
artillery, appointed for its service and de-

defence. The figure of the park of artillery,

is that of a parallelogram, unless the situa-
tion of the ground renders another neces-
sary. The Park of Artillery is generally placed
in the centre of the second line of encamp-
ment, and sometimes in the rear line, or
corps of reserve. In both places the muzz-
laces of the guns are in a line with the fronts
of the serjeants tents of the regiments of
artillery and infantry. Some generals
choose to place the park about 300 paces:
before the centre of the front line of the
army. But let the situation be where it
will, the manner of forming the park is
almost every where the same, except that
some artillery officers differ in the disposi-
tion of the carriages; others again divide
the equipage as well as the guns into bri-
gades, placing the first in the front line,
the second in the next, and so on; yet the
most approved method, is to di-
vide the whole into brigades, placing
the guns of the first to the right of the front
line; and their ammunition behind them,
in one or more lines. The different bri-
gades should be all numbered, as well as
every wagon belonging to them. Exa-
ample, ist brigade, front line, No. 1, 2, &c.
2d brigade, 2d line, No. 1, 2, &c.
3d brigade, front line, No. 1, 2, &c. and so
of all the rest. This method prevents confu-
sion in the forming and breaking up of the
park, as also on a march; besides, accor-
ding to the numbers, the stores therein con-
tained are known.

ARTILLERY—The proportion of arti-
illery and ammunition necessary to accom-
mpany an army in the field, to lay siege to
a fortified place, or to defend one, must
depend upon so many circumstances, that
it is almost impossible, in a work of this
kind, to lay down any positive rules as
guides on the subject: the following prin-
ciples are drawn from the best authorities:
Field Artillery is divided into Battalions, Artillery of the Park, and Horse Artillery.

The Battalion Guns include all the light pieces attached to regiments of the line, which they accompany in all manœuvres, to cover and support them. The following kinds of field ordnance are attached to battalions of infantry, by different powers in Europe:

French—two 3 Prs. per battalion.

English—two 6 do. 4 do. 3 do. 2 do. 1 do.

Danes—three 6 do. 4 do. 3 do.

Australians—three 6 do. 4 do. 3 do.

Prussians—two 6 do. 4 do. 3 do. 2 do. 1 do.

Hanoverians—two 3 Prs. per battalion.

The Artillery of the Park is composed of all kinds of field ordnance. It is destined to form batteries of position; that is to say, to occupy advantageous situations, from which the greatest effect may be produced, in supporting the general movements of an army, without following it, like the battalion guns, through all the detail of its manœuvres. The park of artillery is connected with an army in the field, generally consists of twice as many pieces of different kinds, varied according to the country in which it is to act, as there are battalions in the army. Grihaulta proposes the following proportions between the different kinds of artillery for the park of field ordnance, viz., two-fifths of 8 Prs., two-fifths of 6 Prs., and one-fifth of 4 Prs., or reserve for battalion guns. In a difficult country, it may be 4 of 12 Prs., 8 of 9 Prs., and 4 of 4 Prs. and for every 100 pieces of cannon he allot 4 Howitzers; but this proportion of Howitzers is much smaller than what is generally given.

Ammunition for Field Artillery.

A proportion of Ammunition and Stores for each Species of Field Ordnance, viz.,

Medium—12 Prs.

Heavy 6 Prs.—3 light 6 Prs., as they are always attached to Battalions of Infantry, and one 5½ inch Howitzer; according to the British Service.

<table>
<thead>
<tr>
<th>Proportion of Ammunition and Stores</th>
<th>1 Medium</th>
<th>2 Medium</th>
<th>1 Heavy</th>
<th>2 Heavy</th>
<th>1 Light</th>
<th>2 Light</th>
</tr>
</thead>
<tbody>
<tr>
<td>shot fixed to wood</td>
<td>24</td>
<td>30</td>
<td>68</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>round</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>shells</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>carcasses</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>* The 12 Prs. which have a small box on their limbers, carry 6 round shot and a case shot, with 6 cartridges of 4 lbs. and 4 of 2½ lbs. of powder, more than the above proportion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cartridges of flannel and stores</th>
<th>4 lb. 120</th>
<th>00</th>
<th>00</th>
<th>00</th>
<th>00</th>
<th>00</th>
<th>00</th>
</tr>
</thead>
<tbody>
<tr>
<td>filled with powder</td>
<td>24</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>1½</td>
<td>12</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>10 oz.</td>
<td>00</td>
<td>00</td>
<td>125</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>1 lb.</td>
<td>00</td>
<td>00</td>
<td>144</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>12 oz.</td>
<td>00</td>
<td>00</td>
<td>28</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cartridges flan. empty</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>bursting 10 oz.</td>
<td>00</td>
</tr>
<tr>
<td>Tubes of tin—N. P. 173</td>
<td>178</td>
</tr>
<tr>
<td>Portfires—long small</td>
<td>18</td>
</tr>
<tr>
<td>Fusils—drove</td>
<td>00</td>
</tr>
<tr>
<td>Powder, mealed lbs.</td>
<td>00</td>
</tr>
<tr>
<td>Travelling carriages</td>
<td>1</td>
</tr>
<tr>
<td>and limbers</td>
<td>1</td>
</tr>
<tr>
<td>Aprons of lead</td>
<td>1</td>
</tr>
<tr>
<td>Spunges with staves</td>
<td>2</td>
</tr>
<tr>
<td>and heads</td>
<td>2</td>
</tr>
<tr>
<td>Wad hooks, with staves</td>
<td>1</td>
</tr>
<tr>
<td>Handspikes, traversing</td>
<td>2</td>
</tr>
<tr>
<td>Tompons with collars</td>
<td>1</td>
</tr>
<tr>
<td>Trucks, Hanoverian</td>
<td>00</td>
</tr>
<tr>
<td>Straps for lashing sides</td>
<td>00</td>
</tr>
<tr>
<td>Arms</td>
<td>00</td>
</tr>
<tr>
<td>Tarpaulins, gun</td>
<td>00</td>
</tr>
<tr>
<td>Limbers</td>
<td>00</td>
</tr>
<tr>
<td>Lintstocks with cocks</td>
<td>1</td>
</tr>
<tr>
<td>and heads</td>
<td>1</td>
</tr>
<tr>
<td>Draught chains, prs.</td>
<td>00</td>
</tr>
<tr>
<td>Couples for chain traces</td>
<td>06</td>
</tr>
<tr>
<td>Spare heads, spunge</td>
<td>1</td>
</tr>
<tr>
<td>Intrenching tools</td>
<td>1</td>
</tr>
<tr>
<td>Felling axes</td>
<td>1</td>
</tr>
<tr>
<td>Pick axes</td>
<td>1</td>
</tr>
<tr>
<td>Hand bills</td>
<td>1</td>
</tr>
<tr>
<td>Spades</td>
<td>2</td>
</tr>
<tr>
<td>Marline, tarred-skeins</td>
<td>1</td>
</tr>
<tr>
<td>Twine</td>
<td>00</td>
</tr>
<tr>
<td>Hambro'line—do.</td>
<td>00</td>
</tr>
<tr>
<td>Packthread—do.</td>
<td>00</td>
</tr>
<tr>
<td>Grease—skirks</td>
<td>1</td>
</tr>
<tr>
<td>Boxes</td>
<td>00</td>
</tr>
<tr>
<td>Tallow—lbs.</td>
<td>1</td>
</tr>
<tr>
<td>Lanterns, dark</td>
<td>1</td>
</tr>
<tr>
<td>Jacks, lifting</td>
<td>1</td>
</tr>
<tr>
<td>Handcreep</td>
<td>00</td>
</tr>
<tr>
<td>Wagons with hps. and painted covers</td>
<td>2</td>
</tr>
<tr>
<td>Flambeaux pattern</td>
<td>00</td>
</tr>
</tbody>
</table>
This proportion of ammunition and stores is carried in the following manner:

<table>
<thead>
<tr>
<th>Proportion of Ammunition and Stores</th>
<th>12 Pr. Medium</th>
<th>6 Pr. Heavy</th>
<th>6 Pr. Light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wad militia</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Tanned hides</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Men’s harness (12 to 13 set)</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>New rope, 6 do. sets</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Patent rope, 6 do. sets</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Draw, 6 do. sets</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comb train</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Paper</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wanties</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Hemp halters</td>
<td>14</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Waggons</td>
<td>97</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Nose bags</td>
<td>14</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Corn sacks</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Forage cords, sets</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Rope, tarred, 2 inch</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>&amp; Linch pins</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Clouts, body</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Clouts, 6d.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spare blade staves</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Horse, for guns</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Drivers, for guns</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Drivers, for wagons</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Tube boxes, with straps</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Portfire sticks</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Cutting knife</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Drawing do.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wertzels, ounces</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Needles, large</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cartouches of leather</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Copper staves</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Copper, 6 do. sets</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Drums, 2 inch</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Thumb stalls</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Prismatic</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Quadrant of brass</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diagonal scale</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Copper salt box</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Percs for drawing fuses, pairs</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Funnels of copper</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Compasses of steel</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saw, tenant</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Files, square</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rasps, half round</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flex, oz.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tov, oz.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saw set</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mallets of wood</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Setters do.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

12 Pr. Medium—Has no limber boxes, but has two waggons attached to it, and the ammunition and stores divided between them.

6 Pr. Heavy—Carries 36 round, and 14 case shot in limber boxes, with a proportion of the small stores; and the remainder is carried in one waggons.

6 Pr. Light—Carries 36 round, and 16 case shot on the limber, with a proportion of the small stores for immediate service; and, if acting separately, must have a wagon attached to it, to carry the remainder. But two 6 pounders attached to a battalion, have only one wagon between them.

58 Howitzer, Light—Has 52 shells, 4 case shot, and two cannass in the limber, boxes, with such as the small stores are required for immediate service; and has two waggons attached to carry the rest.

One common pattern ammunition wagon carries the following numbers of rounds of ammunition of each kind:

<table>
<thead>
<tr>
<th>Kind</th>
<th>No. of Rounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Pr. Medium</td>
<td>52</td>
</tr>
<tr>
<td>6 Pr. Heavy</td>
<td>150</td>
</tr>
<tr>
<td>6 Pr. Light</td>
<td>150</td>
</tr>
<tr>
<td>6 Pr. Howitzer</td>
<td>160</td>
</tr>
<tr>
<td>6 Inch Howitzer</td>
<td>84</td>
</tr>
</tbody>
</table>

The waggons, however, attached to the different parts of artillery in England, which have not been stated, are loaded with only the following ammunition, and drawn by three horses:

<table>
<thead>
<tr>
<th>Kind</th>
<th>No. of Rounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Prs. Medium</td>
<td>66</td>
</tr>
<tr>
<td>6 Prs. Heavy</td>
<td>150</td>
</tr>
<tr>
<td>6 Prs. Lights</td>
<td>150</td>
</tr>
<tr>
<td>5 or 6 Howitzer</td>
<td>60</td>
</tr>
</tbody>
</table>

The horse artillery having wagons of a particular description, carry their ammunition as follows:

<table>
<thead>
<tr>
<th>Kind</th>
<th>Shot</th>
<th>Rounds</th>
<th>Shells</th>
<th>Carriages</th>
<th>Total No.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Prs. light, on the limber.</td>
<td>52</td>
<td>8</td>
<td>8</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do. — in one waggons.</td>
<td>52</td>
<td>8</td>
<td>8</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Prs. light, on the limber.</td>
<td>52</td>
<td>8</td>
<td>8</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do. — in one waggons.</td>
<td>52</td>
<td>8</td>
<td>8</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Prs. heavy, in one waggons.</td>
<td>52</td>
<td>8</td>
<td>8</td>
<td>150</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* A small limber box has lately been added to the medium to Pro which carries round shot and 6 case shot, with a small proportion of the small stores. See note one.

* Though the waggons will contain 20,000 carriages. It is customary to load them with only 18 half barrels of 1000 each, and a half barrel of 92.
The following proportion of Artillery, Ammunition, and Carriages, necessary for four French Armies of different degrees of Strength, and acting in very different Countries, is extracted from Durand, on Artillery.

### ARMY

<table>
<thead>
<tr>
<th>Armies</th>
<th>Field</th>
<th>Modern</th>
<th>Old</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Battalions</td>
<td>80</td>
<td>28</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>Battalion guns</td>
<td>160</td>
<td>56</td>
<td>64</td>
<td>96</td>
</tr>
<tr>
<td>8 Pcs.</td>
<td>72</td>
<td>24</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>Reserve, 4 Pcs.</td>
<td>40</td>
<td>10</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>Total pieces of ord.</td>
<td>312</td>
<td>112</td>
<td>128</td>
<td>192</td>
</tr>
<tr>
<td>Carriage 12 Pcs.</td>
<td>30</td>
<td>14</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>for ord. 8 Pcs.</td>
<td>81</td>
<td>27</td>
<td>32</td>
<td>54</td>
</tr>
<tr>
<td>Including 4 Pcs.</td>
<td>215</td>
<td>78</td>
<td>98</td>
<td>128</td>
</tr>
<tr>
<td>John How.</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Total ord. carriages</td>
<td>341</td>
<td>124</td>
<td>145</td>
<td>210</td>
</tr>
<tr>
<td>Ammunition 12 Pcs.</td>
<td>58</td>
<td>32</td>
<td>36</td>
<td>48</td>
</tr>
<tr>
<td>8 Pcs.</td>
<td>144</td>
<td>48</td>
<td>64</td>
<td>96</td>
</tr>
<tr>
<td>4 Pcs.</td>
<td>208</td>
<td>72</td>
<td>80</td>
<td>120</td>
</tr>
<tr>
<td>6 In. How.</td>
<td>24</td>
<td>12</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Wagon for musq. cart.</td>
<td>128</td>
<td>42</td>
<td>48</td>
<td>72</td>
</tr>
<tr>
<td>Large wagons for park</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Total ord. wagons</td>
<td>594</td>
<td>216</td>
<td>241</td>
<td>368</td>
</tr>
<tr>
<td>Smiths, 2 Large forges, 2 Small</td>
<td>14</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total forges</td>
<td>14</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Cap. of Artillery</td>
<td>27</td>
<td>10</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>The army</td>
<td>20</td>
<td>10</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>New iron</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Wood for spr. cart.</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Anchors, &amp;c. for pontoons</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total store carriages</td>
<td>66</td>
<td>28</td>
<td>32</td>
<td>49</td>
</tr>
<tr>
<td>Pontoon upon their carriages</td>
<td>36</td>
<td>18</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Spare pontoon carriages</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total pontoon carriages</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>40</td>
</tr>
</tbody>
</table>

### Recapitulation

<table>
<thead>
<tr>
<th>Kind</th>
<th>Pieces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordnance carriages</td>
<td>341</td>
</tr>
<tr>
<td>Ammunition carriages</td>
<td>594</td>
</tr>
<tr>
<td>Store</td>
<td>60</td>
</tr>
<tr>
<td>Forges</td>
<td>14</td>
</tr>
<tr>
<td>General total of carriages</td>
<td>1055</td>
</tr>
</tbody>
</table>

This table contains, beside the proportion of ordnance with each army, also the quantity of ammunition with each piece of ordnance, and the number of rounds of musketer ammunition carried for the infantry, for each wagon in the French service, having its particular allotment of ammunition and stores, it needs but to know the number of wagons of each description, to ascertain the quantity of ammunition and stores with an army. The following is the number of wagons usually attached to each piece of field ordnance in the French service, and the quantity of ammunition carried with each.

<table>
<thead>
<tr>
<th>Kind of Ordnance and Number of Wagons Attached to each</th>
<th>Case</th>
<th>Round</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Pcs. Ammunition, &amp;c.</td>
<td>96</td>
<td>24</td>
</tr>
<tr>
<td>8 Pcs. + 4 Pcs. Ammunition &amp;c.</td>
<td>90</td>
<td>24</td>
</tr>
<tr>
<td>4 Pcs. Ammunition &amp;c.</td>
<td>60</td>
<td>24</td>
</tr>
<tr>
<td>6 In. How. &amp;c.</td>
<td>72</td>
<td>24</td>
</tr>
<tr>
<td>3 Large U. Wagon (case)</td>
<td>44</td>
<td>11</td>
</tr>
<tr>
<td>4 Small U. Wagon (round)</td>
<td>50</td>
<td>13</td>
</tr>
<tr>
<td>Total of stores</td>
<td>119</td>
<td>30</td>
</tr>
</tbody>
</table>

The French horse artillery wagon, called the souff, carries 57 rounds for 6 pounders; or 50 for 6 inch howitzers. The following is a proportion of ammunition for one piece of field artillery of each kind, by different powers in Europe.
Battalion Guns: The following are the usual positions taken by battalion guns, in the most essential manœuvres of the battalion, to which they are attached; but the established regulations for the movements of the infantry in the British service must be between the divisions, and in other situations the artillery attached to it, that they afford no authority for a guide on the subject. In review, both guns are to be placed, when in line, on the right of the regiment; unlimbered and prepared for action. The guns 10 yards apart, and the left gun 10 yards from the right of the battalion. Nos. 7 and 8 dress in line of the infantry in the British service.

In the most essential manœuvres of the regiment breaks into column, the guns will be limbered up and wheeled by the regiment; unlimbered and prepared for the movement. The guns will be limbered up and wheeled by the regiment, when in line, on the right of the regiment. In review, both guns are to be placed, when in line, on the right of the regiment; unlimbered, and prepared for the movement. The guns will be limbered up and wheeled by the regiment, when in line, on the right of the regiment.

The usual method by which the guns take part in the firing while in line, is by two discharges from each piece, previous to the firing of the regiment; but this is usually regulated by the commanding officer, before the review. Though the guns when in line with a regiment in review, always remain in the intervals; in other situations of more consequence, every favorable spot which presents itself, from which the enemy can be more effectually annoyed, should be taken advantage of.

In column, if advancing, the guns must be in front; if retiring, in the rear of the column. If in open column of more than one battalion, the guns in the centre, and at the extremities, will be placed, when in line, on the right of the regiment. In review, both guns are to be placed, when in line, on the right of the regiment; unlimbered, and prepared for the movement. The guns will be limbered up and wheeled by the regiment, when in line, on the right of the regiment.

When in hollow square, the guns will be placed at the weakest angles, and the limbers in the centre of the square. In passing a bridge or defile in front, the guns will be the first to pass; unless from any particular position they can more effectually enflade the defile; and thereby better open the passage for the infantry. But in retiring through a defile, the line guns will remain to the last, to cover the retreat.

General rule—With very few variations, the guns should attend in all the movements of the battalion, that division of it, to which they are particularly attached; and every attention should be paid in thus adapting the movements of the guns to those of the regiment, that they be not entangled with the divisions of the line, and never so placed as to obstruct the view of the pivot, and thereby the just formation of the line; but should always seek those positions, from which the enemy can be most annoyed, and the troops to which they are attached, protected.

If at any time the battalion guns of several regiments should be united and formed into brigades, their movements will then be the same as those for the artillery of the park.

Artillery of the Park. The artillery of the park is generally divided into brigades of 4, 6 or 8 pieces, and a reserve, according to the force and extent of the front of an army. The reserve must be composed of about one-sixth of the park, and must be placed behind the first line. If the front of the army be extensive, the reserve must be divided.

The following are the principal rules for the movements and positions of the brigades of artillery: they are mostly translated from the Aide-Memoire, a new French military work.

In a defensive position, the guns of the largest caliber must be posted in those points, from whence the enemy can be discovered at the greatest distance, and from which may be seen the whole extent of his front.

In an offensive position, the weakest points of the line must be strengthened by the largest calibers; and the most distant from the enemy; those heights on which the army in advancing may rest its flanks, must be secured by them, and from which the enemy may be fired upon obliquely.

The guns should be placed as much as possible under cover; this is easily done upon heights, by keeping them so far back that the muzzles are only to be seen over them; by proper attention may situations may be found of which advantage may be taken for this purpose, such as banks, ditches, &c. every where to be met with.

A battery in the field should never be
discovered by the enemy till the very moment it is to open. The guns may be masked by being a little retired, or by being covered by troops, particularly cavalry.

To enable the commanding officer of artillery to choose the proper positions for his field batteries, he should of course be made acquainted, with the effect intended to be produced, with the points that are to be attacked, and with the points that are to be supported; that he may place his artillery so as to support, but not incommode the infantry; nor take up such situations with his gun, as would be more advantageously occupied by the line. That he may not place his batteries too soon, nor too much exposed; that he may cover his front and his flanks, by taking advantage of the ground; and that he may not venture too far out of the protection of the troops, unless some very decided effect is to be obtained thereby.

The guns must be so placed as to produce a cross fire upon the position of the enemy, and upon all the ground which he must pass over in an attack. They must be separated into many small batteries, to divide the fire of the enemy, while the fire from all these batteries may at any time be united to produce a decided effect against any particular point.

These points are the débâcles of the enemy, the heads of their columns, and the weakest points in the front. In an attack of the enemy’s position, the cross fire of the guns must become direct, before it can impede the advance of the troops; and must annoy the enemy’s positions nearest to point attacked, when it is no longer safe to continue the fire upon that point itself.

The shot from artillery should always take an enemy in the direction of its greatest dimension; it should therefore take a line obliquely or in flank, but a column in front.

The artillery should never be placed in such a situation, that it can be taken by an enemy’s battery obliquely, or in flank, or in the rear; unless a position under these circumstances offers every prospect of producing a most decided effect, before the guns can be destroyed or placed hors de combat.

The most elevated positions are not the best for artillery, the greatest effects may be produced from a height of 50 or 40 yards at the distance of about 600, and about 15 yards of height to 200 of distance.

Positions in the rear of the line are bad for artillery, because they alarm the troops, and offer a double object to the fire of the enemy.

Positions which are not likely to be shifted; but from whence an effect may be produced during the whole of an action, are to be preferred; and in such positions a low breast work of 2 or 3 feet high may be thrown up, to cover the carriages.

Artillery should never fire against artillery, unless the enemy’s troops are covered, and his artillery exposed; or unless your troops suffer more from the fire of his guns, than his troops do from yours.

Never abandon your guns till the last extremity. The last discharges are the most destructive; they may perhaps be your salvation, and crown you with victory.

The parks of artillery in Great Britain are composed of the following ordnances: 4 medium 12 pounders; 4 desauliers 6 pounders; and 4 light 44 inch howitzers.

The following is the proposed line of march for the three brigades when acting with different columns of troops, as settled in 1798.

```
<table>
<thead>
<tr>
<th>13 Pounders</th>
<th>6 Pounders</th>
<th>Howitzers</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Guns</td>
<td>4 Guns</td>
<td>4 Howitzers</td>
</tr>
<tr>
<td>8 Ammuni-</td>
<td>8 Ammuni-</td>
<td>8 Ammuni-</td>
</tr>
<tr>
<td>tion Wag-</td>
<td>tion Wag-</td>
<td>tion Wag-</td>
</tr>
<tr>
<td>gons</td>
<td>gons</td>
<td>gons</td>
</tr>
<tr>
<td>1 Forge Cart</td>
<td>1 Forge Cart</td>
<td>1 Forge Cart</td>
</tr>
<tr>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
</tr>
<tr>
<td>1 Forge Cart</td>
<td>1 Forge Cart</td>
<td>1 Forge Cart</td>
</tr>
<tr>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
</tr>
<tr>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
</tr>
<tr>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
</tr>
<tr>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
<td>1 Store Wag</td>
</tr>
<tr>
<td>1 Spare Wag</td>
<td>1 Spare Wag</td>
<td>1 Spare Wag</td>
</tr>
<tr>
<td>1 Wagon to 1 Wagon for 1 Wagon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>carry bread</td>
<td>carry bread</td>
<td>bread and</td>
</tr>
<tr>
<td>and oats</td>
<td>and oats</td>
<td>oats</td>
</tr>
<tr>
<td>2 Wagons</td>
<td>2 Wagons</td>
<td>2 Wagons</td>
</tr>
<tr>
<td>with mus-</td>
<td>with mus-</td>
<td>with mus-</td>
</tr>
<tr>
<td>ket ball</td>
<td>ket ball</td>
<td>ket ball</td>
</tr>
<tr>
<td>cartridges</td>
<td>cartridges</td>
<td>cartridges</td>
</tr>
<tr>
<td>18 Total</td>
<td>18 Total</td>
<td>18 Total</td>
</tr>
</tbody>
</table>
```


Necessary considerations in forming an estimate for this service.

The force, situation, and condition of the place to be besieged; whether it be susceptible of more than one attack; whether lines of circumvallation or counter-vallation will be necessary; whether it be situated upon a hill, upon a rocky soil, upon good ground, or in a marsh; whether divided by a river, or in the neighborhood of one; whether the river will admit of forming inundations; its size and depth; whether the place be near a wood, and whether that wood can supply stuff for fascines, gabions, &c. whether it be situated near any other place where a depot can be formed to supply stores for the siege. Each of these circumstances will make a very considerable difference in proportioning the stores, &c. for a siege. More artillery will be required for a place suscep-
of two attacks, than for the place which only admits of one. For this last there must be fewer pieces of ordnance, but more ammunition for each piece. In case of lines being necessary, a great quantity of intrenching tools will be required, and a numerous field train of artillery. In case of being master of any garrison in the neighborhood of the besieged town, from whence supplies can readily be drawn, this must be regarded as a second park: and too great a quantity of stores need not be brought at once before the besieged place. The number of batteries to be opened before the place must determine the number of pieces of ordnance; and on the quantity of ordnance must depend the proportion of every species of stores for the service of the artillery.

There must be a battery to enfilade every face of the work to be besieged, that can in any way annoy the besiegers in their approaches. These batteries, at least that part of them to be allotted for guns, need not be much longer than the breadth of the rampart to be enfiladed, and will not therefore hold more than 5 or 6 heavy guns; which, with two more to enfilade the opposite branch of the covert way, will give the number of guns for each ricochet battery. As the breaching batteries, from their situation, effectually mask the fire of the first or ricochet batteries, the same artillery generally serves for both. Having thus ascertained the number of heavy guns, the rest of the ordnance will bear the following proportion to them:

Mortars. From 8 inch to 13 inch, about 1.
Small Mortars. About 1.
Heavy Howitzers. About 1.
The fewer kinds of ordnance which compose the demand the better, as a great deal of the confusion may be prevented, which arises from various kinds of ammunition and stores being brought together.

The carriages for the ordnance are generally as follows:
For 24 Prs. 5-6 the number of guns.
For Mortars, 0-9 the number of mortars.
For Howitzers, 2 the number of howitzers.
For Stone Mortars, 0-7 the number of mortars.
Ammunition for the ordnance.
24 Prs. At 100 rounds per gun.
Mortars, howitzers, and stone mortars, at 200 rounds per piece of ordnance.
The following proportions of artillery and ammunition was demanded by a very able officer, for the intended siege of Lisle, in 1704, which place was thought susceptible of two attacks.
64—24 Prs. with carriages complete, at 5 lbs. per gun, per day, for the whole siege; half of them en ricochet, with 20 lbs. of powder; the other half with the full charge of 40 lbs.

Case and Grape shot, at one round per gun, per day, of each: 6 lbs. per charge.
Shells for guns, two rounds do.
Flowerd cartridges, for the case and grape, and shells.
Quill tubes for the case and grape.
Quill tubes for the round shot.
Spare, one tenth.
25—10 Inch mortars, on iron beds, at 50 shells each per day, for the whole siege. 3 lbs. of powder charge; 2 lbs. 10 oz. for bursting.
Round shot; 1 oz. to a charge; 50 rounds per mortar each day for 10 mortars 3 days; 2 lbs. of powder each.
Hard granades; 2 to a charge; the same as the pound shot.
Caricases; round; 1 per mortar, per day.
8—8 Inch howitzers, on travelling carriages.
Sells for each per day, during the siege.
Case shot; 5 rounds per day each.
Caricases; 1 per day each.
Powder; 1 lb. per charge; 2 lbs. 14 oz. for bursting.
24—2 Inch mortars, on wooden beds. 50 Shells for each, per day, for the whole siege; charge 8 oz.; 12 oz. for bursting.
Flowerd cartridges, for the number of rounds.
To the tubes in the same proportion.
Pomfrets, one half the number of rounds with tubes.
Fuses, one tenth to spare.
Match, 50 cwt.
Spare carriages for 24 Prs. seven.
Devil carriages.
Sling carts.
Block carriages.
Forge carts.
Stone wagons, with iron and coals.
Triangles gins, complete.
Laboratory tents.
Small petards.
Grates for heating shot.

Of the arrangement of Artillery at a siege.
The first arrangement of the artillery at a siege is to the different batteries raised near the first parallel, to enfilade the faces of the work on the front attacked, which fire on the approaches. If these first batteries be favorably situated, the artillery may be continued in them near the whole of the siege; and will save the erection of any other gun batteries, till the besiegers arrive on the crest of the place.

However frequently happens, from local circumstances, that the besiegers cannot avail themselves of the most advantageous situations for the first batteries. There are four situations from which the defenses of any face may be destroyed; but not from all with equal facility. The best position for the first batteries is perpendicular to the prolongation of the face of the work to be enfiladed. If this position cannot be attained, the next that
the trenches, at such parts where the fire from the besieger's batteries crosses them; it becomes in some degree unavoidable: the mortars are generally at first arranged in battery, adjoining the first gun batteries, or upon the prolongation of the glacis, in which place they are in fact but an enlargement of the sap, open upon the traverses of the covert way. These mortars should consist of one-third more than the number of guns. Mortars; about one-fourth the number of mortars. Stone Mortars; one-tenth the number of guns. Shells; 400 for each of the 10 and 13 inch mortars, and 600 for each of the smaller ones.

The guns will be of the following calibers: one-third of 18 prs.; one-third of 24, 9, and 4 pounders in equal proportions. If the place does not possess any very extraordinary means of defence, it will be very respectfully supplied with 600 rounds of ammunition per gun for the two larger calibers, and 900 for each of the others.

Gun Carriages; one-third more than the number of guns.

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<td>presents itself is, on that side of the prolongation which takes the face in reverse; and under as small an angle as possible. From both these positions the guns must fire as ricochets. But if the ground, or other circumstance, will not admit of either of these being occupied by ricochet batteries, the battery to destroy the fire of a face must be without the prolongation, so as to fire obliquely upon the outside of the face. The last position, in point of advantage, is directly parallel to the face. From these two last positions the guns must fire with the full charges. The second, or breaching batteries at a siege, are generally placed on the crest of the glacis, within 15 or 18 feet of the covert way; which space serves as the equalment; but if the foot of the revetment cannot be seen from this situation, they must be placed in the covert way, within 15 feet of the counterscarp of the ditch. These mortars are generally at first arranged in battery, adjoining the first gun batteries, or upon the prolongation of the glacis, in which place they are certainly least exposed. Upon the establishment of the half parallels, batteries of howitzers may be formed in their extremities, to enflade the branches of the covert way; and upon the formation of the third parallel, batteries of howitzers and stone mortars may be formed to enflade the flanks of the bastions, and annoy the besieged in the covert way. In the lodgement on the glacis, stone and other mortars may also be placed, to drive the besieged from their defences. A great object in the establishment of all these batteries, is to make such an arrangement of them, that they may drive the fire of each other as little as possible; and particularly of the first, or ricochet batteries. This may very well be prevented till the establishment on the crest of the glacis, when it becomes in some degree unavoidable: however, even the operations on the glacis may be so arranged, that the ricochet batteries may be masked till the breaching batteries be in a great state of forwardness; a very secure method, and which prevents the soldiers in trenches being alarmed by the shot passing over their heads, in to raise a parado, or parapet, in the rear of the trenches, at such parts where the fire from the besieger's batteries crosses them. For further details on this subject, and for the manner of constructing batteries, see the word Batteries; also the words Ricochet, Breach, Magazines, Platform, &amp;c. 31. ARTILLERY and Ammunition for the defence of a Fortified Place.</td>
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 Beds for mortars; one-third to spare.
Carriages for howitzers; one-third to spare.
 Howitzer Grenades: 4 or 2000 for the two first classes; 2000 in the three following classes; and from 1500 to 6000 in the three last classes.
 Rammer Grenades: 2000 for the first class; 1000 for the four following classes; and 500 for the sixth class; none for the two last.
 Fuzes: one-fourth more than the number of pieces to spare.
 Sand Bag: one for every piece of ordnance in the large places, and one-fourth less in the small ones.
 Musquets: 1 per soldier, and the same number to spare.
 Pistols, pairs: one half the number of musquets.
 Lead or Ball: 50 per musquet, and 10 per pistol.
 Powder for small arms: 5 pounds for every musquet in the garrison, including the spare ones.

The above proportions are taken from Durrubee's Manuel De l'Artisteur. The following method of regulating the management of the artillery, and estimating the probable expenditure of ammunition in the defence of a fortified place, is extracted from a valuable work on fortifications lately published at Berlin. It is particularly applied to a regular hexagon in which the siege is divided into three periods, viz.

1st. From the first investiture to the first opening of the trenches, about 5 days.
2d. From the opening of the trenches to the effecting a lodgment on the glacis, about 18 days.
3d. From this time to the capitulation, about 5 days.

First Period. Three guns on the barbette of each bastion and on the barbettes of the ravelins in front of the gate ways, half 24 prs. and half 18 prs., three 9 prs. on the barbettes of each of the other ravelins.

Twelve 18 prs. and twelve 9 prs. in reserve.
One 15 inch mortar in each bastion.
Six of 4 inch in the salient angles of the covert way.
Do, in reserve.

Three mortars.

The 12 prs. in reserve, are to be ranged behind the curtain, on which side they may be required, and the 4 prs. in the outworks, all to fire en ricochet over the parapet. By this arrangement, the whole of the barbette guns are ready to act in any direction, till the side of attack is determined on; and with the addition of the reserve, 42 pieces may be opened upon the enemy the very first night they begin to work upon the trenches.

The day succeeding the night on which the trenches are opened, and the side to be attacked determined, a new arrangement of the artillery must take place. All the 24 and 18 prs. must be removed to the front attacked, and the other bastions, if required, supplied with 12 prs. The barbettes of the bastions on this front must have each 3 guns, and the twelve 18 prs. may be ranged behind the curtain. The six mortars in reserve must be placed, two in each of the salient angles of the covert way of this front, and with those already there mounted as howitzers, to fire down the prolongations of the capitals. Three 4 pounders in each of the salient places, and the ravelins on the attacked fronts, to fire over the palisading, and five 9 prs. in the ravelin of this front. This arrangement will bring 47 guns and 18 mortars to fire on the approaches after the first night, and with a few variations will be the disposition of the artillery for the second period of the siege. As soon as the enemy's batteries are fairly established, it will be no longer safe to continue the guns en barbette, but embrasures must be opened for them; which embrasures must be occasionally masked, and the guns assume new directions, as the enemy's fire grows destructive; but may again be taken advantage of, as circumstances offer. As the enemy gets near the third parallel, the artillery must be withdrawn from the covert way to the ravelin, or to the ditch, if dry, or other favorable situations; and, by degrees, as the enemy advances, to the body of the place. During this period of the siege, the embrasures must be prepared in the flanks, in the curtain which joins them, and in the faces of the bastions which flank the ditch of the front ravelins. These embrasures must be all ready to open, and the heavy artillery mounted in them, the moment the enemy attempts a lodgment on the glacis.

Every effort should be made to take advantage of this favorable moment, when the enemy, by their own works, must mask their former batteries, and before they are able to open their new ones.

The expenditure of ammunition will be nearly as follows:
First period of the siege; 5 rounds per gun, per day, with only half the full charge, or one-sixth the weight of the shot, and so only such guns as can act.
Second period; 20 rounds per gun, per
ARTILLERY.

REGIMENTAL ARTILLERY.  

Regiments of artillery are always encamped, half on the right, and half on the left of the park. The company of bombardiers (when they are joined into companies) are placed in the left half of the park. The right half of the park is occupied by the companies of howitzers, field artillery, and heavy artillery. The park is divided into sectors, each sector being occupied by a company. The sector commander is responsible for the discipline and order of his company.

The artillery park is surrounded by a ditch and a palisade. The artillery are stationed in the ditch and behind the palisade. The park is divided into sectors, each sector being occupied by a company. The sector commander is responsible for the discipline and order of his company.

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Regiment of Artillery. The corps of artillery, with all its dependencies, is, as it were, the general instrument of the army. It is impossible to attack fortified places, or to defend them, without artillery; and an army in the field, which wants artillery, can not so well make head against one that is well provided with it. For this reason it is, that at all times governments have taken great care to provide proper officers of learning and capacity to govern, repair and keep in order, this essential part of military force.

The strength of a regiment of artillery depends upon the circumstances of the country, the quantity of troops to maintain, the number of fortifications and points to be defended. It had always been the custom, to regulate the corps of artillery according to the French method; but, the celebrated king of Prussia fixed his regiments of artillery on another plan, and produced a great change, upon which the Prussian system of fortifications was followed by all nations. The British method, from which we borrowed in the revolution, may be useful to know as well as the Prussian.

In 1628, and probably long before, the privileges from which the rest of the army were excluded, viz. of having the first rank and the best quarters; neither could any carriage or waggon presume to match before theirs, except that belonging to the treasurer.

In 1705, we find the first mention made of English royal artillery, before that time it was only called the train of artillery. It then consisted only of 4 companies, under the command of general Bortigny. From that period it gradually increased to 6 battalions, each battalion consisting of 8 companies, besides 1 invalid battalion equal in its establishment to the others, but confined in duty to the home garrisons, or to Jersey, Guernsey and Hermuda, commanded by a colonel commandant, 1 colonel, 1 second colonel, 1 major, who have no com. anes. Each company in time of war generally consisted of 120 men, commanded by 1 captain, 2 lieutenant captains, 2 first, and 1 second lieutenant. In time of peace the companies were reduced to 50 men each.

Frederick the second of Prussia, found his army in a very good condition, excepting the corps of artillery and engineers, little esteemed by the rest of the army; and the officers without commissions. Knowing how necessary it was to have a good corps of artillery and engineers, and how impossible it was to secure that important object without having officers learned in every branch of military mathematics; immediately drafted all the capable officers into the garrison regiments, supplying their places with persons of capacity; and giving them all commissions, with rank equal to that of the officers of the guards, and an extra salary. This method of proceeding established the use and reputation of that corps; induced the nobility and men of rank (provided they had capacity) to engage in it sooner than elsewhere; which brought it to that summit of high renown, it since enjoyed.

The French army consisted of 12 battalions, 8 for the field, and 4 for garrison. Each battalion had 12 companies, namely, 1 company of bombardiars, 4 of miners, 1 of artificers, and 9 of artillerists. The first, or bombardier companies, were composed of 1 captain, 2 lieutenants, 3 upper and 6 under fire-workers, 2 serjeants, 4 corporals, 2 drummers, and 60 bombardiers. The miners had the same commissioned officers, with 3 serjeants, 6 corporals, 2 drummers, 33 miners, and 33 sappers. The artificers had the same officers and non-commissioned officers as the miners, with 30 artificers, and 35 pontoniers. All the artillery companies had 3 commissioned and 6 non-commissioned officers, 2 drummers, and 60 artillerists. The colonial, lieutenant-colonel, and major's companies, had each a captain-lieutenant; and each battalion had further, 1 chaplain, 1 auditor, 1 adjutant, 1 quarter-master, 1 doctor, 3 surgeons, 1 sergeant-major, 1 drum-major, 6 musicans, and 1 provost.

By the law of the 26th March, 1802, sect. 2, the United States artillery consists of five battalions, consisting of 1 colonel, 1 lieutenant colonel, 4 majors, 1 adjutant, 20 companies, each composed of 1 captain, 1 first lieutenant, 1 second lieutenant, 2 caissons, 4 serjeants, 4 corporals, 4
your rear-guard. On such occasions, all Cannon is of infinite use for a rear-guard, &c.

1. Twelve wagons with stores for the enemy's forming into order of battle. A forge on four wheels, and I wagons of artillery, form the rear-guard. each.

2. When you are obliged to pass a defile, or a ditto, and best light troops, best cavalry, some good artillery, form the rear-guard. each.

3. Best wagons with tools, and pioneers to mend the roads.

4. Artillery to plant itself at the head of the troops, in the place marked for it, in such a manner, that the whole artillery form the centre column, except some brigades, one of which marches at the head of each column, with guns loaded and burning matches, preceded by a detachment for their safety. The French almost invariably place their baggage in the centre.

Suppose the enemy's army in a condition to march towards the heads of your columns: the best disposition for the march is in 4 columns only; that of the centre for the artillery; for it is then easy to form it in order of battle. Hence it is equally convenient for each brigade of artillery to plant itself at the head of the troops, in the place marked for it, in such a manner, that the whole disposition being understood, and well executed, the line of battle may be quickly formed in an open country, and in the presence of any enemy, without risking a surprise; by which method the artillery will always be in a condition to act as soon as the troops, provided it marches in brigades.

If your march should be through a country full of defiles, some cavalry and other light troops must march at the head of the columns, followed by a detachment of grenadiers and a brigade of artillery; cannon being absolutely necessary to obstruct the enemy's forming into order of battle.

When you decamp in the face of the enemy, you must give most attention to your rear-guard. On such occasions, all the baggage, ammunition, provisons, and artillery, march before the troops; your best light troops, best cavalry, some good brigades of infantry, together with some brigades of artillery, form the rear-guard. Cannon is of infinite use for a rear-guard, when you are obliged to pass a defile, or a river; and should be placed at the entry of such defile, on an eminence, if there be one, or on any other place, from whence they can discover the ground through which the enemy must march to attack the rear-guard.

A detachment of pioneers, with tools, must always march at the head of the artillery, and of each column of equipage or baggage.

If the enemy be encamped on the right flanks of the march, the artillery, &c. should march to the left of the troops, and vice versa. Should the enemy appear, the troops from that way, by wheeling to the right or left by divisions; and the artillery, which marches in a line with the columns, passes through their intervals, and forms at the head of the front line, which is formed of the columns that flank nearest the enemy, taking care at the same time that the baggage be well covered during the action.

Though we have said armies generally march in 3 columns, yet where the country will allow it, it is better to march in a greater number; and let that number be what it will, the artillery must form the centre columns. See American Mil. Lib. on the march of troops.

Line of march of the artillery for a large army, as established before the French revolution:

1. A guard of the army; the strength of which depends on the commander in chief.

2. The companies of miners (excepting a detachment from each, dispersed in various places, to mend the roads) with implements of tools, drawn by 2 horses, assisted by pioneers.

3. The brigades of artillery's front-guard, with four light 6 pounders loaded, and matches burning.

4. The trumpeters on horse-back.

5. The Bag-guns, drawn by 2 horses, and ten 12 pounders more, by 4 horses each.

6. Twenty wagons with stores for the said guns, and 1 spare one, by 4 horses each.

7. All the pontoons, with the wagons thereto belonging.

8. Eight 9 pounders, by 3 horses each.

9. Fifteen wagons with stores for said guns, by 4 horses each, and 2 spare ones.

10. Guns and capstans, with their proper workmen, 3 wagons, with 2 horses each.

11. A forge on four wheels, and 1 wagon, 4 horses each.

12. Twelve heavy 24 pounders, by 16 horses each.

13. Sixteen wagons with stores for ditto, and 2 spare ones, by 4 horses each.

14. A wagon with tools, and pioneers to mend the roads.

15. Nine light 24 pounders, by 8 horses each.

16. Twelve wagons with stores for ditto, and 2 spare ones, by 4 horses each.

17. A forge and wagon, by 4 horses each.

18. Nine 24 pounders, by 8 horses each.

19. Twelve wagons with stores for ditto, and 2 spare ones.

20. Twelve 22 pounders, by 8 horses each.
21. Sixteen waggons with stores for ditto, and 2 spare ones.
22. Sixteen 5.8 inch mortars, by 2 horses each.
23. Twenty-five waggons with stores for ditto, and 2 spare ones.
24. Ten 6 inch mortars, by 4 horses each.
25. Twenty waggons with stores for ditto, and 2 spare ones.
26. Six 10 howitzers, by 6 horses each.
27. Twenty waggons with stores for ditto, and 2 spare ones.
28. A wagon with tools, and men to mend the roads.
29. Ten 8 inch mortars, by 4 horses each.
30. Twenty waggons with stores for ditto, and a spare one.
31. Sixteen 12 inch mortars, by 3 horses each.
32. Thirty waggons with stores for ditto, and 2 spare ones.
33. Eighteen 18 inch stone mortars, by 10 horses each.
34. Eighteen waggons with stores for ditto, and a spare one.
35. Sixteen waggons with stores for ditto, and 2 spare ones.
36. Eight 9 pounders, by 3 horses each.
37. Sixteen waggons with stores for ditto, a and a spare one.
38. Twenty 6 pounders, by 2 horses each.
39. Twenty waggons with stores for ditto, and a spare one.
40. Two slung-waggons, and 2 truck-carriages, 4 horses each.
41. Twenty 3 pounders, by 1 horse each.
42. Ten waggons with stores for ditto, and a spare one.
43. A wagon with tools, &c.
44. A forge and wagon, by 4 horses each.
45. Twelve 2 and 1 pounders, by 1 horse each.
46. Six waggons with stores for ditto.
47. Twenty 6 pounders, by 2 horses each.
48. Ten waggons with stores for ditto.
49. Twenty spare carriages, for various calibres.
50. Eighteen ditto.
51. Fifty spare limbers.
52. Ten 18 pounders, by 6 horses each.
53. Twenty waggons with stores for ditto, and 4 spare ones.
54. Twenty waggons with ammunition and stores.
55. Two 12 pounders, by 4 horses each.
56. Four waggons with stores for ditto.
57. Fifty waggons with stores.
58. A wagon with tools, and men to mend the roads.
59. A forge and wagon, by 4 horses each.
60. A hundred waggons with stores, and 4 spare ones.
61. Four 2 and 1 pounders, by 1 horse each.
62. A hundred waggons with stores, and 3 spare ones.
63. Two hundred waggons, and 2 spare ones.
64. Two hundred and fourteen waggons belonging to the artillery baggage; some with 4, 3, and 2 horses each.
65. The artillery rear-guard.
66. The rear-guard from the army.

Hor. e Artillery.—The French horse artillery consists of 8 Prs. and 6 inch Howitzers.

The English of light 12 Prs. light 6 Prs. an light 5 inch Howitzers.
The Austrian and Prussian horse artillery have 6 Prs. and 55 inch Howitzers.
The United States by a law of April 12, 1803, authorised the raising of a regiment of horse artillery of ten companies, of the same number of officers and men as the artillery regiment of the old establishment to the company.

Officers of Artillery. The commander of the army is commander in chief of the artillery; the colonels of artillery act under his orders; they are entrusted with one of the most laborious employments, both in war and peace, requiring the greatest ability, application, and experience. The officers in general should be good mathematicians, and engineers, should know all the powers of artillery, the attack and defence of fortified places; in a word, every thing which appertains to that very important corps.

Artiller.f, Fr. an officer belonging to the French service.
Artiller.i Fr. a man who works on pieces of ordnance as a founder; or one who serves them in action.
Arx, in the ancient military art, a fort, castle, &c. for the defence of a place.
Arzegages, Fr. batons or canes with iron at both ends. They were carried by the Estradiots or Albanian cava­ liers who served in France under Charles VIII. and Louis XII. Asappes, or Azaures, auxiliary troops which are raised among the Christians subject to the Turkish empire. These troops are generally placed in the front to receive the first shock of the enemy.

Ascent. See Gunner.y.
Aspect, is the view or profile of land or coast, and contains the figure or representation of the borders of any particular part of the sea. These figures and representations may be found in all the charts or directories for the sea coast, the Italians call them demonstration. By means of this knowledge you may ascertain whether the land round the shore be high; if the coast itself be steep or sloping; best in the form of an arc, or extended in straight lines; round at the top, or rising to a point. Every thing, in a word, is brought in a correct state before the eye, as far as regards harbours.
To give an

swamps, bogs, gulphs, adjacent church-

es, trees, windmills, &c. See Recon-

oition in Amer. Mil. Lit.

A menacing Aspect. An army is said
to hold a menacing aspect, when by ad-
vanced movements or positions it gives
to its antagonist cause to apprehend an
attack. Appointed to act.

Aspers, Fr. a piece of ordnance which
carry a 32 pound shot. The piece itself

was 42-50 pounds.

Assailir, Fr. to attack; to assail.

This old French term applies equally to
to bodies of men and to individuals.

Assault, a furious effort to carry
a fortified post, camp, or fortress, where
the assailants do not screen themselves by
any works. While an assault during a
siegé continues, the batteries cease, for
fear of killing their own men. An assault
is sometime made by the regiments that
guard the trenches of a siege, sustained
by detachments from the army.

To repulse an assault, to cause the
assailants to retreat, to beat them back.

To carry by assault, to gain a post by
storm. See Assault.

Assailer, Fr. to besiege.

Assiégeer, Fr. to besiege.

Assemblée, Fr. the assembling to-
gether of an army. Also a call, or beat
of the drum. See Assembly.

Assemblée, the second beating of the
drum before a march, at which the men
strike their tents, if encamped, roll them
up, and stand to arms. See Drum.

Assessment, in a military sense, signi-
ifies a certain rate which is paid in
England by the county treasurer to the
recover general of the land-tax, to in-
demnify any place for having raised the
militia; which sum is to be paid by
the receiver-general into the exchequer.
The sum to be assessed is five pounds for
each man, where no annual certificate of
the state of the militia has been trans-
mitted to the clerk of the peace: if not
paid before June yearly it may be levied
on the parish officers. Such assessment
where there is no county rate is to be rais-
ed as the poor's rate.

Assiette, Fr. the immediate scite
or position of a camp.

Association, any number of men
embodied in arms for mutual defence in
their district; and to preserve the public
tranquility therein, against foreign or de-
mo- tic enemies.

Astreagal. See Cannon.

Attack. Officers and non-commissioned
officers are said to be attached to
the respective army, regiment, battalion,
troop, or company with which they are
appointed to act.

Attacke, Fr. the seal and signa-
ture of the colonel-general in the old
French service, which were affixed to the
commissions of officers after they had been
duly examined.

Attack any general assault, or on-
set, that is given to gain a post, or break
a body of troops.

Attack of a siege, is a furious assault
made by the besiegers, by means of trench-
es, galleries, saps, breaches, or mines,
&c. by storming any part of the front
attack. Sometimes two attacks are car-
ried on at the same time, between which
communication must be made. See Siege.

False attacks are never carried on
with that vigor and briskness that the
others are; the design of them being to
favor the true attack, by amusing the
enemy, and by obliging the garrison to
suffer duty in dividing their forces, that
the true attack may be more successful.

Regular attack, is that which is
executed on in strict conformity to the rules
of art. See Siege, approaches, &c.

To attack in front or flank, in fortifi-
cation, means to attack the salient angle,
or both sides of the bastion.

This phrase is familiarly used with re-
spect to bodies of men which attack each
other in a military way.

Attack and Defence. A part of the
drill for recruits learning the sword exer-
cise, which is commenced with the
recruit stationary on horse back, the teacher
riding round him, striking at different
parts as openings appear, and instruc-
ting the recruit how to ward his several at-
tacks; it is next executed in a walk, and,
as the learner becomes more perfect, in
speed; in the latter under the idea of a
pursuit. The attack and d fence in line
and in speed form the concluding part of
the sword exercise when practised as a
review of cavalry. It is to be observed,
that although deminated in speed, yet
when practising, or at a review, the pace
of the horse ought not to exceed three
quarters speed.

Attention, a cautionary word
used as a preparative to any particular ex-
ercise or manoeuvre. Garde-a-vous, which
is pronounced Gar-a-voos, has the same
signification in the French service.

Attestation, a certificate made
by some justice of the peace of the enlist-
ment of a recruit. This certificate is to
bear testimony, that the recruit has been
brought before him in conformity to law
and has declared his assent or dissent to such
enlistment; and, if according to the law
he shall have been, and is duly enlisted,
that the proper oath has been administered to him by the said magistrate.

ATilt, in the attitude of thrusting with a spear, &c., as was formerly the case in tournaments, &c.

AVANT, Fr. foremost, most advanced, is the advanced covert-way which is made against the approaches of a man or body of men without changing front; it is half the former step.

AVANT-dues, Fr. The pile-work which is formed by a number of young trees on the edge of the glacis to oppose the approaches of an enemy.

AVANT-duc, Fr. the pile-work which is formed by a number of young trees on the edge or entrance of a river. They are driven into the ground with battering rams or strong pieces of iron, to form a level face, by means of strong planks being nailed upon it, which serve for the foundation of a bridge. Boats are placed wherever the avant-duc terminates. The avant-duc is had recourse to when the river is so broad that there are not boats sufficient to make a bridge across. Avant-ducs are made on each side of the river.

AVANT-garde, Fr. the ditch of the countercamp next to the country. It is due at the foot of the glacis. See FORTIFICATION.

AVANT-guard. See Van Guard.

AVANT-train, Fr. The limbers of a field-piece, on which are placed one or two boxes containing ammunition enough for immediate service.

AUDITOR, the person who audits the public accounts.

AVENUE, in fortification, is any kind of opening or inlet into a fort, bastion, or other work.

AVOET, or AUGETTE, Fr. a wooden pipe which contains the powder by which a man is left fire-proof.

AVUNE de Paris, a French measure, containing 44 inches, used to measure sand-bags.

AUTHORITY, in a general acceptance of the term, signifies a right to command, and a consequent right to be obeyed. The appointment of officers in the army of the United States is in the nomination by the president, and approved by a majority of the Senate. The president may however dismiss at his discretion. The king of Great Britain has the power to exercise military authority without control, as far as regards the army; and may appoint or dismiss officers at his pleasure.

AUXILIARY, foreign or subsidiary troops which are furnished to a belligerent power in consequence of a treaty of alliance, or for pecuniary considerations. Of the latter description may be considered the Hessians that were employed by Great-Britain to enslave America.

AWARD, the sentence or determination of a military court.

AXLE-TREE, a transverse beam supporting a carriage, and on the ends of which the whisels revolve. See Carriages.

B.

BACK-step, the retrograde movement of a man or body of men without changing front; it is half the former step.

BACKWARDS, a technical word made use of in the British service to express the retrograde movement of troops from line into column, and vice versa. See Wheel.

BAGGAGE, in military affairs, signifies the clothes, tents, utensils of divers sorts, and provisions, &c., belonging to an army.

BAGGAGE-Waggon. See Wagons.

BAGPIPE, the name of a musical warlike instrument, of the wind kind, used by the Scots regiments, and sometimes by the Irish. Bagpipes were used by the Danes, by the Romans, and by the Asatics at this day; there is in Rome a most beautiful bas-relief, a piece of Greek sculpture of the highest antiquity, which represents a bae-piper playing on his instrument exactly like a modern highlander. The Greeks had also an instrument composed of a pipe and blown-up skin. The Romans in all probability borrowed it from them. The Italians still use it under the names of pia and cruciare.

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The Bagpipe has been a favorite instrument among the Scots. There are two varieties: the one with long pipes, and bounded with the mouth; the other with short pipes, filled with air by a bellows, and played on with the fingers; the first is the loudest and most ear-piercing of all music, is the genuine highland pipe, and is well suited to the warlike genius of that people. It formerly roused their courage to battle, alarmed them when secure, and collected them when scattered: solaced them in their long and painful marches, and in times of peace kept up the memory of the gallantry of their ancestors, by tunes composed after signal victories. The other is the Irish bagpipe.

BAGES, in military employments, are used on many occasions, viz.,

Sand-Bags, generally 16 inches diameter, and 50 high, filled with earth or sand, to repair breaches, and the embrasures of batteries, when damaged by the enemy's fire, or by the blast of the cures. Sometimes they are made less, and placed three together, upon the parapets, for the men to live through.

Earth-Bags, containing about a cubical foot of earth, are used to raise a parapet in haste, or to repair one that is beaten down. They are only used when the ground is rocky, and does not afford earth enough to carry on the approaches.

BALANCE, Fr. a term used in the French artillery to express a machine in which stores and ammunition are weighed.

BALL, in the military art, comprehends all sorts of balls and bullets for fire-arms, from the cannon to the pistol,
BALLS of Lead, of different kinds.

<table>
<thead>
<tr>
<th>KINDS</th>
<th>Number of Pounds</th>
<th>Diameter in Inches</th>
<th>No. made from one ton of Lead</th>
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<tbody>
<tr>
<td>Wall pieces</td>
<td>6 1/2</td>
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<td>14,760</td>
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<td>Musquets</td>
<td>14 1/2</td>
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<td>12,480</td>
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<td>Cannonballs</td>
<td>24</td>
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<td>4,800</td>
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<td>Pistols</td>
<td>34</td>
<td>5 1/2</td>
<td>78,048</td>
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<tr>
<td>Bri. guns</td>
<td>40</td>
<td>4 1/2</td>
<td>104,180</td>
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Lead balls are packed in boxes containing each 1 cwt. About 4 pounds of lead in the cwt. are generally lost in casting.

Smoke-Balls are made of an iron shell, sometimes a piece of mortar, and filled and covered with various coats of composition, until it con

Smoke-Balls are always distinguished by their equal quantity of sulphur, pitch, and rosin; or rather meal powder, saltpetre, and rosin 3, sulphur 4, and ros

cellular powder, rosin 4, steel or iron tinfoil 2, birch wood charcoal 1, well rammed into a shell for that purpose, having various holes filled with small car molecules, loaded with musket

Smoke-Balls are prepared as above, with this difference, that they contain 5 to 1 of pitch, rosin and saw-dust. This composition is put into shells made for that purpose, having 4 holes to let out the smoke. Smoke-balls are thrown out of mortars, and continue to smoke from 25 to 30 minutes.

Smoke-Balls are prepared by a composition of mealed powder, rosin, saltpetre, pitch, sulphur, rasper horses and asses hoofs, burnt in the fire, assa-fracta, scarap

Smoke-Balls are fired out of mortars, howitzers, or cannon. Use which you 4.5178,048 composition is mealed powder 2; saltpetre 1 2, sulphur 1, rosin 3, sulphur 5, assa-fracta 8, extract of toad's poison 12, other poisonous substances 12, made into balls as above directed. At the commencement of the French Revolution poisoned balls were exhibited to the people said to have been fired by the Austrians, particularly at the siege of Lisle. We have seen some of this sort. They contained glass, small pieces of iron, &c. and were said to be concocted together by means of a greasy composition which was impregnated with poisonous matter. In 1792, they were deposited in the Archives of Paris.

Red hot Balls are tied out of mortars, howitzers, or cannon. Use which you will, the ball must be made red-hot, which is done upon a large coal fire in a square hole made in the ground, 6 feet every way, and 4 or 5 feet deep. Some make the fire under an iron grate, on which the shell or ball is laid; but the best way is to put the ball into the middle of a clear burning fire, and when red-hot, all the fiery particles must be swept off. Whatever machine you use to throw the red-hot ball out of, it must be elevated according to the distance you intend it shall range, and the charge of powder must be put into a flannel cartridge, and a good wad upon that; then a piece of wood of the exact diameter of the piece, and about 25 inches thick, to prevent the ball from setting fire to the powder; then place the ball on the edge of the mortar, &c. with an instrument for that purpose, having various holes filled with various sorts of poisonous matter. In 1792, they were deposited in the Archives of Paris.

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Anchor-Balls are made in the same way as the light-balls, and filled with the same composition, only with this addition, that these are made with an iron bat through half the ball's diameter in length, and 3 or 4 inches square. One half is fixed within the ball, and the other half remains without; the exterior end is made with a handle-hook. Very useful to set fire to wooden bridges, or any thing made of wood, by blowing air into the rigging of ships, &c. for the wind end being the heaviest, flies foremost, and wherever it touches, fastest, and sets all on fire about it.

Message-Balls. See Shells.

Ballium, a term used in ancient military history. In towns the application of ballium was given to a work fenced with pallisades, and sometimes to a cordon, covering the suburbs; but in castles it was the space immediately within the outer wall.

Balloon, a hollow vessel of silk, varnished over and filled with inflammable air, by which means it ascends in the atmosphere. It has during the war been used by the French in reconnoit'ering, and with great success at Fleurus.

Baloons, Fr. sacks or bales of wool, made use of in cases of great emergency, to form parapets or places of arms. They are likewise adapted for the defence of trenches, to cover the works in saps, and in all instances where promptitude is required.

Ban, or ban, a sort of proclamation made at the head of a body of troops, or in the several quarters or cantonments of an army, by sound of trumpet, or beat of drum; or for observing martial discipline, or for declaring a new office, or punishing a soldier, or the like. At present such kind of proclamations are given out in the written orders of the day.

Ban and Arriere-Ban, a French military phrase signifying the convocation of vassals under the feudal system. Meaning, a French writer, derives the term from the German word ban, which means publication; Niced derives it from another German term which signifies banyet. Borel, from the Greek pan which means all, because the convocation was general. In the reign of Charles VII, the ban and arriere-ban had different significations. Formerly it meant the assembling of the ordinary militia. After the days of Charles VII, it was called the extraordinary militia. The first served more than the latter, and each was distinguished according to the nature of its particular service. The persons belonging to the arriere-ban were at one period accounted and mounted like light-horse; but there were occasions on which they served like the infantry. Once under Francis I in 1545, and again under Louis XIII, who issued an order in 1637, that the Arriere-Ban should serve on foot.

Ban likewise signifies during the ancient monarchy of France, a proclamation made by the sound of drums, trumpets, and tambourines, either at the head of a body of troops, or in quarters. Sometimes to prevent the men from quitting camp, at others to enforce the rigor of military discipline; sometimes for the purpose of receiving a new commanding officer, and at others to degrade a military character.

Bander, Fr. to unite, to intrigue together for the purposes of insurrection.

Banderet, in military history, implies the commander in chief of the troops of the canton of Berne, in Switzerland.

Bandes, Fr. bands, bodies of infantry.

Bandes Franciéses. The French infantry was anciently so called. The term, however, became less general and was confined to the Prêt de banquet, or the Judge or Proost marshal that tried the men belonging to the French guards.

Bandieres, Fr. Une Armée rangée en front de bandieres, signifies an army in battle array. This disposition of the army is opposed to that in which it is cantonned and divided into several bodies.

Bandolier, in ancient military history, a large leather belt worn over the right shoulder, and hanging under the left arm, to carry some kind of warlike weapon.

Bandoliers were likewise little wooden cases covered with leather, of which every musqueteer used to wear before de front de

Ban and Arriere Ban, a French "ban," or proclamation, or body of men, assembled for military purposes. The phrase was also used to denote the commander in chief of the troops of the canton of Berne, in Switzerland.

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Un Chevalier Baneret, or a Knight. Baneret was an incidency to the troop or company which he commanded over that of a baneret who was not a kight or chevalier but the latter obeyed the former, and the baner of the first was cut into fewer vanes than that of the second. According to the English acceptation of the term, are persons who for any particular act of valor were formerly knighted on the field of battle.

BANQUET, See BRIDGES.

BANQUETTE, See FORTIFICATION.

BAR, a long piece of wood or iron. Bars have various denominations in the construction of artillery carriages, as swept and cross bars for tambours: fore, hind and under cross bars, for powder carts; shaft bars for wagons, and dowel bars used in mortar beds.

BAR. See two half bullets joined together by a union bar, forming a kind of double headed shot.

BARD, the reflected points of the head of an arrow. The arrow for horses was so called. See CARRIAGE.

BARBACAN, or BARBICAN, a sort of fortification for the purpose of destroying an enemy at a great distance; it also implies an outer defence, or sort of ancient fortification to a city or castle, used especially as a fence to the city or walls; also an aperture made in the walls of a fortress to fire through upon the enemy. It is sometimes used to denote a fort at the entrance of a bridge, or the outlet of a city, having a double wall with towers.

BARRETS were peasants of Piedmont, who abandoned their dwellings when an enemy has taken possession of them. They formed into bodies and defended the Alps.

BARRET, Battery, in gunnery, is when the breast-work of a battery is only so high, that the guns may fire over it without being obliged to make embrasures: in such cases, it is said the guns fire en barret. See BATTERY.

BARDES d'eau, Fr. a measure used in the making of saltpetre, containing three half-hogsheads of water, which are poured into tubs for the purpose of refining it. Four half-hogsheads are sometimes thrown in.

BARILLER, Fr. an officer employed among the galleys, whose chief duty was to superintend the distribution of bread and water.

BARRACKS, or barracks, are places erected for both officers and men to lodge in; they are built different ways, according to their different situations. When there is sufficient room to make a large square, surrounded with buildings, they are very convenient, because the soldiers are easily contained in their quarters; and the rooms being contiguous, orders are executed with privacy and expedition; and the soldiers have no connection but with those who instruct them in their duty.
The whole barrels are made to contain 500 pounds, and the half barrels 50 pounds of powder; but of late only 50 pounds have been put into the barrels, and 45 into the half barrels; which, by leaving the powder room to be shifted, preserves its better quality. Barrage Barrels, hold from 50 to 60 pounds of powder; at one end is fixed a leather bag with brass nails; they are used in actual service on the batteries, to keep the powder from firing by accident, and to prevent the powder in mortars.

Barrage Barrels contain 38 lbs. Weight of barrel—copper hooped—1 lbs. Weight of barrel—hazel hooped—6 lbs. Length of barrel—hazel hooped—103 inches. Diameter of barrel—hazel hooped—1 foot 1 inch. Barricade. To barricade is to fortify with trees, or branches of trees, cut down for that purpose, the brush ends towards the enemy. Carts, wagons, &c. are sometimes made use of for the same purpose, viz. to keep back both horse and foot for some time. Bastion, in a central sense means any fortification, or strong place on the frontiers of a country. It is likewise a kind of fence composed of stakes, and transoms, or overhanging rafters, erected the Turkish soldiers, which is performed from the parapet, a kind of embrasure is formed at the bottom, through which the soldiers fire, without being exposed to the shot of the enemy. See Barron. Baskets.—Ballast, 1 bushel—weight 1 lbs. Diameter, 1 foot 6 inches—length 1 foot. Bastille, Fr. any place fortified with towers. Bastille, a state prison which stood near the Temple in Paris, and was deservedly destroyed by the inhabitants of that capital on the 14th of July, 1789. Bastinado, a punishment among the Turkish soldiers, which is performed by beating them with a cane or flat of a sword on the soles of their feet. Bastion. See Fortification. Basse-Excitante. See Basse-Dragee. Basseine, Fr. the pan of a musquet. Basson or Bassoon, a wind instrument blown with a reed, performing the base to all martial music, one or two of which are attached to each regimental band. Bat de Malac, a pack-saddle used on service when mules are employed to carry stores. Battage, Fr. the time employed in reducing gun-powder to its proper consistence. The French usually consumed 24 hours in pounding the materials to make good gun-powder; supposing the mortar to contain 10 pounds of composition, it would require the application of the pestle 350 times each hour. The labour required in this process is less in summer than in winter, because the water is softer. Battaille, Fr. a battle. Choix de Bataille, Fr. a war horse, or charger. This expression is used figuratively as a short anchor or last resource. Battailleur, Fr. to struggle hard. Battarde, French 8 pounders were so called. Batardeau, in fortification, is a massive perpendicular pile of masonry, whose summit is equal to the breadth of the ditch, inundation, or any part of a fortification where the water cannot be
kept in without the raising of these sorts of which are described either on the capitals, prolonged of the bastions or half-moons, of upon their faces. In thickness, it is from 15 to 18 feet, that it may be able withstand the violence of the enemy's batteries. Its height depends upon the depth of the ditch, and upon the height of the water that is necessary to be kept up for an inundation; but the top of the building must always be under the cover of the parapet of the covert way, so as not to be exposed to the enemy's view. In the middle of its length is raised a massive cylindrical turret, whose height exceeds the batardeau of 6 feet. A BATON, in ancient military usage, a chiseling under the line. This is a ridiculous ceremony which every person is obliged to go through the first time he crosses the Line on his passage to the East-Indies. Different methods of performing it are observed by different nations. Englishmen frequently buy themselves off. Among the French, the individual who was to be baptized or christened, swore that he would individually assist in forcing every person hereafter, who should be similarly placed, to go through the same ceremony. A barbarous usage.

BAT-aux, 2 are baggage horses belonging to the officers, when on actual duty.

BAT.-Men, 2 were originally servants in war time, to take care of the horses belonging to the train of artillery, bakery, baggage, &c. Men who are excused regimental duty, for the specific purpose of attending to the horses belonging to their officers, are called bat-men.

Knights of the BATH, an English military order of uncertain original. After long decay, this order was revived under George I. by a creation of a considerable number of knights. They wear a red ribbon, and their motto is, Fria jacta est uno, alluding to the three cardinal virtues which every knight ought to possess!

BATON, a staff. See STAFF.

BATON de commandement, a quarter-staff, or a quarter-staff.

BATONS, all sorts of weapons.

BATON a deux bouts, an instrument of particular distinction which was formerly given to generals in the French army. Henry III. before his accession to the throne was made geneissimo of all the armies belonging to his brother Charles the IX. and publicly received the Baton, as a mark of high command.

BATON ferra et non fera, all sorts of weapons.

BATON a deux bouts.

BATON de commandement, a quarter-staff, or a quarter-staff.

BATON, to accomplish one's ends by equivocal means.

Batsmen de commandement, to be morally certain of a thing.

Batsmen are in all, to do any thing by fits and starts, to be undecided in your plans of attack, &c.

BATON, a truncheon, or marshal's staff.

BATTAILON, a warlike or military appearance.

BATTALION, Johnson adopts the word from Battalia, Lat., and calls it the main body of an army, distinguished from its wings. It also implies an army or considerable detachment of troops drawn up in order of battle, or in any other proper form to attack the enemy. See BATTLE.

BATTALION, an undivided body of infantry in regard to number, generally from 500 to 1000 men. In the United States the usage is various, as it is in all other countries. The United States regiment of artillery consists of 20 companies, which form five battalions; the other regiments infantry and artillery, consist of ten companies each, so that each regiment must form two battalions of five companies each. The militia regiments in most of the states consist of 1000 men, composing two battalions of 500 men each, being perhaps the most perfect organization for a battalion.

The French call their military corps demi briga- de, these usually consist of three battalions of 1000 men each; when two of the battalions of a demi brigade are in the field the other is in quarters or recruiting and disciplining the young soldiers, who are thus drafted from their regimental depots.

On the British establishment the companies of grenadiers and light infantry-men having been detached from their several corps and formed into separate battalions; the British guards at present consist of 9 battalions. The different companies are likewise considerably augmented; so that it is impossible to affix any specific standard to their complement of men. The English royal regiment of artillery consists of 4 battalions. Sometimes regiments consist each of a battalion only; but if more numerous, are divided into several battalions, according to their strength; so that every one may come within the numbers mentioned. A battalion in one of the English marching regiments consists of 1000, and sometimes of 1200 men, officers and non-commissioned included. When there are companies of several regiments in aarrison to form a battalion, those of the eldest regiment post themselves on the right, those of the second on the left, and so on until the youngest fall into the centre. The officers take their posts for their companies, from the right and left, according to seniority. Each battalion is divided into divisions, and each division into two sub-divisions, which are again divided into sections. The companies of grenadiers being unequal in all battalions, their post must be regulated by the commanding officer. See REGIMENT.

Triangular Battalions, in ancient mi-
Military history, a body of troops ranged in the form of a triangle, in which the ranks exceed each other by an equal number of men: if the first rank consists of one man only, and the difference between the ranks is only one, then its form is that of an equilateral triangle; and when the difference between the ranks is more than one, it can only then be an isosceles, having two sides equal, or scalene triangle. This method is now laid aside.

Batteries, a casemate of heavy ordnance, from the 1st or 2nd parallel of entrenchment, against any fortress or works. In breach, an end heavy casemate of many pieces directed to one part of the revetment from the third parallel.

BATTERING, in military affairs, implies the firing with heavy artillery on some fortification or strong post possessed by an enemy, in order to subdue or demolish the works.

BATT E R I N G - Pieces, are large pieces of cannon, used in battering a fortified town or post.

It is judged by all nations, that no less than 24 or 18 pounders are proper for that use. Formerly much larger calibres were used, but, as they were so long and heavy, they were very troublesome to transport and manage, were for a long time rejected, till added among the French, who during the present war have brought 36 and 42 pounders into the field.

BATTERING - Train, a train of artillery used for besieging a strong place, inclusive of mortars and howitzers; all heavy 24, 18, and 12 pounders, come under this denomination, as likewise the 13, 10, and 8 inch mortars and howitzers.

BATTERING- Ram. See the article RAM.

BATTERIE de Tambours, a French beat of the drum similar to the general in the British service.

BATTERIE en Rouge, Fr. is used to dismount the enemy's cannon.

Batterie, is per camarades, Fr. the discharge of several pieces of ordnance together, directed at one object or place.

BATTERY, in military affairs, implies any place where cannon or mortars are mounted, either to attack the forces of the enemy, or to batter a fortification; hence batteries have various names, agreeable to the purposes they are designed for.

Gun-Battery, a defence made of earth faced with green sods or fascines, and sometimes made of gabions filled with earth: it consists of a breast-work, parapet, or embasure, of 18 or 20 feet thick at top, and of 22 or 24 at the foundation; of a ditch 12 feet broad at the bottom, and 16 at the top, and 7 feet deep. They must be 75 feet high. The embrasures are 2 feet wide within, and 9 without, sloping a little downward, to depress the metal on occasion. The distance from the centre of one embrasure to that of the other is 12 feet; that is, the guns are placed at 12 feet distance from each other; consequently the mortars (or that part of solid earth between the embrasures) are 15 feet within, and 7 without. The geniassillers (or part of the parapet which covers the carriage of the gun) are generally made 24 feet high from the platform to the opening of the embrasures; though this height ought to be regulated according to the semi-diameter of the wheels of the carriage, or the calibre of the gun. The platforms are a kind of wooden floors, made to prevent the cannon from sinking into the ground, and to render the working of the guns more easy; and are, strictly speaking, a part of the battery. They are composed of 3 sleepers, or Joists of wood, laid lengthways, the whole length of the intended platform; and to keep them firm in their places, stakes must be driven into the ground on each side: these sleepers are then covered with sound thick planks, laid parallel to the parapet; and at the lower end of the platform, next to the parapet, a piece of timber 6 inches square, called a batter, is placed, to prevent the wheels from damaging the parapet. Platforms are generally made 18 feet long, 15 feet broad behind, and 9 before, with a slope of about 9 of 10 inches, to prevent the guns from stooping much, and for bringing them more easily forward when loaded. The dimensions of the platforms, sleepers, planks, batter, and nails, ought to be regulated according to the nature of the pieces that are to be mounted.

The powder magazines to serve the batteries ought to be at a convenient distance from the same, as also from each other; the large one, at least 55 feet in the rear of the battery, and the small ones about 25. Sometimes the large magazines are made either to the right or left of the battery, in order to deceive the enemy; they are generally built 5 feet under ground; the sides and roof must be well secured with boards, covered with earth, clay, or something of a similar substance, to prevent the powder from being fired; they are guarded by sentinels. The balls are piled in readiness beside the magazine, between the embrasures.

The officers of the artillery ought always to construct their own batteries and platforms, and not the engineers, as is practised in the English service; for certainly none can be so good judges of those things as the artillery officers, whose daily practice it is; consequently they are the properest people to direct the situation and to superintend the making of batteries on all occasions.

Mortar-Battery. This kind of battery differs from a gun-battery, only in having no embrasures. It consists of a parapet of 18 or 20 feet thick, 75 feet high in front, and 6 in the rear; of a breast 12 or 3 feet broad, according to the quality of the earth; of a ditch 24 feet broad at the top, and 20 at the bottom. The beds.
must be 9 feet long, 6 feet, 8 from each other, and 5 feet from the parapet; the
are not to be sloping like the gun platforms, but exactly horizontal. The in-
side of such batteries are sometimes sunk 2 or 3 feet into the ground, by which
they are much sooner made than those of cannon. The powder magazines and piles
of shells are placed as is mentioned in the article Gun-Battery.

Ricochet-Battery, so called by its inventor M. Vauban, and first used at the
siege of Aeth in 1697. It is a method of firing with a very small quantity of pow-
der, and a little elevation of the gun, so as just to fire over the parapet, and then
the shot will roll along the opposite rampart, dismantling the cannon, and driv-
ing or destroying the troops. In a siege they are generally placed at about 300
feet before the first parallel, perpendicular to the faces produced, which they are to en-
flade. Ricochet practice is not confined to cannon alone; small mortars and how-
itzers may effectively be used for the same purpose. They are of singular use in ac-
tion to enflade an enemy's ranks; for when they can perceive the shells rolling
and bouncing about with their fuzes burning, expecting them to burst every
moment, the bravest among them will hardly have courage to wait their ap-
proach and face the havoc of their ex-
losion.

Horizontal Batteries are such as have only a parapet and ditch; the plat-
form being only the surface of the hori-
ton made level.

Breach or Sunken Batteries are such as are sunk upon the glacis, with a de-
sign to make an accessible breach in the faces or salient angles of the bastion and
ravin.

Crown Batteries are such as play athwart each other against the same ob-
ject, forming an angle at the point of con-
quest; whence greater destruction fol-
lows, because what one shot shakes, the other beats down.

Oblique Batteries or Batteries on 
Echelon, are those which play on any
work obliquely, making an obtuse angle with the line of range, after striking the
object.

Enfilading Batteries are those that sweep or scour the whole length of a
straight line, or the face of bank of any
work.

Sweeping Batteries. See Enfilading-
Batteries.

Redan Batteries are as flank each other at the salient and reentrant an-
gles of a fortification.

Direct Batteries are those situated opposite to the place intended to be bat-
tered, so that the b-line strike the works
clearly at right angles.

Reverse Batteries are those which
play on the rear of the troops appointed to defend the place.

Shelling Batteries are such whose
shot strike the object at an angle of about
90°, after which the ball, lances from
the object, and recoils to some adjacent parts.

Joint Batteries, Camerade Batteries, & when sev-
el guns fire on the same object at the
same time. When (g) weapons are fired at
once, their effect will be much greater
than when fired separately.

Sunken Batteries are those whose
platforms are sunk beneath the level of
the field; the ground serving for the pa-
rapet; and in it the embrasures are
made. This often happens in mortar,
but seldom in gun-batteries. Batter-
sometimes signifies the guns them-
selves placed in a battery.

Exterior Batteries are batteries
made of those machines, where slots are
scarcely, and the earth very loose or sandy.

For a particular detail of all kinds of ba-
teries, see Tusaic's Artillery, No. 1. c.

Batteries.-Dimensions of Batteries.
1. Gun Batteries.—Gun Batteries
are usually 18 feet per gun. Their prin-
cipal dimensions are as follow:

Ditch.—Breadth — — 12 feet.

Depth — — 8 feet.

Note.—These dimensions give for a ba-
tary of two guns 3456 cubic feet of earth;
and must be varied according to the quan-
tity required for the epaulement.

Epaulement.—Breadth at bottom 23 feet.

— at top 16 feet.

Height within — — without 6 ft. 4 in.

Slope interior 5 ft. 7 in.

Slope exterior 8 ft. 2 in.

Note.—The above breadths at top and
bottom are for the worst soil; good earth
will not require a base of more than 25
feet wide, which will reduce the breadth at top to 15 feet; an epaulement of these
dimensions for two guns will require
about 4200 cubic feet of earth, and de-
ducting 300 cubic feet for each embrasure,
leaves 3600 required for the epaulement.

In confined situations the breadth of the
epaulement may be only 12 feet.

Embrasure.—Distance between 7 feet.

Openings, interior 7 feet.

— exterior 9 feet.

Height of the sole above the plat-
form — — 32 inc.

Note.—Where the epaulement is made
of a reduced breadth, the openings of the
embrasures are made with the usual
breadth within, but the exterior openings
are proportionately less. The embrasures
are sometimes only 12 feet asunder, or even
less when the ground is very confined.

The superior slope of the epaulement will
be very little, where it is not to be de-
fended by small arms. The slope of the
sides the embrasures must depend upon
the height of the object to be fired at.

The Berth is usually made 3 feet wide.
and where the soil is loose, this breadth is increased to 4 feet.

2. Mortar Batteries. — Mortars are commonly placed 75 feet from each other, and about 12 feet from the epaulement.

The dimensions of howitzer batteries are the same as those for guns, except that the interior openings of the embrasures are 2 feet 6 inches, and the soles of the embrasures have a slope inwards of about 10 degrees.

3. Mortar Batteries. — Mortars are commonly placed 75 feet from each other, and about 12 feet from the epaulement.

Note.—Though it has been generally customary to fix mortars at 45°, and to place them at the distance of 12 feet from the epaulement, yet many advantages would often arise from firing them at lower angles, and which may be obtained by removing them to a greater distance from the epaulement, but where they would be in equal security. If the mortars were placed at the undetermined distances from the epaulement, they might be fired at the angles corresponding:

At 13 feet distance for firing at 30 degrees:

- 21
- 30
- 40
- 50

over an epaulement of 8 feet high.

A French author asserts, that all ricochets are for howitzers or guns, might be made after this principle, without the inconvenience of embrasures; and the superior slope of the epaulement being inwards instead of outwards, would greatly facilitate this mode of firing.

If the situation will admit of the battery being sunk, even as low as the soles of the embrasures, a great deal of labour may be saved. In batteries without embrasures, this method may almost always be adopted; and it becomes in some situations absolutely necessary in order to obtain earth for the epaulement; for when a battery is to be formed on the crest of the glacis, or on the edge of the counter-scarp of the ditch, there can be no excavation but in the rear of the battery.

4. Batteries on a coast.—Generally consist of only an epaulement, without much attention being paid to the ditch; they are, however, sometimes made with embrasures, like a common gun battery; but the guns are more generally mounted on traversing platforms, and fire over the epaulement. When this is the case, the guns can seldom be placed nearer than 3 fathoms from each other. The generality of military writers prefer low situations for coast batteries; but M. Gribauvale lays down some rules for the heights of coast batteries, which place them in such security, as to enable them to produce their greatest effect. He says the height of a battery of this kind, above the level of the sea, must depend upon the distance of the principal objects it has to protect or annoy. The shot from a battery to ricochet with effect, should strike the water at an angle of about 4 or 5 degrees at the distance of 200 yards. The greater the distance of the object must be the radius, and the height of the battery the less the angle of ricochet: thus where the distance is 300 yards, the angle of ricochet must be about 2 degrees, at the distance of 200 yards, about 4.5 degrees. At this height, he says, a battery may ricochet vessels in perfect security; for their ricochet being only from a height of 4 or 5 yards, can have no effect against the battery. The ground in front of a battery should be cut in steps, the more effectually to destroy the ricochet of the enemy. In case a ship can approach the battery so as to fire musketry from her tops, a few light pieces placed higher up on the bank, will soon dislodge the men from that position, by a few discharges of case shot. It is also easy to keep vessels at a distance by carcasses, or other fire balls, which are always in dread of.

Durbeyville estimates, that a battery of 4 or 5 guns, well posted, will be a match for a first rate man of war.

To estimate the materials for a battery.

Fascines of 9 feet long are the most convenient for forming a battery, because they are easily carried, and they answer to most parts of the battery without cutting. The embrasures are however better lined with fascines of 12 feet, which will following will be nearly the number required for a fascine battery of two guns or howitzers:

- 90 fascines of 9 feet long
- 30 fascines of 18 feet— for the embrasures.

This number will face the outside as well as the inside of the epaulement, which if the earth be stiff, will not always be necessary; at least not higher than the soles of the embrasures on the outside. This will require five of 9 feet for each merion less than the above.

A mortar battery will not require any long fascines for the lining of the embrasures. The simplest method of ascertaining the number of fascines for a mortar battery, or for any other plain breastwork, is to divide the length of work to be faced in feet, by the length of each fascine in feet, for the number required for one layer, which being multiplied by the number of layers required, will of course give the number of fascines for facing the whole surface. If a battery be so exposed as to require a shoulder to cover it in flank, about 50 fascines of 9 feet each will be required for each shoulder.

Each fascine of 18 feet will require 7 pickets.

Each fascine of 9 feet will require 4 pickets.

12 workmen of the line, and 8 of the artillery, are generally allotted to each gun.

If to the above proportion of materials, &c, for a battery of two guns, there be
A B T

B A T

39

added for each additional gun, 30 fascines of 9 feet, and 10 of 18 feet, with 12 workmen, the quantity may easily be found for a battery of any number of pieces.

The workmen are generally thus disposed; one half the men of the line in the ditch at 3 feet asunder, who throw the earth upon the berm; one fourth upon the berm at 6 feet asunder, to throw the earth upon the epaulement, and the other quarter on the epaulement, to level the earth, and beat it down. The artillerymen carry the fascine work, and level the interior for the platforms. This number of workmen may complete a battery in 36 hours, allowing 376 cubic feet to be dug and thrown up, by each man in the ditch in 24 hours.

Tools for the construction of the battery.

IESCHING — 1 f^t is the number of workmen required; half to be pick axes, and half shovels or spades, according to the soil.

Materiel — 3 per gun.

Earth Rammers — 3 per gun.

Crushed Earth — to every two guns.

Axes or Hatchets — 3 per gun.

This estimate of tools and workmen, does not include what may be required for making up the fascines, or preparing the other material, but supposes them ready prepared. For these articles, see the words Fascines, Gabions, Platform, etc., and for the construction of field magazines for batteries, see the word Magazine.

Note. The following estimate of the quantity of earth which may be removed by a certain number of workmen in a given time, may serve to give some idea of the time required to raise any kind of works.

500 common wheel barrows will contain 2 cubic toises of earth, and may be wheel ed by one man, in summer, to the distance of 20 yards up a ramp, and 36 on a horizontal plain, in one day. In doing which he will pass over, going and returning, about 4 leagues in the first case, and 9 in the last. Most men, however, will not wheel more than 14 toises per day.

Four men will remove the same quantity to four times the distance. In a soil easy to be dug, one man can fill the 500 barrows in a day; but if the ground be hard, the number of fillers must be augmented, so as to keep pace with the wheel barrow man.

Batteries — Planks are those planks or boards used in making platforms.

Batteries — Boxes are square chests of boxes, filled with earth or dung; used in making batteries, where gabions and earth are not to be had. They must not be too large, but of a size that is governable.

Batteries — Nails are wooden pins made of the toughest wood, with which the planks that cover the platforms are nailed. Iron nails might strike fire against the iron work of the wheels, in recoiling, &c. and be dangerous.

Batteries — Matter, whose duty for-
that the fate of the army may not hang on
one or two efforts; to give any particular
part of the army, whose quality is supe-
rior to such part in the enemy's army, a
position that ensures action; and finally,
to have a rear by nature, or if possible,
by art, capable of checking the enemy in
ease of disaster.

The dispositions of battles admit like-
wise of an infinite variety of cases; for
even the difference of ground which hap-
pens at almost every step, gives occasion
to change the disposition or plan; and a
general's experience will teach him to
profit by this, and take the advantage the
ground offers him. It is an instant, a
step, deel which decides this: for it is to
be feared the enemy may deprive you of
these advantages or turn them to his own
point; and for that reason this admits of
no precise rule, the whole depending on
the time and the occasion.

With regard to battles, there are three
things to be considered: what precedes,
what accompanies, and what follows the
action. As to what precedes the action,
you should unite all your forces, examine
the advantage of the ground, the wind,
and the sun, (things not to be neglected)
and chance, if possible, a field of battle
proportioned to the number of your
troops.

You must post the different kinds of
troops advantageously for each; they
must be so disposed as to be able to re-
turn often to the charge; for he who can
charge often with fresh troops, is com-
monly victorious. Your wings must be
covered so as not to be surrounded, and
you must observe, that your troops can
assist each other without any confusion;
the intervals being proportioned to the
battalions and squadrons.

Great care must be taken about the re-
gelation of the artillery, which should be
disposed so as to be able to act in every
place to the greatest advantage; for no
thing is more certain than that, if the ar-
tillery be well commanded, properly dis-
tributed, and manfully served, it will
rely contribute to gaining the battle,
being looked upon as the general instru-
ment of the army, and the most essential
part of military force. The artillery must
be well supplied with ammunition, and
each soldier have a sufficient number of
cartridges. The baggage, provisions, and
Treasure of the army, should, on the day
of battle, be sent to a place of safety.

The battle, where the attacks are, there
is also the principal defence. If an army
attacks, it forms at pleasure; it makes
its points at will; if it defends, it will be
sometimes difficult to penetrate into the
depths of the enemy, but when once
found, succour succeds to the discovery.

Ground and numbers must ever lead in
the arrangement of battles; impression and
trounce will ever be fatal for winning
them.

The most remarkable on record are

B. C.
1255. The Theban war of the Seven He-
rones against Eteocles.
1184. Troy taken after ten years siege.
1068. Jerusalem taken by David long
the Jebusites.
750. War of the Romans against the Sa-
lines.
742. The first Messinian war begins and
continues 15 years, to the taking
of Ithome.
721. Samaria taken.
685. The second Messinian war begins,
continues 14 years to the taking
of Ithome, after 11 years siege.
612. Nineveh destroyed by the Medes.
596. The war of the Persians against the
Scythians, who are expelled by
Cyrus.
587. Jerusalem taken by Nebuchadnez-
zar after a siege of 18 months.
588. War of Cyrus against Croesus.
599. Civil war at Rome, the Tarquinis
expelled, monarchy abolished,
and consuls chosen.
594. The Athenians take and burn Sar-
dia.
490. Battle of Marathon.
480. Thermopylae.
479. Platae: Same day Persia defeats
A
temple of Apollo at Delphi.
470. First sacred war concerning the
Delphi.
465. Third Messinian war begins, con-
tinues ten years.
460. Battle of Egosperamos—the usur-
pation of Dyns.
454. Lyons takes Athens—end of the
Peloponnesian war—30 tyrants
reign.
451. Battle of Cunaxa—the younger
Cyrus killed—glorious re-
trayal of the 30,000, and expul-
sion of the 30 tyrants.
396. Agesilaus carries the war into Per-
asia.
395. The Corinthian war—Athens, Co-
rinth, Thebes, Argos, against
Lacedaemon.
394. Battle of Cunaxa—Lacedaemonians
under Pisander defeated by Co-
non.
393. Battle of Atha—Rome taken by
the Gauls.
387. War against Cyprus—ends in two
years.
371. Leuctra, battle of Epaminondas,
general of Thebes, defeats the
Lacedaemonians.
362. Mantinea battle gained by Epami-
nonas.
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<tr>
<th>B. C.</th>
<th>A. D.</th>
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<tr>
<td>360. Methone, the first victory of Philip of Macedon over the Athenians.</td>
<td>405. Battle of Fesole, Stilicho defeats 200,000 Goths.</td>
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<td>357. Second sacred war, on the temple being attacked by the Phocian.</td>
<td>410. Rome taken and plundered by the Goths.</td>
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<td>335. Thebes destroyed by Alexander the Great, when he left only Pindar the poet’s house standing.</td>
<td>547. Rome re-taken by the Goths.</td>
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<td>333. Arbella.</td>
<td>613. Jerusalem pillaged by the Persians, and 50,000 inhabitants killed.</td>
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<td>282. Tuscan war commenced.</td>
<td>637. Jerusalem taken by the Saracens.</td>
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<td>263. Sardis, Antiochus Soter defeated there by Eumenes.</td>
<td>85. The Danes under Rollo, make their first descent on France.</td>
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<td>244. Sardinian war continues 3 years.</td>
<td>1017. Danes under Canute conquer England.</td>
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<td>181. Second Punic war begins, lasts 17 years.</td>
<td>1060. England invaded by the Normans.</td>
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<td>217. Battle of Thrasymene.</td>
<td>1065. Battle of Hastings, where Harold was slain, and William the Norman became king of England.</td>
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<td>216. Cannae.</td>
<td>1074. The last Danish invasion of England, when they were bribed to depart.</td>
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<td>208. Mantinea.</td>
<td>1095. First Crusade—Jerusalem taken and re-taken.</td>
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<td>201. Zama.</td>
<td>1147. Second Crusade.</td>
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<td>197. Pydna. This battle closed the Macedonian empire.</td>
<td>1187. Jerusalem finally conquered by Saladin.</td>
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<tr>
<td>191. Tuscan war begins, continues 5 years.</td>
<td>1189. Third Crusade—Siege of Acre.</td>
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<td>185. First Punic war lasts 23 years.</td>
<td>1192. Battle of Ascalon, in Palestine.</td>
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<td>167. Social war begins, continues three years, finished by Sylla.</td>
<td>1203. Fourth Crusade.</td>
</tr>
<tr>
<td>158. Mitridatic war begins, continues 26 years.</td>
<td>1204. Constantinople taken by the Latins.</td>
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<tr>
<td>153. Wars of Marius and Sylla, last six years.</td>
<td>1205. Zenghis Khan, till his death in 1227, gains various battles in Asia.</td>
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<td>148. Carthage destroyed by the Romans.</td>
<td>1215. Prussia subdued by the Mercian Knights.</td>
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<td>139. Battle on the Rhine, the Tuuentes defeat 80,000 Romans.</td>
<td>1217. Lincoln, 19 May.</td>
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<td>91. Social war begins, continues three years, finished by Sylla.</td>
<td>1219. Prussia revolted to Poland.</td>
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<td>89. Mithridatic war begins, continues 26 years.</td>
<td>1261. Constantinople recovered by the Greeks.</td>
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<td>88. Wars of Marius and Sylla, last six years.</td>
<td>1064. Battle of Lewes, 14 May.</td>
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<td>73. War of the Slaves under Spartacus, lasts two years, ended by Pompey and Crassus.</td>
<td>1065. Evesham, 4 Aug.</td>
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<td>44. Mutina.</td>
<td>1388. Battle of Poitiers, when King David, king of Scots, was taken prisoner, 17 Oct.</td>
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<td>31. Actium. Death of the Republic; beginning of the Empire.</td>
<td>1396. Battle of Poictiers, when the Fr. king and his son were taken prisoners, 19 Sept.</td>
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<td>Year</td>
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<td>1217</td>
<td>John, king of France, taken prisoner by Edward the Black Prince, brought to England, and ransomed for 3,000,000 crowns, but being unable to pay this sum, he returned to England, and died in prison 1264.</td>
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<td>1370</td>
<td>Timour (vulgarily called Tamerlane) appears a warrior, and conquers Asia, reigns 35 years.</td>
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<td>1393</td>
<td>Battle of Shrewsbury, between Hotspur and earl Douglas, 31 July.</td>
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<td>1403</td>
<td>Battle of Shrewsbury, 12 July.</td>
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1745. Louisburgh taken by the Massachusetts forces, June 17.


1745. Culloden, 16 Apr

1745. Madras taken from the English.

1745. Laffont, 20 July.

1746. Louisburgh given up to the French.

1746. Fort Duquesne, now Pittsburgh, battle of, July 9.

1755. Fort Duquesne, now Pittsburgh, battle of, July 9.

1756. Oswego taken by the English.

1757. Grenada, the island of, taken by Admiral Rodney, Feb.


1760. Dresden taken by the Prussians again.

1765. Chamblee taken from the French by the French.

1765. Cherokee Indians in Carolina, defeated by the Americans under Col. Grant.

1765. Dominica taken by the English.

1766. Battle of Ticonderoga, 20 Feb.

1766. Quebec, 28 April.

1766. Grabensteyn, 4 June.


1766. Battle of Coisson, 10 Nov.

1766. Quebec, 10 Nov.

1766. Warours, 31 July.

1766. Streichen, 2 Aug.


1767. Torgau, 13 Nov.

1767. Another detachment march under Earl Percy, of 16 companies of infantry and a corps of marines, 19 April.

1767. At Lexington, 15 miles from Boston, fell in with the continental about five in the morning. The British fire on them and a skirmish is continued to Concord; the British are forced to retreat to Boston, driven before the Americans like sheep; the British lost 114 killed, 857 wounded, beside 52 missing; the Americans had 62 killed and wounded, about the third recovered of their wounds.

1767. Ticonderoga taken by Ethan Allen, "in the name of Great Jehovah and the continental Congress," containing 120 pieces of iron ordnance, between 6 and 24 pounders, 59 swivels, 2 ten-inch mortars, 1 howitzer, 1 column, 10 tons of leaden ball, 3 carts laden with flints, 30 new field carriages, a quantity of shells, 100 stand of small arms, 20 cases gunpowder, 2 pieces of brass artillery, 3 May.


1767. Bunker's Hill, the British began the attack about noon; the British lost 1346 men killed, 837
1776. Crown Point re-taken by the British.

British attack on the Cedars, Arnold capitulates; Americans treated with barbarity; congress annuls the capitulation in consequence, 26 May.

British tories defeated at Moore’s creek, in North Carolina, by colonel Caswell, and the Tory leader Macleod killed.

Portsmouth, Virginia, destroyed by the British, June 17.

General Sir H. Clinton attacks Sullivan’s island, in concert with Sir P. Parker, and is defeated by general Lee, 15 June.

Montreal retaken by the British, June 15.

Charleston, S. C., attacked by a squadron of ships under Sir Peter Parker, and a body of troops under Generals Clinton and Cornwallis, who were defeated with great slaughter, June 25.

Battle of Long Island, or Flat bush; the American lines attacked by sir William Howe, with 20,000 men, and the American army suffers great loss from an injudicious disposition of the forces; the retreat however was conducted with admirable skill, in thirteen hours 9000 men with artillery, and all their equipage, crossed an arm of the sea a mile wide, in the face of a superior and victorious army. In this action the Americans had 2000 men killed and wounded, and 1000 taken prisoners. 26 Aug.

Fort on Sullivan’s Island, unsuccessfully attacked by the British, June 28.

New-York surrendered to the British forces, Sept. 15.

General Arnold opposes the force sent by Carleton from Canada against Ticonderoga, but is defeated on Lake Champlain; he makes an admirable retreat to Crown point, 11 Oct.

Battle of White Plains; generals Knyphausen, Cornwallis, and Percy, commanded columns; Howe commander in chief of the British, with 15,000 effective; general Washington commander in chief of the American army, consisting of 9000 regulars, and 11,000 militia; the British attack the American entrenchments but are defeated, 28 Oct.

Fort Washington, near King’s Bridge, taken by the British, with a loss of 1000 men! 15 Nov.

Fort Lee, near New-York, taken by the British, Nov. 18.
1776.

Newport, R. Island, taken by the British, Dec. 7.

General Washington surprises the Hessians at Trenton; general William Irvine commanding the advance; general Cadwallader, the second column, and general Washington the principal division, general Greene and general Sullivan formed his suite; the enemy and their artillery were captured, 26 Dec.

Strength of British and American armies in 1776.

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1777.

Princeton, battle of, when the Americans under General Washington, defeated the British with great loss, Jan. 2.

Providence, the island of, taken by Commodore Hopkins, March.

Danbury, town of, in Connecticut, burnt by the British, and large quantities of continental stores destroyed, April 26.

Ticonderoga taken by the British, 5 July.

Action at Hubberton, the British general Frazer attacks the retreating Americans under colonel Francis, and defeats them, 6 July.

Fairfield, in Connecticut, burnt by the British, July 7.

Bennington battle, 16 Aug.

General Stark defeats the Hessian general Baum, and colonel Breyman, on Walloon Creek, 16 Aug.

Fort Stanwix, alias Fort Schuyler, the siege of, raised by Sir John Johnson and Lieut. Col. St. Leger, Aug. 22.

Eutaw Springs, the battle of, in which General Greene defeats the British, Sept. 8.

Battle of Brandywine; the dispositions of the British were masterly in this action; the American army discomfitted and make a precipitate but circuitous retreat, 11 Sept.

Massacre at the Paoli, by sir Charles Grey, 20 Sept.

Philadelphia taken by the British under General Howe, Sept. 26.

Battle of Germantown; 500 English, 500 Americans killed and wounded; the British lost general Agnew and colonel Bird; the Americans, colonel Haslet, of Delaware state, a gallant officer, 4 Oct.

Battle of Stillwater, about 600 men killed on each side; no victory; the action as intrepid as any known for the numbers; Burgoyne retreats and entrenches himself at Saratoga, 17 September.

British entrenchments near Lake George attacked by general Gates, and the British completely beaten; the British general Burgoyne, and the Hessian colonel Breyman killed; Arnold who commanded on the right, was wounded in the tendon Achilles; Gates took 200 prisoners and 9 brass field pieces. Burgoyne makes a precipitate retreat to Saratoga, where he capitulates on the 17th of October, surrendering 5790 men, and 35 pieces of field artillery, &c. 17 Oct.

Esopus, in New-York, was totally destroyed by the British, with great quantities of stores, October 15.

Kingston, in Ulster county, New-York, burnt by the British, October 15.

Action at Red Bank, the Hessian general Duane killed, and the British attack frustrated, and the ship of war Augusta blown up, 23 Oct.

Forts Montgomery and Clinton taken by the British, October.

Martha's Island, pillaged by the British, who carried off 300 oxen, and 2000 sheep.

Attack of Mud Fort, [now Fort Mifflin] by Cornwallis; gallantly defended by Col. Samuel Smith, 15 Nov.

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1778.

Battle of Savannah, 15 Jan.

Monmouth, the British retreat by forced marches to New York, 28 June.

Wyoming, out of 417 Americans stationed there, 350 were inhumanly butchered by a party of Yorks and Indians, commanded by Col. John Butler, July 1.

Dumasia taken by the French under the Marquis de Bouille, when 164 pieces of cannon and 24 brass mortars were found there, Sept. 7.

Attack of Savannah, 28 Dec.


Brass creek, American general Ashe defeated, 3 March.

Portsmouth, in Virginia, invaded again by the British, under Sir George Collier and General Matthews, who burnt vast quantities of property there, May 10.

Stoney Point and Verplanks taken by the British under general Vaughan, 30 May.
1779. Stono ferry, in Carolina, the battle of, June 20. Grenada taken by the French, July 6.

Norwalk, in Connecticut, burnt by the British, July 7.

General Wayne storms and takes Stony Point, 16 July.

Pawls-hook taken by the Americans under General Lee, when 30 of the British were killed, and 160 made prisoners, July 19.

A confederating war earned into Connecticut, by governor Tryon and general Garth, New Haven taken; Fairfield, Norwalk, and Greenfield burnt to the ground, July.

New haven, town of, ravaged by the British, July.

General Lincoln attacks the British under colonel Mattand, 27 June.

Attack of the British lines at Savannah, by Lincoln and D’Estaing, who are repulsed and raise the siege, 9 Oct.

Fort of Omoa, key to the Bay of Honduras, taken by the British from the Spaniards, Oct. 20.

1780. Fort on Sullivan’s Island taken by the British, May 6.

Wachaws, North Carolina, where Colonel Tarleton surprised 300 Americans, of whom he killed by far the greatest number, May.

Charleston, South Carolina, taken by the British, after a siege of several weeks, by Gen. Clinton, 12 May.

Elizabethtown, New Jersey, taken by the British, June 7.

Springfield attacked and burnt by the British from New York; the British severely handled and forced to retire, 23 June.

General Sumpter, after three repulses storms and takes the British post at Rocky Mount, on the Catawba river, but abandons it and attacks the post at Hanging Rock, 30 July.

Battle of Camden, Gates against Cornwallis, both armies set out at midnight, and their advanced guards began the action at 4 o’clock in the morning, 16 Aug.

Augusta, Georgia, attacked by American general Clark, without success, 14 Sept.

Tarleton attacks Sumpter at Black Rock, on the Tyger river, and is defeated; both commanders severely wounded, Oct.

Battle of King’s Mountain, in which a party of American mounted riflemen collected from Kentucky, Georgia, and the Carolinas, attack and kill the Tory leader Ferguson, and take 800 of his party prisoners, 7 Oct.


Richmond, in Virginia, destroyed by the British under General Arnold, Jan. 5.

Hillsborough, in Carolina, the royal standard erected there by Lord Cornwallis, Feb. 20.

Colonel Henry Lee, with his legion, attacks a body of Tories upon the Haw river, within a mile of Tarleton’s encampment, and cuts them to pieces, 25 Feb.

Battle of Guilford court house; general Greene commanded the Americans; general Cornwallis the British; a hard fought battle, the Americans defeated, but the victory was fatal to the victors, 15 March.

Fort Watson, South Carolina, taken by the Americans, April 13.

Camden, battle at, in South Carolina, between General Green and Lord Rawdon, when the Americans retreated, April 25.

Petersburgh, in Virginia, the shipping and stores destroyed at, by Phillips and Arnold, April 26.

Fort Motte, in South Carolina, taken by the Americans, May 12.


Fort Granby, in South Carolina, taken by the Americans, May 25.

Fort Cornwallis, at Augusta, taken by the Americans under Gen. Marion and Col. Lee, June 5.

Augusta, Georgia, taken by Col. Pickens and Lee, 5 June.

Battle of the Cowpens, general Morgan defeats Tarleton, whose whole force is cut to pieces; the British had 600 men killed on the field; the Americans 12 killed and 60 wounded, 7 June.

Battle of Ninety-six, 19 June.


Battle of Hobkirk’s hill, general Greene and Lord Rawdon, 8 Sept.

Eutaw Springs, the British under general Stewart, defeated by general Greene; the standard of the 3d British regiment, or old buff, taken by the Americans; the American colonel Washington wounded and taken by the British, 8 Sept.


Battles of Porto Novo and Moostaphism, E. Indies.

1782. Floating batteries, the destroyed before Gibraltar, Sept. 13.
A.D. 1792. Surrender of Yorktown, by Cornwallis, with his whole army, consisting of 7000 men, to the united armies of America and France, under the command of General Washington, which closed the battles of the American revolution, 17 Oct.

Mohawk river, battle at, when Colonel Willet defeated the British, Oct. 24.


The Indians defeat General St. Clair with great loss, Nov. 4.

Bangalore, battle of, Cornwallis captures the place.

Ostend taken possession of by the French under Dumourier, Dec.

Nice taken by the French under General Anselin, Sept. 29.

Savoy, part of the King of Sardina's dominions, taken by the French under General Montesquieu, Oct.

Battle of Jemappe, Dumourier, French 40,000, Clairfayt, Austrians 28,000, Nov. 4.

Frankfort treacherously given up to the Austrians, when 1300 Frenchmen were massacred by the Hessians, and several whose lives were spared had their hands cut off, Dec. 2.

Newingen, the battle of, between the combined armies and General Dumourier, when the French were defeated with great loss, March 20.

Battle of Trelmont, Clairfayt defeats Dumourier, March 18.

Battle of St. Amand, in which Dampierre the French commander was killed by a cannon ball, in an engagement near the woods of Rheimes and Vicoigne, when the allies were defeated with great loss; General Clairfayt and Duke of York commanded the coalesced army, May 8.

Famars, battle of, between the French and combined powers, when the former were defeated, by Cobourg and Duke of York, May 23.

Carlsberg, the battle of, when the French under Custine, defeated the Prussians, May 18.

Arlon, French and Austrians, latter defeated, 9 June.

Valenciennes, taken by the combined powers, and soon after retaken, June.

Marseilles, which had revolted against the convention, subdued Aug. 24.

Verdun, the French garrison, taken by the Prussians, and retaken soon after, Sept. 2.

A.D. 1793. Battle of Weissenberg, (or attack and repulse of,) Aug. 27.


Dunseeks by the combined army under the Duke of York, August 25, who were repulsed with great slaughter, Sept. 7, following.

Battle of Dunkirk, Duke of York and Marshal Freytag defeated by the French under Houchard and Jourdan, 32 24-pounders, and 68 other pieces of cannon taken by the French, Sept. 8.

Battle of Fornace on the Rhine, Duke of Brunswick victorious over the French.

Battle of Saorgia, King of Sardina beaten, Sept. 20.

Spaniards defeated at Perpignan under Ricardos.

Boufflers, from 8 in the morning to 7 at night, Austrians retreat under cover of night.

Battle of Maulbege, Cobourg Austrian, Jourdan French, lasted two days, from day light till night.

Jeremie fort, St. Domingo, taken by the British, Oct.

Limbach, battle of, when the French were victorious, Sept. 14.

Maubeuge, the battle of, when the Austrians and the French, when the former were defeated with great loss, Oct. 15 & 16.

Toulon surrender to the English Admiral Lord Hood, who took possession of the town and shipping in the name of Louis XVII., when the tree of liberty, which had been erected there, was converted into a gibbet for the republicans. On December 17, following, the republicans attacked the town in a most vigorous manner; when the combined forces, finding that all future resistance was useless, after having set fire to the shipping, arsenals, &c., made a precipitate retreat.

Trelmont, battle of, when after a contest of several days, the French under Dumourier were defeated.

Battle of Deuxponts, Hoche and Wurmser, Hoche victorious at 4 o'clock, afternoon, loss of Austrians 6000, French 2000, at noon.

Hagencourt, Hoche gains a victory, 5–9 Dec.

Action five days at Weissenberg, and Austrians driven from Elberlassen, 31 Dec.
1794. Noirmoutier, the island of, taken from the insurgents of La Vendee, by the arms of the French Republic, Jan. 3.

BATTLE BETWEEN RUSSIANS AND POLES, former defeated, 4 Jan.

Fort Vauban taken by the French, Jan. 7.

Battle of Villers en Coudée, 24 April.

Battle of Cateau.

Moncoron, battle of, when the allied forces under Clairfayt were totally defeated by the French under Pichegru, April 6.

Courtray, the same, 11 May.

Tourai, battle of, between the French and English, when the former were defeated, May 10; again between the French and combined powers, when the latter were defeated with great loss, May 17 & 18 following.

Lannoy, Pichegru defeats Duke of York, May 18, takes 60 pieces; here the duke won the race, but lost the battle.

Turcon, Pichegru and Clairfayt, a victory on neither side, though a desperate battle, 22 May.

Collioure, the Spanish garrison of, also Fort Vendre, Fort St. Elme, &c. with 9000 prisoners, taken by the French under Gen. Dugommier, May.

Battle of Espierres, 25 May.

Hoogden, Macaoaia defeats Clairfayt, 13 June.

Charlevoix, a garrison consisting of 8000 Austrians, surrendered to the French under Gen. Jourdan, June 25.

Battle of Fleurus, Jourdan victorious over Cobourg, began at 3 o'clock in the morning; the French three times fell back from the powerful artillery of the Austrians, and returned fresh to the fight. The French word of battle was, no retreat to day, for 9 hours victory indecisive; when Jourdan collecting his corps de reserve, Lefebvre leading the cavalry, the Austrians were put to the rout. In this action reconnoitring with balloons was practised with the greatest effect, the combined forces lost about: 8000 men killed and 15000 prisoners, June 26. In consequence of this victory, Le Chateauf de Namur soon after submitted to the French republic.

Battle of Bellegarde, in the Eastern Pyrenees, Spaniards defeated, French general Mirabel killed, 23 July.

Fonterabia, the key of Spain, was taken by the French, July.

A. D. 1794. Chandernagore taken from the French by the British, July.


Juliers, the fortress of, submitted to the French, when all the provinces west of the Rhine fell into their hands.

Boxtel, Moreau pursues Duke of York, 14, 15, 16, Sept.

Bellegarde taken after an action, the last place possessed by the coalesced powers in France, 18 Sept.

Battle of Warsaw, between the Russians and Poles, in which Kosciusko was taken prisoner, covered with wounds, 19 Oct.

Battle of Rezene, in Poland, in which Suwarrow annihilated the Poles, took all their artillery, 19 Oct.

Berterzel, Moreau, beats the Duke of York; general Fox wins a race here, 19 Oct.

Praga, the suburb, near Warsaw in Poland, taken by the Russian General Suwarrow, who gave the barbarous orders to his army to give quarters to no one, in consequence of which, upwards of 50,000 Poles, men, women and children, were massacred, Nov. 4.

Nimeguen, port of, evacuated by the Brithish, Nov. 7.

Warsaw, the capital of Poland, taken by the Russians under Suwarrow, Nov. 9.

Maastricht, the garrison of, consisting of 8000 Austrians, surrendered to the French, Nov. 9.

Battle of the Black Mountain, Eastern Pyrenees, in which Dugommier, commander of the French, gained a complete victory, but fell in the battle; took 50 pieces of cannon and the Spanish founderies of Egui and Orbaycette, 17 Nov.

Another battle, French took tents for 50,000 men, at Figueras, 20 Nov.

Graves, the fortress of, taken by the French, D. C. 30.

A. D. 1795. Battle of Boncel in Holland, French under Moreau, took 120 pieces of cannon, 7 Jan.

Crecy, bloody battle fought between the French and English in that island, in which the latter were defeated, March 3.

Battle of Quiberon, Pussaye defeated by Hoche, 3 Aug.

1796. Battle of Kreutznach, in which the French general Moreau, defeats the Austrian generals Kray and Wurmser, 4 Jan.

Bonaparte's first campaign in Italy.
1796. Montenotte, Bonaparte with 60,000 men, defeats the Austrians 40 pieces of cannon, 11 April.

Battle of Fossobio, 7 May.

Milesin, 11 May.

Dezio, the same, 14 April.

Battle of Monutove, in which the French general Stengel was killed, 22 April.

Battle of Lod, over Boleau, 11 May.

Passage of the Mincio and battle of Borghetta, 4 June.

Battle of Renchen, Moreau victorious over the Austrians, 28 June.

Battle of Eingen, the corps of Conde cut to pieces, 1 July.

Battle of Neuckirchen, Lefebvre defeats the Austrians, 6 July.

Battle of Castiglione lasts: five days, Wurmser defects, 70 field pieces, 15,000 prisoners, and killed 2,000, 2 August.

Battle of Peschiera, 6 August.

Rovereto, 6 Sept.

Bassano, 9 Sept.

Castelfranco, 14 Sept.

Legnano, 11 Oct.

Caldiero, 12 Oct.

Arcole, 15 Oct.

Altenkirchen, Jourdan defeats Wurmser, 1 June.

Moreau attacks Wurmser and defeats him at Frankenthal, 15 June.

Moreau defeats the Austrians at Nordlingen, 19 August.

Jourdan defeats and retreats from Frankfurt towards the Rhine, 20 August to 3 September.

Desaix defeats the Austrians at Marienburg and overthrows Moreau's retreat, 7 September.


Prosera beaten and made prisoner at La Faretta, 15 Jan.

Passage of Tagliamento and defeat of the Archduke near Gradisca; who narrowly escapes, 16 Feb.

Battle of Tagliamento, Austrians under arch duke Charles, defeated by Massena, 16 March.

Battle of Nieuwpoort, Hoche defeats the Austrians under Kray, and takes 4,000 prisoners, 18 March.

Battle of Tarvis in the Nere Alps, Massena defeats the Austrians, 20 March.

Battle of Lavis, Joubert defeats the Austrians, 23 March.

Battle of Piaf, Austrians defeated by general Gueux, 23 March.

Battle of Tarrag, fought above the clouds, Austrians defeated by Massena, the imperial cuirassiers annihilated, 25 March.

1797. Battle of the defiles of Neumark, Massena defeats the Austrians, 2 April.

1798. General Berthier enters and occupies the city of Rome, in consequence of the assassination of general Duphot, and an attempt to assassinate Joseph Bonaparte, the French ambassador, 16 February.

General Brunel takes possession of Fribourg in Switzerland, after a severe action, 3 March.

A revolt in Ireland, several actions between the Irish and British troops with various success, during this month, April.

Action at Killalla, 19 April.

Action at Hacketstown, between the Irish insurgents and British troops, same day actions in Clare, Lucan, Lusk, and Kilcullen, 25 May.

Action at Tarraigh, very desperate and bloody; same day the insurgents in Wexford, capture a British detachment, 27 May.

Battle at Enniskerry, Ireland; same day a desperate action near Limerick, 28 May.

Battle of Knock, the Irish insurgents defeat the British regulars, 29 May.

Battle of Vinegar Hill, the British, under general Fawcett, defeated, 30 May.

Action at Newtownbarry, the British compelled to retreat before the insurgents; the pikeman the chief weapon, the Irish, 1 June.

The insurgents from Wexford, defeat the British under colonel Walpole, the colonel is killed, and the cannon are taken by the insurgents, 4 June.

Desperate action at New Ross, county Wexford; the British army, under general Johnson, severely cut up, their cannon taken, and lord Mountray killed, several actions during this month in which the British are defeated, 5 June.

Battle of Antrim, lord O'Neil killed, with a pike, 7 June.

Battle of Ballinamuck, the British army severely handled by the insurgent general Munroe, who was wounded and taken prisoner, and afterwards executed; the British in vengeance burned the town of Saintfield, 12 June.

Insurgents camp at Vinegar hill, stormed by general Lake, and carried with great slaughter, 21 June.

Sir Charles, Artillery, defeated by a body of insurgents, under the command of Murphy, an Irish priest, 23 June.
A. D. 1798. Sir Charles Asgill, attacks the Irish insurgents on Kilconnel Hill, and defeats them, but with the loss of 1000 men; the insurgents lose as many with all their cannon, and their leader Murphy falls in battle, 6 June.

Several actions in this month between the revolted Irish and British troops, July.

A French army under general Humbert, lands in Ireland, and takes possession of Killala, 22 Aug.

Humbert attacks Lake at Castlebar, and defeats him, taking six pieces of British artillery, 27 Aug.

Battle of Underwalden in Switzerland, between the adherents of the aristocracy of Berne and the French, under Scharfenburg; the town of Stantz was burnt to the ground, 9 Sept.

The Irish insurgents defeat a British force at Rathfarnham, 18 Oct.

Desperate action at Kilcock, the British troops suffer from the pike, 28 Oct.

General Mack commences hostilities in Italy against the French, by an attack on four different points of the French lines, in the Roman territory, 22 Nov.

Battle of Porto Fermo, on the Adriatic, the French defeat the Neapolitans and take their cannon and baggage, 28 Nov.

Macdonald defeats the Neapolitans at Civita Castellana, 3 Dec.

Again defeats Mack at Calvi, 8 Dec.

Championnet defeats Mack in a general action, 11 Dec.

Macdonald defeats the Neapolitans under Dumas. The fruit of these battles, was 12,000 prisoners, 99 pieces of cannon, 21 standards, 3000 horses, and all the baggage of the Neapolitan armies.

Egypt conquered by the French.


Jaffa taken by storm, by generals Lannes and Jonnart, 5 March.

Battle of Sadowa, near Perpignan, first action on the invasion of Mysore, 5 March.

Battle of Lencencagis, Massena forces that place with dreadful slaughter, and thus gains the key of Tyrol and the Grisons, 7 March.

Battle of Louhi, on the river Jordan, near Nazareth; Bonaparte, Murat, and Joubert commanded, 30 March.

Kheber defeats the Syrians at Ledjaria, 10 March.


General Desolles scales the Julian Alps, takes the intrenched defiles of Taulfers in the rear, and gains a complete victory over Laur- dohn, 17 March.

Ostrach, Jourdain with 40,000 men, is attacked by the archduke with 50,000, and is forced to retreat, 21 March.

Samahouh, a new and elegant disposition, infantry squares formed the two flanks, cavalry in a square the centre; the troops to oppose were Mamelukes and horsemen. Davoust commanded the French horse, Friant and Belliard the two squares of infantry, 22 March. Several battles at Brimba, Bardis, Girge, gained by Desaix in this month.

Stockach, Jourdain attacks Archduke, but is defeated and forced to retreat; Jourdain's force under 40,000 men, the Archduke's above 80,000; the battle was principally fought by infantry and was terrible; 10,000 men lay on the field of battle, 25 March.

Scherer and Moreau attack the Austrians between the Garda and Adige, gain a hard earned victory, fought from day break to 11 at night, 26 March.

Scherer and Moreau attack general Kray before Verona, and are defeated, 30 March.

Battle of Bonna, the French are defeated, 5 April.

Battle of Malamelly, 6 Indies, 5 April.

Lacourbe defeats Bellegarde in the Engadine, 1 May.

Surahapatam taken by storm, Tipu put to death, partition of Mysore followed, 4 May.

Attack of St. Jean d'Acere, and Bonaparte forced to raise the siege, 7 May.

Moreau defeats the Russians on the Po, 12 May.

Lecourbe drives the Austrians on the Rhine, 22 May.

Battle of Zonde, the Austrian Generals Hofer and Walrast, Kerken and Hillier wounded; and Judenot and Humbert of the French, 5 June.

Battle of Medena, Macdonald defeats Holzennollern, 10 June.

Battle of the Trebia, at St. Julian, Moreau and Suwarrow; the French defeated, 18 June.

Battle of Chabrisa, Bonaparte against the Mamelukes; a new disposition, echelons of squares with artillery and baggage of each square in its centre—and giving a front and flank fire.

Turks land and take Aboukir after...
1799. a battle very desperate, the Turks defeated, Bonaparte embarks for France, 15 July.

Battle of the Pyramids, the same order of battle—very decisive victory over Mural Bey, 21 July.

Second battle of Zurich, most terrible and brilliant, Massena attacks the Archduke; indecisive, 14 Aug.

Suwarow attacks Joubert at Novi, who is killed, Moreau takes the command but is forced to retreat, a bloody battle, 13 Aug. held, 27 Aug.


Battle of Egmont, duke of York again defeated and capitulates, 3 Oct.

Battle of Fossan, 14 Sept.

Gaeta, Aquila taken by storm, Macks defeated, and the Neapolitans capitulate to Cham, 1 Oct.

Battle of Berga, 1 Oct.


1801. Alexandria, Egypt, Abercrombie Edl, French defeated by Hutchinson, 21 March.

Battle of Wurtlingen in Bavaria, the first of the coalition of Austria and Russia; Austrians defeated and all their cannon taken, Oct. 8.

Battle of Guntzburz, marshal Ney defeats the Austrians, 9 Oct.

Battle in the Adige, Massena forces a passage at Verona, and defeats the archduke Charles, Oct. 18.

Surrender of Ulm by Mack, October 20.

Murat defeats prince Ferdinand at Nuremburg, Oct. 21.

Battle of Caldern, Massena attacks the whole Austrian line, defeats them; captures one of their divisions; the arch duke escapes at night, Oct. 20.

Battle of Amstetten, the Russians defeated by Murat, 4 Nov.

Battle of Mysontzel, Davoust defeats the Austrian general Meckstadt, 8 Nov.

Mortier defeats the Russians under Kutusoff at Dernierzen, Nov 11.

Murat and Lasnes defeats the Russians under Kutusoff at Holabrunn, 15 Nov.

Soult again at Guntersdorff, 16 Nov.

Battle of Austrlitz or of the three emperors, 500 pieces of cannon and 150,000 men were engaged in this battle, which was one of the most profound in the history of tactics, and the most brilliant in the annals of victory; 150 pieces of artillery were taken by the victors; this battle deprived the house of Austria of the title of Emperors of Germany, 5 Dec.


Prussia subdued by Bonaparte, 1807.

Dantzick taken, May 20.

Battle of Spauenau, June 5.

Deepen, battle of, Marshall Ney makes a fictitious retreat, and cuts a body of Russians to pieces. June 6.

Eyiau, battle of, very bloody and desperate, Russians lost 30,000 men killed. June 6–12.

Friedland, battle of, this action decided the fate of the Coalition, and produced the peace of Tilsit on the 7th July succeeding,—This battle stands in the same rank with Jena, Marengo, Jena and Austerlitz.

BATTLE—Applies to the method and order of arranging the troops in order of line of battle; the form of drawing up the army for a ce-
engagement. This method generally consists of three lines, viz. the front line, the rear line, and the reserve.

The second line should be about 300 paces behind the first, and the reserve at about 5 or 600 paces behind the second. The artillery is likewise divided along the front of the first line. The front line should be stronger than the rear line, that its shock may be more violent, and that, by having a greater front, it may more easily close on the enemy's flanks. If the first line has the advantage, it should continue to act, and attack the enemy's second line, terrified by the defeat of their first. The artillery must always accompany the line of battle in the order it was to execute them, and if the ground permit it; and the rest of the army should follow the motions of the first line, when it continues to march on after its first success.

**BATTLE.** An offensive weapon, formerly much used by the Britons, Danes, and other northern infantries. It was a kind of halbert, and did great execution when wielded by a single arm.

**BATTLEMENTS.** In military affairs, are the tops of old castles or fortified walls, or other buildings, in the form of embrasures, for the greater efficiency of firing or looking through.

**BATTLEMENTS.** In military affairs, signifies a wheel-barrow.

**BAYARD.** A provincial term used in ancient Languedoc and Roussillon to signify a wheel-barrow.

**BAVINS.** In military affairs, implies small carrs, made of brush-wood, of a considerable length, no part of the brush being taken off. See Fascines.

**Bayonet.** A kind of triangular dagger, made with a hollow handle, and a shoulder, to fix on the muzzle of a firelock or musket, so that neither the charging nor firing is prevented by its being fixed on the piece. It is of infinite service against horse. At first the bayonet was inserted into the muzzle of the barrel, consequently could not be used during the fire. It is said by some to have been invented by the people of Malacca, and first made use of on quitting the pikes. According to others, it was first used by the fusiliers in France, and invented or used at Bayonne. At present it is given to all infantry.

**Beacon.** A signal for securing and guarding against dangers.

**Beauvoir.** A piece of ordnance is said to beauvoir, or come to beauvoir, or brought to bear when pointed directly against the object; that is, pointed to hit the object.

**Beaver,** the part of the ancient armor particularly of such as were jagged.

**Beat,** in a military sense, signifies to gain the day, to win the battle, &c.

**Beat a parry.** See Chamade.

**Beaver.** The part of the ancient helmet which covered the face, and which was movable so as to expose the face without removing the beaver from the helmet.
BEEF-Eaters, the yeomen of the guard to the king of Great Britain are so called, being kept up rather for pageantry, than for any military service. Their arms are a saber-and-lance; and the dress of the 19th century.

BEETLES, in a military sense, are large wooden hammers for driving down pallsades, and for other uses, &c.

BEETLESTOCK, the stock or handle of a beetle.

BELT, a leather strap in which a sword hangs.

Shoulder-Belt, a leather belt, which goes over the shoulders, and to which the pouch is fixed. It is made of stout leather. See Pouch.

Shoulder-Belts for the light cavalry and dragoons, 2½ inches broad. Regiment that have buff waistcoats, usually have buff-coloured accoutrements, and those which have white waistcoats, wear white.

Waist-Belts, are 1½ inches; to have buckles or clasps.

BELTS are known among the ancient and middle-age writers by divers names, as zona, cingulum, remiculum, rings, and baldric. The belt was an essential piece of the ancient armor, insomuch that we sometimes find it used to denote the whole armor. In latter ages the belt was given to a person when he was raised to knighthood; whence it has also been used as a badge or mark of the knighthly order.

BELTS among the aborigines of America, are the symbols of peace or war; they are made in a rude fanciful taste, of colored beads, and are usually presented at all conferences or talks.

BENDINGS, in military and sea matters, are ropes, wood, &c. bent for several purposes. M. Aumontes gives several experiments concerning the bending of ropes. The friction of a rope bent, or wound round an immovable cylinder, is sufficient, with a very small power, to sustain very great weights. Divers methods have been contrived for bending timber, in order to supply crooked planks and pieces for building ships; such as by sand, boiling water, steam of boiling water, and by fire. See M. Du Hamel, in his book called Du Transport, de la Conservation, & de la Force des Bois. M. Delorme ingeniously enough proposed to have the young trees bent, while growing in the forest. The method of bending planks by sand-heat, now used in the British navy yards, was invented by Captain Cumberland.

A method has been lately invented and practised for bending pieces of timber, so as to make the wheels of carriages without joints. The bending of boards, and
BIANCO, Fr. [from the German weiss, white.] A night guard, or detachment of the whole army, which, during a siege, or in the presence of an enemy, marches out every night in squadrons or battalions to line the circumvallations, or to take post in front of the camp, for the purpose of securing their quarters, preventing surprises, and of obstructing supplies. When an army does not encamp, but lies under arms all night, it is said to bianco. Thus before the battle of Austerlitz, Bonaparte was all night in bianco, or with the advanced guard.

BIT, the bridle of a horse, which acts by the distance of an curb. See CURB and BRIDLE.

BLACK-HOLE, a place of confinement for soldiers, in the English discipline, who may be confined therein by the commanding officer, but not by any inferior officer. In this place they are gen rally restricted to bread and water.

BLANKETS, are made of coarse paper steeped in a solution of saltpetre, and when dry are again dipped in a composition of tallow, resin, and sulphur. They are used only in fire-ships.

BLAST, and BLASTING. See MINE and MINING.

BLINDS, in military affairs, are wooden frames, composed of 4 pieces, either flat or round, two of which are 6 feet long, and the others 3 or 4 feet, which serve as spars to fasten the two first together; the longest are pointed at both ends, and the two others are fastened towards the extremities of the former, at about 10 or 12 inches from their points, the whole forming a rectangular parallelogram, the long sides of which project beyond the other about 10 or 12 inches. Their use is to fix them either upright, or in a vertical position, against the sides of the trenches or saps, to sustain the earth. Their points at the bottom serve to fix them in the earth, and those at top, to hold the fascines that are placed upon them; so that the sa. trench is formed into a kind of covered gallery, to secure the troops from stones and grenades.

The term Blind is also used to express a kind of hurdle, made of the branches of trees, behind which the soldiers, miners, or labourers, may carry on their work without being seen. See Hurdle.

Blind are sometimes only canvas stretched to obstruct the sight of the enemy. Sometimes they are planks set up, for which see MANTLE. Sometimes they are made of a kind of coarse basket-work; see GABIONS. Sometimes of bars, or racks filled with earth. In short, they signify any thing that covers the labourers from the enemy.

BLIND. See ORLION and FORTIFICATION.

BLOCKADE, in military affairs, BLOCKADING, supplies the surrounding a place with different bodies of
attacks. This name is sometimes open a.; before.

The defence of the blockade is to oblige those who are shut up in the town, to consume all their provisions, and by that means to compel them to surrender for want of subsistence.

Hence it appears that a blockade must last a long time, when a place is well provided with necessaries; for which reason this method of reducing a town is seldom taken, but when there is reason to believe the magazines are unprovided, or sometimes when the nature or situation of the place permits not the approaches to be made, which are necessary to attack it in the usual way.

Maritime towns, which have a port, are in much the same case as other towns, when their port can be blocked up, and the besiegers are masters of the sea, and can prevent succours from being conveyed that way into the place.

To blockade, or to block up a place, is to shut up all the avenues, so that it cannot receive any relief either of men or provisions, &c.

To raise a blockade, is to march from before a place, and leave it free and open as before.

To turn a siege into a blockade, is to desist from a regular method of besieging, and to surround the place with those troops who had formed the siege.

To form a blockade, is to surround the place with troops, and hinder any thing from going in or coming out.

A new species of blockade has been discovered during the French Revolution, a blockade by proclamation. BLOCKUS. See Blockade.

BLOCK Battery, in gunnery, a wooden battery for two or more small pieces, mounted on wheels, and moveable from place to place; very ready to fire en batterie, in the galleries and casemates, &c., where room is wanted.

BLOCK-House, in the military art, a kind of wooden fort or fortification, sometimes mounted on rollers, or on a flat-bottomed vessel, serving either on the lakes or rivers, or in counter-scarps and counter-approaches. This name is sometimes given to a brick or stone building on a bridge, or the brink of a river, serving not only for its defence, but for the command of the river, both above and below.

BLUNDERBUSS, a well known firearm, consisting of a wide, short, but very large bore, calaboul, of holding a number of musquet or pistol balls, very fit for doing great execution in a crowd, making good a narrow passage, defending the door of a house, stair-cases, &c., or repelling an attempt to board a ship.

BOARD of Ordinance. See Ordinance.

BOARD, also implies an office under the government, where the affairs of some departments are transacted; of which there are several sorts in England.

BOAT. See Advice-Boat, Pontoon-Boat, &c.

BODY, in the art of war, is a number of horses, horsecor foot, united and marching under one commander.

Main Body of an army, sometimes means the troops encamped in the center between the two wings, and generally consists of infantry. The main body on a march, signifies the whole of the army, exclusive of the van and rear-guard.

BODY of a Reserve. See Reserve.

BODY of a place, is, generally speaking, the buildings in a fortified town; yet the inclosure round them is generally understood by it.

BOIS de rompante, Fr. every species of timber which is used to new mount cannon, or refit ammunition wagons, &c.

Bois de charge, Fr. the fuel which is distributed among French troops.

BOLT, an iron pin used for strengthening a piece of timber, or for fastening two or more articles together. Bolts in gunnery, being of several sorts, admit of various denominations, which arise from the specific application of them, as

1. Eye
2. Pin
3. Tranxam
4. Bed
5. Bossing
6. Bracket
7. Stand-bed
8. Carriage
9. Axle tree
10. Boltter

See SHELL.

BOMB, Vessels, small vessels, Ketches, made very strong with large beams, particularly calculated for throwing shells into a town, castle, or fortification, from 12 and 10-inch mortars; two of which are placed on board of each ship. They are said to have been invented by M. Keyneau, a Frenchman, and to have been first put in action at the bombardment of Algiers in 1681; till then it had been judged impracticable to bombard a place from the sea.

BOMK Ketch. The old bomb-ketches carried one 12-inch and 1 10-inch mortar, with 8 six-pounders, besides swivels, for their own immediate defence. The modern bomb-vessels carry 2 10-inch mortars 42-pounders, and 6 18-pounders carronades; and the mortars may be fired at as low an angle as 20 degrees; though these mortars are not intended to be used at sea but on very particular occasions; their principal intention, at these low angles, being to cover the landing of troops, and protect coasts and harbours. A bomb-ketch is generally from 60 to 75 feet long from stem to stern, and draws 8 or 9 feet.

The tender is generally a brig on board of which the party of artillery remain, till their services are required on board the bomb-vessel.
Instructions for their Management and Security in Action.

1. A Dutch pump, filled with water, must be placed in each round-top, one upon the forecastle, one on the main-deck, and one on the quarter-deck; and furnished with leather buckets, for a fresh supply of water.
2. The booms must be wetted by the pumps before the tarpaulins and mortars are taken off; and a wooden screen, 5 feet square, is to be hung under the booms, over each mortar, to receive the fire from the vents.
3. The embrasures being fixed and properly secured, the port must be let down low enough to be covered by the sole of the embrasure. Previous to its being let down, a spar must be lashed across it, to which the tackles for raising it again must be fixed; this spar serves to project the tackles clear of the explosion.
4. The mortars must not be fired through the embrasures at a lower angle than 20 degrees, nor with a greater charge than 5 lbs. of powder.
5. Previous to firing, the doors of the bulkhead, under the quarter-deck, must be shut, to prevent the cabin being injured by the explosion.
6. The bed must be wedged in the circular curb, as soon as the mortar is pointed, to prevent re-action; the first wedge being driven tight, before the rear ones are fixed, in order to give the full bearing on the bed, as well as the rear of the bed. The holes for dog-bolts must be corked up, to prevent the sparks falling into them.
7. When any shells are to be used on board the bomb, they must be fixed on board the tender, and brought from thence in boxes in her long-boat, and kept along side the bomb-ship till wanted, carefully covered up.

In the old constructed bomb-vessels, it was necessary to hoist out the booms and raft them along side previous to firing; but in these new ones, with embrasures, only the boats need be hoisted out; after which the mortars may be prepared for action in 10 minutes.

Proportion of Ordnance and Ammunition for a Bomb Ship, carrying two 10-inch Mortars, to fire at low angles, and at 45 degrees, four 68 Prs. and six 18 Prs. Carronades.

<table>
<thead>
<tr>
<th>KINDS</th>
<th>Bomb Ship</th>
<th>Tender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortars, sea service, with fad. 1 inch</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Quire fords, 2 for 45°</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Capsus, with keys</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Handspikes, large</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Proportion of Ordnance, &c., for a Bomb Vessel (Continued.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Bomb Ship</th>
<th>Tender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spencers, with ram-rams</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Handscrews, small</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Handcrew levers—6 feet</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Handspikes, common</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Linslocks, with cocks</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Powder horns, new pt.</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Match</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marline, skins</td>
<td>12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Budge bar, cap hooped</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lanthorns, Muscovy</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Dark</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Carronades, 68 Prs.</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>havingsliding carriages, elevating screws, spungs, rammers &amp;c. complete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gun tackles, complete for traversing mortars, 12 Prs.</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Wads, 68 Prs.</td>
<td>270</td>
<td>270</td>
<td></td>
</tr>
<tr>
<td>18 Prs.</td>
<td>180</td>
<td>180</td>
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</tr>
<tr>
<td>Musquets</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pistols, pairs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swords</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Pole axes</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Pick</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Musquetons</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flint, musquet</td>
<td>900</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td>Pistol</td>
<td>150</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Ball cartridges, musq.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pistol</td>
<td>2000</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>Shot, musq. cwt, &amp;q. lb.</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Round car. fixed, 10 in.</td>
<td>48</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Empty shells, 10 inch</td>
<td>48</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Iron shot, 1 lb.</td>
<td>1000</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Fixed shells, 10 inch</td>
<td>48</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Cac shot, 68 Prs. ca.</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Emp. sh. 6 in. for ca.</td>
<td>52</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Shot, round, 68 Prs.</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Carcasses do. 68 Prs.</td>
<td>106</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>Shot, round, 18 Prs.</td>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Case shot, 18 Prs.</td>
<td>30</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Carcas. do. fixed, 18 Prs.</td>
<td>150</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Hand shells, fixed, sea service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuzes for 60 spare</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Pap. cov. for cart. 10 in.</td>
<td>106</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>Flan. cartridge, 20 to hold empt. for 15 lbs.</td>
<td>106</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>Shot, round, mor.</td>
<td>60</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Flan. cartridge, 20 to hold empt. for 68 lbs.</td>
<td>293</td>
<td>293</td>
<td></td>
</tr>
<tr>
<td>Flanc.cl cartridges, 18 Prs. to hold 15 lbs.</td>
<td>513</td>
<td>513</td>
<td></td>
</tr>
<tr>
<td>Paper cartridges for bursting, 10 inches, empty</td>
<td>351</td>
<td>351</td>
<td></td>
</tr>
<tr>
<td>Paper cartridges, for bursting, 8 inches, empty</td>
<td>190</td>
<td>190</td>
<td></td>
</tr>
</tbody>
</table>
BOMBA RUPTURES, a small vessel of war laden with ammunition for the bomb-ketch, and from which the latter is constantly supplied.

BOMBARD, an ancient piece of ordnance, so called, very short, and very thick, with an uncommon large bore—there have been bombards which have thrown a ball or shell of 300 weight: they made use of cranes to load them. The Turks use some of them at present.

To BOMBARD, the act of as- 

BOMBARDING, sieving a city 

BOMBARDMENT, or foraying, by 

throwing shells into it, in order to set fire to and ruin the houses, churches, maga- 

The act of as-

niques, &c. and to do other mischief. As 

one of the effects of the shell results from 

its weight, it is never discharged as a ball 

from cannon, that is, by pointing it at a 

terminate object: but the mortars are fixed 

at an elevation of 45 degrees, but 

that distance is made use of to throw 

the shell describes a curve

called the military projectile; hence a mortar, whose trunnions are placed at the breech, can have no point-blank range. Mortars should be so constructed that they may be elevated to any degree required, as much preferable to those fixed at an angle of 45°; because shells should never be thrown at that angle but in one single case only, which seldom happens; that is, when the battery is so far off, that they cannot otherwise reach the enemy. For when shells are thrown from the trenches into the works of a fortification, or from the town into the trenches, they should have as little elevation as possible, in order to roll along and not bury themselves; whereby the damage they do, and the terror they cause to the troops, is much greater than if they sunk into the ground. On the contrary, when shells are thrown upon magazines, or any other buildings, with an intention to destroy them, the mortar should be elevated as high as possible, that in shells may acquire a greater force in their fall. Shells should be loaded with more powder than is requisite to burst them into the greatest number of pieces, and the length of the fuzes should be exactly calculated according to the required ranges; for, should the fuze set fire to the powder in the shell, before it falls on the ground, the shell will burst in the air, and probably do more mischief to those who fired the mortar, than to those against whom it was discharged. To prevent this, the fuzes are divided into as many sections as the greatest range requires, consequently may be cut to any distance, at an elevation of 45 degrees.

Mortars are not to be fired with two fuzes; for when the fuze is properly fixed, and the shell is set on fire by the powder, the blast of the powder in the chamber of the mortar, when inflamed by the tube, will likewise set fire to the fuze fixed in the shell.

BOMBARDIERS, are soldiers who are employed in mortar and howitzer duty. They are to load them on all occasions; and in most services they load the shells and grenades, fix the fuzes, prepare the composition both for fuzes and tubes, and fire both mortars and howitzers on every occasion. In the English service, shells and grenades, composition for the same, fuzes, &c. are prepared in the laboratory by people well-skilled in that business.

In most other armies both officers and soldiers belonging to the companies of bombardiers, have an extraordinary pay, as it requires more mathematical learning to throw shells with some degree of exactness, than is requisite for the rest of the artillery. In the British service a specific number is allotted to each company of artillery, and do not form a separate corps as in other countries.

BUNAVOGLIS, P., a man that for
a certain consideration voluntarily engages to row.

BONNET, in fortification, implies a small segmental work, that greatly annoy the enemy in their lodgings. This work consists of two faces, which make a salient angle in the manner of a ravine, without any ditch, having only a parapet 3 feet high, and 10 or 12 feet broad. They are made at the salient angles of the kilts, outworks, and body of the place, beyond the counterscarp, and in the faussebray.

BONNET à Prêtre, or Priest's Cap, in fortification, is an outwork, having three salient and two inward angles, and differs from the double salient only in having its sides incline towards the gorge, and those of a double salient: are parallel to each other. See Fortification.

BORDER, in military drawings, implies simple or double lines, or any other ornament, round a drawing, &c.

BOOKS. There are different books made use of in the army, for the specific purposes of general and regimental economy.

The general orderly Book is kept by the brigade major, from which the leading orders of regiments, conveying the parole and countersign, are always taken.

The regimental orderly Book is kept by the clerk of the regiment, and contains all the records, &c. belonging to the corps. The Company Book, is kept by the commanding officer of every company; and contains returns of all incidents and paroles.

The black Book is a sort of memorandum which is kept in every regiment, to denote the character and conduct of non-commissioned officers and soldiers; when and how often they have been reduced or punished, &c.

Every quarter-master belonging to the cavalry and infantry, has likewise a book which may not improperly be called a book or inventory of regimental stores, &c.

Practice Book. Every officer of the artillery ought to have a book in which he should note every useful fact that occurs in practice.

BOOM, in marine fortification, is a long piece of timber, with which rivers or inlets are stopped, to prevent the enemy's coming in; it is sometimes done by a cable or chain, and fixed with yards, tomparts, or spars of wood lashed to it.

BORE, in gunnery, implies the cavity of the barrel of a gun, mortar, howitzer, or any other piece of ordnance.

ROSSE, Fr. a term used in the French artillery, to express a glass bottle which is very thin, contains four or five pounds of powder, and round the neck of which four or five matches are hung under, after it has been well-cooked. A cord, two or three feet in length, is tied to the bottle, which serves to throw it. The instant the bottle breaks, the powder catches fire, and every thing within the immediate effects of the explosion is destroyed.

BOTTES, Fr. boots. Grosses Bottes, Fr. jack-boots. BOTTINE, Fr. half-boots worn by the bussards and dragoons in foreign armies.

BOUCHE, Fr. means the aperture or mouth of a piece of ordnance, that of a mortar, of the barrel of a musket, and of every species of fire-arms from which a ball or bullet is discharged.

BOUCHES à feu, Fr. is generally used to signify pieces of ordnance.

BOULER sa Matiere, Fr. to stir up the different metals which are used in casting cannon.

BOULETS à deux tiers, chain-shot.

BOULEVART, Fr. formerly meant a bastion. It is no longer used as a military phrase, although it sometimes occurs in the description of lines or orders which cover a whole country, and protect it from the incursions of an enemy.

Thus Strasburgh and Landau may be called two principal boulevarts or bulwarks, by which France is protected on this side of the Rhine.

The elevated line or rampart which reaches from the Champs Elysees in Paris beyond the spot where the bastille was destroyed in 1789, is stiled the Boulevart.

In ancient times, when the Romans attacked any place, they raised boulevarts near the circumference of the walls. These boulevarts were 80 feet high, 200 feet broad, upon which wooden towers commanding the ramparts were erected covered on all sides with iron-work, and from which the besiegers threw upon the besieged stones, darts, fire-works, &c. to facilitate the approaches of the archers and battering rams.

BOULINER, Fr. a French military phrase. Bouliner dans un camp, means to steal or piller in a camp. Un soldat bouliner, signifies a thief.

BOURGIGNOTE, Fr. is a helmet or morion which is usually worn with a breast-plate. It is proof against pikes and swords.

BOURRELET, Fr. the extremity of a piece of ordnance towards its mouth. It is usually cast in the shape of a tulip on account of its aptitude to fit the construction of embrasures. Bourrelet means likewise a pad or collar.

BOURRE, Fr. to ram the wad or any other materials into the barrel of a fire-arm.
BOURRIQUET, a basket made use of in mining, to draw up the earth, and to let down whatever may be necessary for the miner.

BOUSOZLE, a compass which every miner must be in possession of to direct him in his work.

ROUTE-SELLER, the signal or word which is given to the cavalry to saddle their horses.

BOUTON, the sight of a musquet.

BOW, an ancient weapon of offence, made of steel, wood, or other elastic matter; when, after being bent by means of a string fastened to its two ends in returning to its natural state, throws out an arrow with proscriptive force.

The use of the bow is, without all doubt, of the earliest antiquity. It has likewise been the most universal of all weapons, having obtained amongst the most barbarous and remote people, who had the least communication with the rest of mankind.

The bow is a weapon of offence amongst the inhabitants of Asia, Africa, and America, at this day; and in Europe, before the invention of fire-arms, a part of the infantry was armed with bows. Lewis XII. first abolished the use of them in France, introducing, in their stead, the ballista, pike, and broadsword. The longbow was formerly in great use in England, and many laws were made to encourage the use of it. The parliament under Henry VII. complained of the use of long bows, therefore the sale-guard and defence of that kingdom, and the dread and terror of its enemies.

Cross-bow, is likewise an ancient weapon of offence, of the eleventh century. Philip II. summoned the Conqueror, introduced cross-bows into France. In this reign Richard I. of England, was killed by a cross-bow at the siege of Chalus.

BOWMAN. See Archer.

BOWYER. The man who made or repaired the military bows was so called.

BOXES, in military affairs, are of several sorts, and for various purposes.

Battery-boxes. See Battery.

Carrousel-boxes. See Cartouch.

Wood-boxes, with lids, for holding gun-shot, &c. each calibre has its own, distinguished by marks of the calibre on the lid.

Box for Ammunition. The dimensions of the common ammunition boxes vary according to the ammunition they are made to contain, in order that it may pack tight; this variation, however, is confined to a few inches, and does not exceed the following numbers.

| Weight when filled, and number contained in each. |
|-----------------|------------------|-----------------|------------------|
| 1 lb.           | 1 lb.            | 1 lb.           |
| 12 lbs.         | 6 lbs.           | 3 lbs.          |

Weight when filled, and number contained in each.

Table of general dimensions of Ammunition Boxes.

<table>
<thead>
<tr>
<th>Interior.</th>
<th>Weight when filled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ft.</td>
<td>lb.</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Kinds of Ammunition.

<table>
<thead>
<tr>
<th>Kind of Ammunition</th>
<th>Weight in lbs.</th>
<th>Exterior.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case.</td>
<td>6</td>
<td>12 Pcs.</td>
</tr>
<tr>
<td>Round.</td>
<td>3</td>
<td>20 lbs.</td>
</tr>
<tr>
<td>Shells.</td>
<td>2</td>
<td>24 lbs.</td>
</tr>
</tbody>
</table>

The common ammunition weight will hold from 9 to 13 of these boxes in one tier.

The tonnage of ammunition in boxes is equal to its weight: about 12 boxes make one ton.

BOYAU, in fortification, is a particular trench separated from the others, which, in wasting about, incloses different spaces of ground, and runs parallel with the works of the place, that it may not be enfiladed. When two attacks are made at once, one near to the other, the boyau makes a communication between the trenches, and serves as a line of communication, not only to hinder the salients of the besieged, but likewise to secure the miners.

BRACES, in a military sense, are a kind of armor for the arm: they were formerly a part of a coat of mail.

BRACKETS, in gunnery, are the sockets of the travelling carriage of a mortar; they are made of strong wooden planks. This name is also given to that part of a large mortar-bed, where the
trunnions are placed, for the elevation of the mortar; they are sometimes made of wood, and more frequently of iron, or almost a semicircular hanger, well fastened with nails and iron plates.

**BRANCH.** See **MINT** and **GALLERIES**.

**BRAQUER.** An ancient term for a sword; so called by the Saxons.

**BRASSARTS.** Fr. thin plates of beaten iron which were anciently used to cover the arms above the coat of mail. They are but seldom used now.

**BRASSUITS and CURASSES** were worn in the days of St. Louis.

**BREECH.** Of wood, and more frequently of iron, of front. It is also used to signify the first opening of the earth to form entrenchments, as at the commencement of a siege. It applies also to the striking of tents and quitting the ground on which any troops had been encamped.

To **BREAK** ground, to begin, to open and work at the trenches, in a siege, &c.

**BREAK-GROUND** is a rank in the army higher than that for which you receive pay; and gives a precedence when corps are brigaded, to the date of the brevet commission.

**BREACH,** Fr. commission, appointment. Under the old government of France it consisted in letters or appointments signed by the king, by virtue of which every officer was authorized to discharge his particular duty. All officers in the old French service, from a cornet or sub-lieutenant up to a marshal of France were stild **Guisers à Breu.**

**BREVET.** See **PARAPET.**

**BRECH** of a gun, the end near the vent. See **CANNON.**

**BREACH-GROUND,** a semi-circular figure, well fastened from line; as to express the movement of a cannon when encamped. To **BREW** the cannon to the right, for wheeling to the left.
the sun or air, are burnt to a hardness.

This is our manner of making bricks; but whether they were always made in this manner admits a doubt. We are not

sure what was the use of straw in the bricks for building in Egypt, or why in some part of Germany they mix saw-dust in their clay for bricks.

We are in general tied down by custom to one form, and one size; which is truly ridiculous: 8 or 9 inches in length, and 4

in breadth, is the general measure; but beyond doubt there might be other forms, and other sizes, introduced very advan-
tageously.

**Company Bricks**, are of a circular form; their use is for stoning walls; we have also concaee, and semi-cylindrical, used for different purposes.

**Grey Stocks**, are made of the purest earth, and better wrought; they are us'd in front in building, being the strongest and handsomest of this kind.

**Place Bricks**, are made of the same earth, or worse, and being carelessly put out of hand, are therefore weaker and more brittle, and are only used out of sight, and where little stress is laid on them.

**Red Stocks**, are made of a particular earth, well wrought, and little injured by mixtures: they are used in fance work, and ornamentation.

**Hedge-Bricks**, are made of a yellowish colored loam, very hard to the touch, containing a great quantity of sand; their particular excellence is, that they will bear the greatest violence of fire with

them.

**BRICLE**, an improved kind of traces used by the French in drawing and manouuvring artillery; analogous to the old drag ropes, being the addition of a leather strap of girdle with a buckle, to which the ring is affixed, and an iron ring and hook at the end to drag by.

**Bridges.** Manner of laying a pontoon bridge across a river.

The bank on each side, where the ends of the bridge are to be, must be made solid and firm, by means of fascines, or otherwise. One end of the cable must be carried across the river; and being fixed to a pcket, or anything firm, must be drawn tight by means of a capstan, across where the heads of the boats are to be ranged. The boats are then launched, having on board each two men, and the necessary ropes, &c. and are floated down the stream, under the cable, to which they are lashed endwise, by the rings and small ropes, at equal distances, and about their own breadth asunder; more or less, according to the strength required. If

the river be very rapid, a second cable must be stretched across it, parallel to the first, and at the distance of the length of the boats; and to which the other ends of the boats must be lashed.

The spring lines are then lashed diagonally from one boat to the other, to brace their

right; and the anchors, if necessary, carried out, up the streams, and fixed to the cable or sheer-line across the river. One of the chesses is then laid on the edge of the bank, at each end of the bridge, bottom up; these serve to lay the ends of the baulks upon, and as a direction for placing them at the proper distances, to fill the chesses that cover the bridge. The baulks should then be laid across the boats, and keyed together: their numbers proportioned to the strength required in the bridge. If the panyards are laid across the heads and sterns of the boats from one side of the river to the other, they will give the men a footing for doing the rest of the work. Across the baulks are laid the chesses, one after another, the edges to meet; and the baulks running between the cross pieces on the under side of the chesses. The panyards are then laid across the ends of the chesses on each edge of the bridge.

**Precautions for passing a bridge of boats.**

Whatever size the bridge may be, infantry should never be allowed to pass at the same time with carriages or cavalry.

The carriages should always move at a certain distance behind each other, that the bridge may not be shook, by being over-laden. The horses should not be allowed to trot over the bridge; and cavalry should dismount and lead their horses over. Large flocks of cattle must not be allowed to cross at a time.

For the dimensions, weight, and equipment of a pontoon, see the word **Pon-toon**.

When bridges are made to facilitate the communication between different parts of the approaches at a siege, they should, if possible, be placed above the town; or the bastion will take advantage of the current to float down large trees, or other bodies, in order to destroy the bridge.

Two of such bridges should always be placed close to each other, in order to prevent the confusion of crossing and recrossing on the same bridge; the one being intend to pass over one way, and the other to return. Pontoon bridges will generally not support a greater weight than 4 or 5,000 pounds. Pontoon, when united as a bridge, will no doubt bear more in proportion, than when acted upon separately; but the weight which a pontoon will bear may be easily ascertained, by loading it with water till it sinks to any required depth, and then by calculating the number of cubic feet of water it contains, ascertain the number of pounds required to sink it to that particular depth.

**Bridges,** in military affairs, are of several sorts and denominations, viz. **Rudh-Bridges**, are made of large bundles of rushes, bound fast together, over which planks are laid, and fastened; these are put in marshy places, for an army to pass over on emergency. **Pontoon or Large Bridges,** are these
Draw-Bridge, that which is fastened with hinges at one end only, so that the other may be drawn up (in which case the bridge is almost perpendicular) to hinder the passage of a boat, &c. There are others made to draw back and hinder the passage; and some that open in the midst; one half of which turns away to one side, and the other half to the other, and both again join at pleasure.

Flying-Bridge, is generally made of two lines of boats, laid one over the other, in such a manner that the uppermost stretches, and runs out by the help of certain cords running through pulleys placed along the sides of the upper bridge, which push it forwards, till the end of it joins the place it is intended to be fixed on. They are frequently used to surprise works, or outposts that have but narrow ditches. There is a curious bridge of this kind on the Ohio, worthy of the attention.

Barnes of boats, is a number of common boats joined parallel to each other, at the distance of 6 feet, till they reach across the river; which being covered with strong planks, and fastened with anchors and ropes, the troops march over.

Bridge of communication, is that made over a river, by which two armies, or forts, which are separated by that river, have a free communication with one another.

Floating-Bridge, a bridge made use of in forms of a work in fortification called a redoubt; consisting of two boats, covered with planks, which are solidly framed, and fastened to the sides: and these redoubts are also sometimes used.

Floating bridges made of large logs of light timber bound together with a floor along them are common in the United States.

Fusum-Bridge, a number of tin or copper boats placed at the distance of 7 or 8 feet asunder, each fastened with an anchor, or a strong rope that goes across the river, running through the rings of the pontons. They are covered with baulk, and then with chests or planks, for the army to march over. See Pontoon.

Cash, or Barrel Bridge, a number of empty casks that support baulk, and planks, made as above into a bridge, where pontons, &c. are wanting. Experience has taught us that 5 ton of empty casks will support above one water 1000 pounds; hence any calculation may be made.

Brick-are made of carpentry or masonry. The number of arches of a bridge is generally made odd; either that the middle of the stream or chief current may flow freely without interruption: or that the two halves of the bridge, by gradually rising from the pier to the middle, may there meet in the highest and largest arch; or else, for the sake of grace, that by being open in the middle, the eye in viewing it may look directly through there, as we always expect to do in looking at it, and without which opening we generally feel a disappointment in viewing it.

If the bridge be equally high throughout, the arches, being all of a height, are made all of a size, which causes a great saving of centering. If the bridge be higher in the middle than at the sides, let the arches decrease from the middle towards each end, but so that each half have the arches exactly alike, and that they decrease in span proportionally to their height, so as to be always the same kind of figure. Bridges should rather be of few and large arches, than of many and small ones, if the height and situation will allow of it.

Names of all the terms, peculiar to Bridges, &c. See Bridges.

Arch, an opening of a bridge, through which the water, &c. passes, and which is supported by the piers or monuments. Arches are denominated circular, elliptical, cycloidal, catenary, equi-brutal, gothic, &c. according to their figure or curve.

Archivolts, the curve or line formed by the upper sides of the voussoirs or archstones. It is parallel to the intrados or middle, and joined by the archivolt, which is fastened: and largest arch; or else, for the sake of grace, that by being open in the middle, the eye in viewing it may look directly through there, as we always expect to do in looking at it, and without which opening we generally feel a disappointment in viewing it.

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or dove-tailed into each other, or with piles grooved in the sides, driven in a distance from one another, and boards let down between them in the grooves.

Butments, are the extremities of a bridge, by which it joins to, or abuts upon, the land, or sides of the river, &c.

These must be made very secure, quite immoveable, and more than barely sufficient to resist the drift of its adjacent arch, so that, if there are not rocks or very solid banks to raise them against, they must be well re-inforced with proper walls or returns, &c.

Caisson, a kind of chest, or flat-bottomed boat, in which a pier is built, then sunk to the bed of the river, and the sides laced and taken off from the broken pieces of different circular arches; then sunk to the bed of the river, and an irregular misshapen curve made up of broken pieces of different circular arches; for these will form no ellipse at all, but an irregular misshapen curve made up of broken pieces of different circular arches; but if the arch be of any other form, the several abscissas and ordinates should be calculated; then their corresponding lengths, transferred to the centering, will give so many points of the curve; by bending a bow of pliable matter, according to those points, the curve may be drawn.

The centres are constructed of beams of timber, firmly pinned and bound together, into one entire compact form, covered smooth at top with planks or boards to place the voussoirs on; the whole supported by off-sets in the sides of the pier, and by piles driven into the bed of the river, and capable of being raised and depressed by wedges contrived for that purpose, and for taking them down when the arch is completed. They should also be constructed of a strength more than sufficient to bear the weight of the work, so as always to keep its top above water; and therefore the sides must be made very strong, and kept immoveable by cross-timbers within, lest the great pressure of the ambient water crush the sides in, and so not only endanger the work, but also drown the workmen with it. The caisson is made of the shape of the pier, but some feet wider on every side, for the men to work in; the whole of the sides are of two pieces, both joined to the bottom quite round, and to each other at the salient angle, so as to be disengaged from the bottom, and from each other, when the pier is raised to the desired height, and sunk. It is also convenient to have a little sluice made in the bottom, occasionally to open and shut, to sink the caisson and pier sometimes by, before it be finished, to try if it bottom level and right; for by opening the sluice, the water will rush in and fill it to the height of the exterior water, and the weight of the work already built will sink it; then by shutting the sluice again, and pumping out the water, it will be made to float again, and the rest of the work may be completed. It must not however be sunk except when the sides are high enough to reach above the surface of the water, otherwise it cannot be raised and laid dry again. Mr. Labelye states, that the caissons in which he built Westminster bridge, London, contained above 150 loads of fir timber, of 40 cubic feet each, and were of more tonnage or capacity than a 40 gun ship of war.

Centres, are the timber frames erected in the spaces of the arches to turn them on, by building on them the voussoirs of the arch. As the centre serves as a foundation for the arch to be built on, when the arch is completed, that foundation is struck from under it, to make way for the water and navigation, and then the arch will stand of itself from its curved figure. The centre must be constructed of the exact figure of the intended arch, convex, as the arch is concave, to receive it on as a mould. If the form be circular, the curve is struck from a central point by a radius; if it be elliptical, it should be struck with a double cord, passing over two pins fixed in the fociuses, as the mathematicians describe their ellipses; and not by striking different pieces or arcs of circles from several centres; for these will form no ellipsis at all, but an irregular misshapen curve made up of broken pieces of different circular arches; but if the arch be of any other form, the several abscissas and ordinates should be calculated; then their corresponding lengths, transferred to the centering, will give so many points of the curve; by bending a bow of pliable matter, according to those points, the curve may be drawn.

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scale annexed to it, to measure the parts by. It is also the manner of working up and decorating the fronts of the bridge.

The Exits, the exterior curvature or line of an arch. In the propositions of the second section in Professor Button's Principles of Bridges, it is the outer or upper line of the wall above the arch; but it often means only the upper or exterior curve of the voussoirs.

Foundations, the bottoms of the piers, &c. or the bases on which they are built. These bottoms are always to be made with projections, greater or less, according to the spaces on which they are built; and according to the nature of the ground, the velocity of the water, &c. The foundations are laid and the piers built after different manners, either in casions, in barricades on stilts with sterilies, &c. for the particular method of doing which, see each under its respective term.

The most obvious and simple method of laying the foundations and raising the piers up to the water mark, is to turn the river out of its course above the place of the bridge, into a new channel, cut for it near the place where it makes an elbow or turn; then the piers are built on dry ground, and the water turned into its old course again; the new one being securely banked up. This is certainly the best method when the new channel can be easily and conveniently made. This, however, is seldom or never the case.

Another method is, to lay only the space of each pier dry till it be built, by surrounding it with piles and planks driven down into the bed of the river, so close together as to exclude the water from coming in; then the water is pumped out of the inclosed space, the pier built in it, and last, the piles and planks drawn up. This is ordinary work, but evidently cannot be practised if the bottom be of a loose consistence, admitting the water to ooz and spring up through it.

When neither the whole nor part of the river can be easily laid dry as above, other methods are to be used, such as to build either in casions or on stilts, both which methods are described under their proper words; or yet by another method, which hath, though seldom, been sometimes used, without laying the bottom dry, and which is thus: the pier is built upon strong caissons or casings of timber, well bound together, and buoyed up on the surface of the water by strong cables, fixed to the other casions or machines, till the pier is built; the whole is then gently let down to the bottom, which must be made level for the purpose; but on these occasions, that of building in casions is last.

But before the pier can be built in any manner, the ground at the bottom must be well secured, and made quite good and safe, if it be not so naturally. The space must be bored into, to try the consistence of the ground; and if a good bottom of stone, or firm gravel, clay, &c. be met with, within a moderate depth below the bed of the river, the loose sand, &c. must be removed and dug out to it, and the foundation laid on the firm bottom on a strong gravel or base of timber made the more solid every way than the pier, that there may be the greater base to press on, to prevent its being sunk; but if a solid bottom cannot be found at a convenient depth to dig to, the space must then be driven full of strong piles, whose tops must be sawed off level some feet below the bed of the water, the sand having been previously dug out for that purpose; and then the foundation on a gravel of timber laid on their tops as before: or, when the bottom is not good, if it be made level, and a strong grating of timber, 2, 3, or 4 times as large as the base of the pier be made, it will form a good base to build on, its great size preventing it from sinking. In driving the piles, begin at the middle, and proceed outwards all the way to the borders or margins; the reason of which is, that if the piles were driven first, the earth of the inner space would be thereby so jammed together, as not to allow the inner piles to be driven, and besides the piles immediately under the piers, it is also very prudent to drive in a single, double, or triple row of them round, and close to the frame of the foundation, cutting them off a little above it, to secure it from slipping aside out of its place, and to bind the ground under the pier firmer: for, as the safety of the whole bridge depends on the foundation, too much care can never be used to have the bottom made quite secure.

Parapet, the border made round the stilts under a pier. See Syston. Arch-stone, the middle voussoir, or the arch-stone in the top or immediately over the centre of the arch. The arch-stone, or thickness of the arch-walls at tops, is allowed to be about 1-15th or 1-16th of the span, by the best architects.

Ortography, the elevation of a bridge, or front view, as seen at an infinite distance.

Parapet, the breast-wall made on the top of a bridge to prevent passers from falling over. In good bridges, to build the parapet but a little part of its height close or solid, and upon it at a balustrade to above a man's height, has an elegant effect.

Fiers, the walls built for the support of the arches, and from which they are raised as their bases. They should be built of large blocks of stone, solid throughout, and cramped together with iron, which...
will make the whole as one solid stone. Their faces or ends, from the base up to low-water-mark, should project sharp out with a salient angle, to divide the stream: or, perhaps the bottom of the pier should be built flat or square up to about half the height of low-water-mark, to allow a lodgement against it for the sand and mud, to go over the foundation; lest, by being kept bare, the water should in time undermine, and so ruin or injure it. The best form of the projection for dividing the stream, is the triangle; and the longer it is, or the more acute the salient angle, the better it will divide it, and the less will the force of the water be against the pier; but it may be sufficient to make that angle a right one, as it will make the work stronger; and in that case the perpendicular projection will be equal to half the breadth or thickness of the pier. In rivers, on which large heavy craft navigate and pass the arches, it may, perhaps, be better to make the end semicircular: for, although it does not divide the water so well, it will both better turn off and bear the shock of the craft.

The thickness of the piers should be such as will make them of weight or strength sufficient to support their in-terjacent arch independent of any other arches; and then, if the middle of the pier be up to its full height, the centering may be struck to be used in another arch before the hanches are filled, or the voussoirs, of the arches, by stirrup, of iron at the bottom, the better to penetrate saury. A semicircular end, though it does not divide by the violent as it carries the craft the better oft'n.

Piles, or stilts, are timbers driven into the bed of the river for various purposes, and are either round, square, or flat like planks. They may be of any wood which will not rot under water; but oak and fir are mostly used, especially the latter, on account of its length, straightness, and cheapness. They are shod with a pointed iron at the bottom, the better to penetrate into the ground, and are bound with a strong iron band or ring at top, to prevent them from being split by the violent strokes of the ram by which they are driven down.

Piles are either used to build the founda-tions on, or they are driven about the pier as a border of defence, or to support the centres on; and in this case, when the centre is removed, they must either be drawn up, or sawed off very low under water; but it is better to saw them off and leave them sticking in the bottom, lest the drawing of them out should loosen the ground about the foundation of the pier. Those to build on, are either such as are cut off by the bottom of the water, or rather a few feet within the bed of the river; or else such as are cut off at low-water-mark, and then they are called stilts. Those to form borders of defence, or rows driven in close by the frame of a foundation, to keep it firm, or else they are to form a case or jetée about the stilts, to keep the stream within its limits, that is sometimes necessary to surround a stone pier with a jetée, or jetée, and fill it up with stones to secure an injured pier from being still more damaged; and the whole bridge ruined. The piles to support the centres may also serve as a border of pilings to secure the foundation, cutting them off low enough after the centre is removed.

Pile-driver, an engine for driving down the piles. It consists of a large ram or iron sliding perpendicularly down between two guide posts, which being lifted up to the top of them, and there let fall from a great height, comes down upon the top of the pile with a violent blow. It is worked either with men or horses, and either with or without wheel-work. The bridge on Schuylkill, Philadelphia, is a master-piece of workmanship; and the new bridge at Trenton, over the Delaware, is equally bold and ingenious in its plan —in the latter the floor is suspended from the voussoirs of the arch, by stirrups of iron.

Pitch, of an arch, the perpendicular height from the spring or impost to the keystone.

Plan, of any part, as of the founda-tions, or pier, or superstructure, is the orthographic projection of it on a plane parallel to the horizon.

Path, of an arch. See DRIFT.

Salient angle, of a pier, the projection of the end against the stream, to divide itself. The right-lined angle best divides the stream, and the more acute, the bet-ter for that purpose; but the right angle is generally used, as making the best mas-saity. A semicircular end, though it does not divide the stream so well, is sometimes better in large navigable rivers, as it carries the craft the better off, or bears their shocks the better.

Shot, of an arch. See DRIFT.

Springers, are the first or lowest stones of an arch, being those at its feet, and bearing immediately on the impost.

Stirrups, or Jetées, a kind of case made about a pier of stilts, &c. to secure it, and is particularly described under the next word, Stilts.

Stilts, a set of piles driven into the space intended for the pier, whose tops being sawed level off, above low-water mark, the pier is then raised on them. This method was formerly used when the bottom of the river could not be laid dry, and these stilts were surrounded, at
a few feet distance, by a row of piles and planks, &c. close to them like a coffer-dam, and called a sternling; or jetée; after which loose stones, &c. are thrown or poured down into the space, till it is filled up to the top, by that means forming a kind of pier of rubble of loose work, and which is kept together by the sides or sternlings; this is then paved level at the top, and the arches turned upon it. This method was formerly much used, most of the large old bridges in England being erected that way, such as London bridge, Newmarket bridge, Rochester bridge, &c. But the inconveniences attending it are so great, that it is now quite disused; for, because of the loose composition of the piers, they must be made very large or broad, or else the arch must push them over, and rush down as soon as the centre was drawn; which great breadth of piers and sternlings to much contracts the passage of the water, as not only very much to inconvenience the navigation through the arch, from the fall and quick motion of the water; but likewise to put the bridge itself in much danger, especially in time of floods, when the water is too much for the passage. Add to this, that besides the danger there is of the pier bursting out the sternlings, they are also subject to much decay and damage by the velocity of the water and the craft passing through the arches.

**Thrust.** See **DRAFT**.

**Pleurules,** the stones which immediately support the arch, their undersides constituting the intrados. The middle one, or key-stone, should be about 1/3d of or 1/4th of the span, as has been observed, and the rest should increase in size all the way down to the impost; the more they increase the better, as they will the better bear the great weight which rests upon them without being crushed; and also will bend the former together. Their joints should also be cut perpendicular to the curve of the intrados. For more information, see Professor Hutton's Principles of Bridges, in 8vo.

**Bridge,** in gunnery, the two pieces of timber which go between the two transoms of a gun-carriage, on which the coins are placed, for elevating the piece. See **Carriage**.

**BRIDLE.—Arm Protect,** a guard used by the cavalry, which consists in having the sword-lift above the helmet; the blade resting on the head, the point of the left shoulder, and the bridle-arm; its edge directed to the left, and turned a little upwards, in order to bring the mounting in a proper direction to protect the hand.

**BRIDON,** or **BRIDON,** the staffle and rein of a military bridle, which acts independently of the bit and curb at the pleasure of the rider.

**BRIGADE,** in military affairs, implies a party or division of a body of soldiers, whether horse, foot, or artillery, under the command of a brigadier. There are, properly speaking, three sorts of brigades, viz. the brigade of a troop of horse, and the brigade of artillery. A brigade of the army is either foot or cavalry, whose exact number is not fixed, but generally consists of 3, 4, or 6 regiments, or battalions: a brigade of horse may consist of 8, 10 or 12 squadrons; and that of artillery, of 6, 8 or 10 pieces of cannon, with all their appurtenances. The eldest brigade takes the right of the first line, the second of the second line, and the rest in order, the youngest always possessing the centre, unless the commander deems a different arrangement expedient; and in such case mere etiquette always binds to orders. — The cavalry and artillery observe the same order.

The Horse Artillery in the British service are called the horse brigades; and consist of 6 troops, with their guns and stores. Their head-quarters are at Woolwich, where handsome barracks, detached from those of the royal artillery, have been erected for their accommodation.

**BRIGADE,—Major-General.** In the French ordination, is the same as our **Regiment;** but it consists of 3 battalions, each of which is equal to one of our regiments or companies; a demi-brigade is half a regiment, or a French battalion.

**Brigade-Major,** an officer appointed by the brigadier, to assist him in the management of his brigade. The most experienced captains are generally nominated to this post; who act in the brigade as major-generals do in the armies, receiving their orders from their commanders.

**Brigade-Major-General.** The military commands in Great Britain are divided into districts; an office has been established for the sole transaction of brigade duties. Through this office all orders from the commander-in-chief to the generals of districts relative to corps of officers, &c. must pass. For further information on this head, see James's Regimental Companion, 2d edition, vol. i. page 25.

**Brigade de Boulangers,** Fr. It was usual in the old French service, to have the bakers belonging to the army. Each brigade consisted of one master baker and three bakers; the system is continued in the modern French army.

**Brigadier,** a military officer, whose rank is next above that of a colonel; appointed to command a corps, consisting of several battalions or regiments, called a brigade. This title in England is suppressed in time of peace, but revived in actual service in the field. Every brigadier marches at the head of his brigade upon duty. On the United States establishment, there is only one brigadier-general, who is chief in actual command; provision has been lately
made by law for two more in case of war.

BRIGANDINE, or BRIGANTINE, in ancient military history, a coat of mail, or kind of defensive armor, consisting of tin.

BRINGERS-UP, an antiquated military expression, to signify the whole rear rank of a battalion drawn up, as being the hindmost men of every file.

BRINS-DE-Fois, Fr. large sticks or poles resembling small pickets, with iron at each end. They are used to cross ditches, particularly in Flanders.

BRISURE, in fortification, is a line of four or five fathoms, which is allowed to the curtain and orillon, to make the hollow tower, or to cover the concealed flank.

BROADSIDE, in a sea fight, implies the discharge of all the artillery on one side of a ship of war.

BROAD-SWORD, a sword with a broad blade, chiefly designed for cutting; not at present much used in the British service, except by some few regiments of cavalry and Highland infantry. Among the cavalry, this weapon has in general given place to the sabre.

The principal guards with the broad-sword are:

- The inside guard, which is a position between the inside and outside guard, seldom used, as it affords very little protection.
- The hanging guard, similar to prime and secunde in which the hilt of your sword is raised high enough to view your opponent under the shell, and the point directed towards his body.
- The St. George's guard, which protects the head, and differs from the last-described only in raising the hand somewhat higher, and bringing the point nearer to yourself.

The swords worn by officers of the infantry being constructed either for cutting or thrusting, it is necessary for gentlemen to be acquainted both with the method of attacking and defending with the broad sword and with the rapier. Those who have not opportunity of regular lessons from a professed teacher, may obtain much useful information from a work entitled the Art of Defence on Foot, with the Broad Sword, &c. in which the spadroon or cut and thrust sword play is reduced into a regular system.

BROND. See BRAND.

BROWNBILL, the ancient weapon of the English foot, resembling a battle-ax.

BRUNT The troops who sustain the principal shock of the enemy in action, are said to bear the brunt of the battle.

BRUSQUER une attaque, Fr. is to open the trenches in the nearest approaches to a place, completing the works from the front towards the rear. This undertaking is extremely hazardous, unless the object invested, or attacked, be ill-garrisoned, have a narrow front to besiege, the ditches be dry, &c.

BRUSQUER Paupières, Fr. to attack suddenly, and without attending to any regular rule of military manoeuvre.

BUCCANEERS, in military history, a name frequently applied to those famous adventurers, consisting of pirates, &c. from all the maritime nations of Europe, who formerly joined together, and made war upon the Spaniards in America.

BUCKETS. Water-buckets are necessary appendages to field-pieces, to cool the gun when hotly engaged; otherwise it might fire itself, or run at the muzzle.

BUCKLER, a piece of defensive armor used by the ancients. It was always worn on the left arm, and composed of wicker-work, of the lightest sort, but most commonly of hides, fortified with plates of brass or other metals. The shape of it varied considerably, being sometimes round, oval, and often nearly square. The shield of Achilles in the Iliad, as well as the book itself merits the attention of the military student.

BUDGE-Barrel. See Barrel.

BUFF-Leather, in military accoutrements, is a sort of leather prepared from the buffalo, which, dressed with oil, after the manner of shamos, makes what is generally called bulk-skin. Swordbelts were made of this leather.

BUGLE-HORN, the old Saxon horn: it is now used by the light infantry, and particularly by riflemen. By its soundings, their manoeuvres are directed, either in advancing, skirmishing, or retreating. It is also used by the horse artillery, and some regiments of light cavalry.

BUILDING, in a general sense, a fabric erected by art, either for devotion, magnificence, convenience, or defence.

Military Buildings are of various sorts, viz. powder-magazines, bridges, gates, barracks, hospitals, store-houses, guard-rooms, &c. Regular Building, is that whose plan is square, the opposite sides equal,
and all the parts disposed with symmetry.

*Irregular Building* that whose plan is not contained within equal or parallel lines, either by the accident of situation, or the design of the builder, and whose parts are not relative to one another in the elevation.

*Insulated Building* that which is not a good neighbour to any other, but is encompassed with streets, open squares, &c. or any building which stands in a rock surrounded by the sea, marsh, &c.

*Engaged Building* one surrounded with square stones; which adjoin both to any street or public place, nor any communication without, but by a common passage.

*Interred Building* one whose plan is below the surface of the place where it stands, and of which the lowest course of stone are concealed.

In building there are three things to be considered, viz. commodity or convenience; secondly, firmness or stability; thirdly, delight.

To accomplish which ends, Wotton considers the whole subject under two parts. 1. As for the seat, either that of the builder, and whose plan is not contiguous to any other, but is engaged by the commonalty. 2. As for the situation, regard is to be had to the quality, temperature, and salubrity of the air; that it may be a good healthy air, and not subject to any street or public place, nor an any communication without, but by a common passage.

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communicated to the combustibles within, and an explosion takes place, similar to that occasioned by the blowing up of a mine.

Bullets, are two balls which are joined together by a chain, at any given distance from each other.

Branch Bullets, are two halves of a bullet which are kept together by means of a bar or chain.

Bulwark, the ancient name for bastion or rampart, which words see.

Bulwark, see Counterscarp, or bastion.

Burial, as practised by the military, are as follows, in the British service, viz. The funeral of a field, marshal shall be saluted with 3 rounds of 15 pieces of cannon, attended by 6 battalions, and 3 squadrons.

That of a general, with 3 rounds of 11 pieces of cannon, 4 battalions, and 3 squadrons.

That of a lieutenant-general, with 3 rounds of 10 pieces of cannon, 3 battalions, and 3 squadrons.

That of a major-general, with 3 rounds of 7 pieces of cannon, 2 battalions, and 3 squadrons.

That of a brigadier-general, 3 rounds of 5 pieces of cannon, 2 battalion, and 2 squadrons.

That of a colonel, by his own battalion, or an equal number by detachment, with 3 rounds of small arms.

That of a lieutenant-colonel, by 300 men and officers, with 3 rounds of small arms.

That of a major, by 200 men and officers, with 3 rounds of small arms.

That of a captain, by his own company, or 70 rank and file, with 3 rounds of small arms.

That of a lieutenat, by 3 lieutenants, 1 sergeant, 1 drummer, 1 fifer, and 36 rank and file, with 3 rounds.

That of an ensign, by an ensign, a sergeant, and drummer, and 27 rank and file, with 3 rounds.

That of an adjutant surgeon, and quarter-master, the same party as an ensign.

That of a sergeant, by a sergeant, and 19 rank and file, with 3 rounds of small arms.

That of a corporal, musician, private man, drummer, and fifer, by 1 sergeant and 13 rank and file, with 3 rounds of small arms.

All officers, attending the funerals of even their nearest relations, notwith-}

standing wear their regimentals, and a black crape round the left arm.

The pall to be supported by officers of the same rank with that of the deceased; if the number cannot be had, officers next in seniority are to supply their place.

The order of march to be observed in military funerals is reversed with respect to rank. For instance, if an officer is buried in a garrison town or from a camp, it is customary for the officers belonging to other corps to pay his remains the compliment of attendance. In which case the youngest ensign marches at the head immediately after the pall, and the general, if there be one, in the rear of the commissioned officers, who take their posts in reversed order according to seniority. The battalion, troop or company follow the same rule.

The expense for a regimental burial is to be charged against the captains of the respective troops or companies.

For further particulars, see Reid's Military Discipline.

Burk, in gunnery, a round iron ring, which serves to rivet the end of the bolt, so as to form a round head.

Burrel-shot, small bullets, nails, and stones discharged from any piece of ordnance.

Buzkin, a kind of shoe, or half boot, adapted to either foot; formerly a part of the Roman dress, particularly for tragic actors on the stage. They are now much worn by the army.

Butin, Fr. booty or pilage. At the beginning of the French monarchy, and for a long time after its establishment, a particular spot was marked out by the prince or general, to which all persons belonging to the victorious army were directed to bring every species of booty that might have fallen into their hands.

This booty was not divided, or appropriated according to the will and pleasure of the prince or general, but was thrown into different lots, and drawn for in common.

Butments. See Barree.

Butt, in gunnery, is a solid earthen paravel, to fire against in the proving of guns, or in practice.

Button, in gunnery, a part of the cascale, in either a gun or howitzer, and is the hind part of the piece, made round in the form of a ball. See Cannon.

Buttress. See Counterscarp.

Buze, a woollen, or linen pipe, to convey the air out of mines.
CABAS, Fr. a basket made of rushes, used in ancient Languedoc and Roussillon, for the purpose of conveying stores and ammunition. This term is adopted in military science.

CABINET COUNCIL, a council held with privacy and unbounded confidence.

CABLE, Fr. a large rope.

CADE, Fr. the corner of the room where the bed is placed, and one of the gates in many churches.

CADET, among the military, is a young gentleman, who applies himself to the study of fortification and gunnery, etc., and who sometimes serves in the army, with or without pay, till a vacancy happens for his promotion. The proper signification of the word is, younger brother. See ACADEMY.

CADET, Fr. differs in its signification from the term as it is used in our language. A cadet in the French service did not receive any pay, but entered as a volunteer in a troop or company, for the specific purpose of becoming master of military tactics.

In the reign of Louis XIV. there were companies of Cadets. The sons of noblemen and gentlemen of fashion were received into these companies, and when reported fit to undertake a military function, were nominated corporals, sub-lieutenants or ensigns. In the reign of Louis XV., a regulation was made, by which no cadet could be admitted unless he had passed his fifteenth year and was under twenty.

He was likewise obliged to prove his nobility by the testimony of four gentlemen officers' sons; however, were admitted on proof being given, that their fathers had actually served, or had died in the service.

A chaplain was appointed to every cadet-company, whose duty it was to instruct the cadets in reading and writing.

They had likewise a master in mathematics, a drawing master, a fencing master, and dancing master.

CADET, Fr. likewise means any officer that is junior to another.

CADET, among engineers, a CEMENT, a strong sort of mortar, used to bind bricks or stones together for some kind of moulding; or in cementing a block of bricks for the carving of capitals, scrolls, or the like. There are two sorts, i.e. hot cement, which is the most common, made of resin, beeswax, brick dust, and chalk, boiled together. The bricks to be cemented with this mixture, must be made hot in the fire, and rubbed to and fro after the cement is spread, in the same manner as joiners, when they glue two boards together. Cold cement, made of Cheshire cheese, milk, quick lime, and whis of egg. This cement is less used than the former, and is accounted a secret known but to very few bricklayers.

CADES, military antiquity, was a large gauntlet, composed of raw hides, used by pugilists at the public games.

CAGE de la Bastille, Fr. a space into which one part of the drawbridge falls, whilst the other rises and conceals the gate.

CAIC, Fr. a skiff or boat belonging to a French galley.

CAIMACAN, in military history, an officer among the Turks, nearly answering to our lieutenant.

CAISSÉ, Fr. Battre la caisse is used in the French service to express the beating of a drum instead of battre la Tambeur.

CAISSON, in military affairs, as a wooden frame or chest, made square, the side planks about 2 inches thick; it may be made to contain from 4 to 20 loaded shells, according to the execution they are to do, or as the ground is firmer or looser. The sides must be high enough, that when the cover is nailed on, the fuses may not be damaged. Caissons are buried under ground at the depth of 5 or 6 feet, under some work the enemy intends to possess himself of; and when he becomes master of it, fire is put to the train conveyed through a pipe, which inflames the shells, and blows up the assailants. Sometimes a quantity of loose powder is put into the chest, on which the shells are placed, sufficient to put them in motion, and raise them above ground; at the same time that the blast of powder sets fire to the fuses in the shells, which must be calculated to burn from 1 to 3 seconds. When no powder is put under the shells, a small quantity of meal and powder must be strewn over them, having a communication with the sausages, in order to convey the fire to the fuses.

CAISSON, Fr. a covered waggon, to carry bread or ammunition.

CAISSON, Fr. is variously used in the French service.

CAISSON des bouches, a tube which is filled with loaded shells and buried even with the ground. It is inclined a little on one side, and by means of a quantity of powder which is scattered on the top and connected with the bottom by a suspension, an explosion may be effected so as to throw the shells into the open air towards any given point. Caissins which are buried in the glaciers produce great effect.
CAISSON pour les vivres, Fr. a large chest whose lid rises in the centre somewhat like the capital of a pillar, in order that the rain may run off. The following dimensions were adopted to contain eight hundred rations at least.

The caisson or chest must be 8 French feet 6 inches long at least, 3 feet 4 inches high from the bottom to the extreme point of the lid, or chapter, 2 feet 6 inches from its square side to the bottom, 2 feet 5 inches broad at the bottom, outside, 2 feet 9 inches broad at top, and the cover or lid must be 4 feet 4 inches long. Poplar trees afford the best wood for the construction of caissons, because that species has a close grain, and is calculated to keep out rain.

CALATRAVA, a Spanish military order so called from a Fort of that name. The knights of Calattrava bear a cross, guules, fleur-de-lis'ted with green, &c.

CALIBRE, in gunnery, signifies the name of a particular instrument used by gunners, for measuring the diameter of shot, shells, &c. It is performed by covering the inside of the bore or opening: and the diameter of the bore is called the diameter of the caliber. This expression regards all pieces of artillery.

CALIBRE-Compasses, particular instruments used for measuring convex diameters in inches. 10. Rules for fining artillery and mortars. 11. A line of inches. 12. A sectoral line of equal parts, or the line of lines. 13. A sectoral line of planes, and supericies. 14. A sectoral line of solids. 15. A sectoral line of numbers, sines, versed sines and tangents. 16. A sectoral line of equal parts, or the line of lines. 17. A sectoral line of equal parts, or the line of lines. 18. A sectoral line of equal parts, or the line of lines. 19. A sectoral line of equal parts, or the line of lines. 20. A sectoral line of equal parts, or the line of lines.

CALIBRE, Fr. See CALIBRE.

CALIBRE, Fr. signifies, in a figurative sense, cast or character; as in homme de ce calibre, a man of this cast.

CALIBER, Fr. To take the measurement of the caliber of a gun. A particular instrument has been invented for this purpose. It resembles a compass with curved branches, which serve to grasp and measure a ball.

CALIVER, an old term for an arquebus or musket.

CALOTE, Fr. a species of skull cap which officers and soldiers wear under their hats in the French cavalry, and which are proof against a sabre or sword. Calotes are usually made of iron, wick, or dressed leather, and every officer chuse the sort he likes best. Those delivered out to the troops are made of iron.

CALQUING, a kind of a military drawing, &c. upon some plate, paper, &c. It is performed by covering the backside of the drawing with a black or red colour, and fixing the side so covered upon a piece of paper, waxed plate, &c. This done, every line in the drawing is to be traced over with a point, by which means all the outlines of the drawing will be transferred to the paper or plate.

CALTROPS, in military affairs, is a piece of iron having 4 points, all disposed in a triangular form; so that 3 of them always rest upon the ground, and the 4th stands upwards in a perpendicular direction. Each point is 3 or 4 inches long. They are scattered over the ground and passages where the enemy is expected to march, especially the cavalry, in order to embarrass their progress.

CAMP. With some trifing variations, camps are formed after the same manner.
in all countries. This principle seems general, that there should not be more ground occupied by the camp of a body of men, in front, than the extent of their line when drawn in order of battle.

Intervals are however generally left between battalions of infantry of about one eighth their front, and between squadrons of cavalry of thirty or forty paces. An army is sometimes encamped in two lines, and sometimes in three; the distance between the lines varies according to the face of the country, from 200 to 600 yards, or more.

In the distribution of the front of a camp, two feet are generally allowed for every file of infantry, and three feet for each file of cavalry. When the ground will admit of it, the infantry are usually arranged in rows perpendicular to the front; each row containing the tents of one company; and the cavalry in the same position, each perpendicular row containing the horses of a troop.

The grenadiers and light infantry are usually placed in single rows on the flanks, and the battalion companies in double rows.

A single row, or one company, occupies in front, nine feet; and a double row, or two companies, twenty-one feet, if formed of the old pattern rectangular tents, which hold only five men each. But if the new bell tents are used, 15 feet must be allowed for a single row, and 30 feet for a double row in front.

In the cavalry, a row or troop occupies in front as follows:

<table>
<thead>
<tr>
<th>Tent</th>
<th>Old Tents</th>
<th>New Tents</th>
</tr>
</thead>
<tbody>
<tr>
<td>From the front pole</td>
<td>3 yards</td>
<td>5 yards</td>
</tr>
<tr>
<td>Of the tent</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Picket rope</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>For the horse</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

... and so on.

The breadth of a row in front, whether of infantry or cavalry, being multiplied by the number of rows, and the product subtracted from the whole extent of front for a battalion of infantry, or a squadron of cavalry, will leave the space for the streets, which are generally divided as follows:

For the infantry, 50 feet each.

For the cavalry, 30 feet each between the tents.

For the cavalry, 40 feet each between the horses.

The following is the distribution of the depth of a camp of infantry or cavalry, when the ground permits.

**Distribution of the Depth of a Camp.**

<table>
<thead>
<tr>
<th>Tent</th>
<th>Yards</th>
</tr>
</thead>
<tbody>
<tr>
<td>From the quarter guard parade to the line of parade of battalion</td>
<td>62</td>
</tr>
</tbody>
</table>

**Distribution of the Depth of a Camp.**

<table>
<thead>
<tr>
<th>Tent</th>
<th>Yards</th>
</tr>
</thead>
<tbody>
<tr>
<td>From this first line of parade to the front sergeant's tent</td>
<td>16</td>
</tr>
<tr>
<td>of the 4 quarter master's tent</td>
<td>15</td>
</tr>
<tr>
<td>N.B. These tents open to the front.</td>
<td></td>
</tr>
<tr>
<td>To the first picket of horses</td>
<td>5</td>
</tr>
<tr>
<td>Infantry, for every tent in depth</td>
<td></td>
</tr>
<tr>
<td>Old pattern</td>
<td>9 feet</td>
</tr>
<tr>
<td>New pattern</td>
<td>15 feet</td>
</tr>
<tr>
<td>Cavalry, for every horse</td>
<td>3 feet</td>
</tr>
<tr>
<td>The soldiers tents for the infantry open to the streets.</td>
<td></td>
</tr>
<tr>
<td>The cavalry tents from the horses heads.</td>
<td></td>
</tr>
<tr>
<td>Supposed cavalry 12 tents</td>
<td></td>
</tr>
<tr>
<td>Deep old pattern</td>
<td>36</td>
</tr>
<tr>
<td>Suppose cavalry, 60 horses,</td>
<td></td>
</tr>
<tr>
<td>Old pattern</td>
<td></td>
</tr>
<tr>
<td>From the last tent of infantry, or the last horse of the cavalry, to the front of the subalterns' tents</td>
<td>15</td>
</tr>
<tr>
<td>Their tents open to the rear.</td>
<td></td>
</tr>
<tr>
<td>To the front of the line of captains</td>
<td>15</td>
</tr>
<tr>
<td>These open to the front. The captains and subalterns in the rear of their troops or companies.</td>
<td></td>
</tr>
<tr>
<td>To the front of the field officers</td>
<td>15</td>
</tr>
<tr>
<td>Open to the front, opposite the outside street of the battalion.</td>
<td></td>
</tr>
<tr>
<td>To the colonel's tent</td>
<td>10</td>
</tr>
<tr>
<td>Open to the front, opposite the main street of the battalion.</td>
<td></td>
</tr>
<tr>
<td>To the staff officers</td>
<td>10</td>
</tr>
<tr>
<td>Open up the streets next the main street.</td>
<td></td>
</tr>
<tr>
<td>To the first row of battery's tent</td>
<td>10</td>
</tr>
<tr>
<td>The battery's tents from their horses.</td>
<td></td>
</tr>
<tr>
<td>To the first row of pickets for bat horses</td>
<td>2</td>
</tr>
<tr>
<td>To the second row of dito</td>
<td>10</td>
</tr>
<tr>
<td>To the second row of battery</td>
<td>2</td>
</tr>
<tr>
<td>To the front of the grand sullen's tent</td>
<td>10</td>
</tr>
<tr>
<td>The grand sullen is in the rear of the colonel.</td>
<td></td>
</tr>
<tr>
<td>To the centre of the kitchens</td>
<td>15</td>
</tr>
<tr>
<td>The kitchens are 15 feet in diameter.</td>
<td></td>
</tr>
<tr>
<td>To the front of the petty sullens</td>
<td>15</td>
</tr>
<tr>
<td>Directly in the rear of the kitchens there are allowed 6 yards in front by 8 deep.</td>
<td></td>
</tr>
<tr>
<td>To the rear guard</td>
<td>15</td>
</tr>
<tr>
<td>Opens to the rear.</td>
<td></td>
</tr>
</tbody>
</table>

**Total depth required—Yards** 253

If the ground on which the camp is to be formed will not, from a swamp in the rear, or any other circumstance, admit of each troop or company being formed in one row perpendicular to the front; the distribution of the front of a battalion or
squadron must be more contracted than the above, and laid out as follows: Find how many perpendicular rows will be required, by dividing the number of men in the battalion or squadron by the number the ground will admit of in one row; then the number of rows being multiplied by the breadth of one in front, will give what part of the front to be occupied by the rows; and the difference between it and the whole front allowed for the battalion or squadron, will be left for the streets; which, if the streets are to be equal, must be divided by their number, to find a breadth of each; or is otherwise easily divided into streets of unequal breadths. When two guns are attached to a battalion, they are posted on the right in the following order: From the right of the gunner's tents to the centre of the first gun, four yards—from this to the second gun, 6 yards.—The muzzles of the guns in a line with the serjeants' tents.

The subaltern of artillery, if any, in a line with the subalterns of infantry.——The rear of the gunner's tents in a line with the rear of the battalion tents.

For the proper positions for camps, see the word Reconnoiting; and for the encampment of a park of artillery, see the word Park.

CAMP, in military affairs, is the whole extent of ground, in general, occupied by an army pitching its tents when in the field, and upon which all its baggage and apparatus are lodged. It is marked out by the quarter-master-general, who allot every regiment its ground. The extent of the front of a regiment of infantry is 225 yards, including the two battalion guns, and depth 520, when the regiment contains 9 companies, each of 100 private men, and the companies tents in two rows; but when the companies tents stand in one row, and but 70 private men to each is, the front is then but 155 yards. A squadron of horse has 120 yards in front, and 100 for an interval between each regiment.

The nature of the ground must also be consulted, both for defence against the enemy, and for supplies to the army. It should have a communication with that army's garrisons, and have plenty of water, forage, fuel, and other rivers, marshes, hills, or woods to cover it. At an army always encamps fronting the enemy, and generally in two parallel lines, besides a corps de reserve, about 500 yards distant from each other; the horse and dragoons on the wings, and the foot in the centre. Where, and how the train of artillery is encamped, see Park of artillery, and Encampment of a regiment of artillery, under the word ARTILLERY. Each regiment posts a subaltern's guard at 80 yards from the colors to the officers tent, called the quarrel guard, besides a corporal's guard in the rear, and each regiment of horse or dragoons, a small guard on foot, called the standard-guard, at the same distance. The grand guard of the army consists of horse, and is posted about a mile distant towards the enemy's lines.

In a siege, the camp is placed all along the line of circumvallation, or rather in the rear of the approaches, out of cannon shot: the army faces the circumvallation, if there be any; that is, the soldiers have the town in their rear.

One thing very essential in the establishing a camp, and which should be particularly attended to, is that the enemy should not only have a commodious spot of ground at the head of the camp, when the army, in case of surprise, may in a moment be under arms, and in condition to repulse the enemy: but also a convenient field of battle at a small distance, and of a sufficient extent for them to form advantageously, and to move with facility.

The arrangement of the tents in camp, is nearly the same all over Europe, which is, to dispose them in such a manner, that the troops may form with safety and expedition.

To answer this end, the troops are encamped in the same order as that in which they are to engage, which is by battalions and squadrons; hence, the post of each battalion and squadron in the line of battle, must necessarily be at the head of its own encampment. Gustavus Adolphus, King of Sweden, was the first who formed his encampments according to the order of battle.

By this disposition, the extent of the camp from right to left, of each battalion and squadron, will be equal to the front of each in line of battle; and consequently, the extent from right to left of the whole camp, should be equal to the front of the whole army when drawn up in line or battle, with the same intervals between the several encampments of the battalions and squadrons, as are in the line.

There is no fixed rule for the intervals: some will have no intervals, some small ones, and others are for intervals equal to the front of the battalion or squadron. The most general method is an interval of 50 feet between each battalion, and of 30 feet between each squadron.

Hence it follows, 1st, That the front line of the camp must be in a direction to face the enemy; 2dly, That at the head of the encampment of each battalion and squadron, there must be a clear space of ground, on which they may form in line of battle; and 3dly, That when the space taken up by the army is embarrassed with woods, ditches, and other obstructions, a communication must be opened for the troops to move with ease to the assistance of each other.

The camps of the Greeks and Romans were either round, square, or oval, rather of an oblong square figure, with the sharp corners taken off, and to secure them against surprises, it was the prevailing custom to surround them with...
intrrenchments. The camps of the Anglo-
Saxons and Danes were generally round, as likewise those of the Anglo-Normans. The camps of the ancient Britons were of a oval form, composed of stakes, earth, and stones, rudely heaped together: but the practice of the present times is quite different, for the security of our camps, whose form is a rectangle, consists in being able to draw out the troops with ease and expedition at the head of their respective encampments.

Camp of a battalion of infantry, is the ground on which they pitch their tents, &c.

The principal object in the arrangement of a camp is, that both officers and men may repair with facility and expedition to the head of the line; for which reason the tents are placed in rows perpendicular to the front of the camp, with spaces between them, called streets. The general method is, to form as many rows of tents as there are companies in the battalion; those for the private men in the front, and those for the officers in the rear. In the British service the several companies of a battalion are posted in camp, in the same manner as in the line of battle; that is, the company of grenadiers on the right, and that of light-infantery on the left; the colonel's company on the left of the grenadiers, the lieutenant-colonel's on the right of the light-infantery, the major's on the left of the colonel's, the lieutenants on the right of the lieutenant-colonel's; and so on from right to left, till the two youngest companies come into the centre.

The battalion companies are posted two by two; that is, the tents of every two of these companies are ranged close together, to obtain, though they be fewer in number, larger and more commodious streets: the entrances of all the companies tents face the streets, except the first tent of each row belonging to the sergeants, which faces the front of the camp.

The number of tents in each perpendicular row, is regulated by the strength of the companies, and the number of men allowed to each tent, which is 5 men to 7 men; thence it follows, that a company of 60 men will require 9 to 12 tents; a company of 75 men 11 to 15 tents, and a company of 100 men 15 to 20 tents; but as it always happens, that some are on duty, fewer tents may serve in time of necessity.

When the battalion is in the first line of encampment, the privies are opened in tents, and at least 300 feet beyond the quarter-guard; and when in the second line, they are opened in the rear of that line.

To distinguish the regiments, camp colors are fixed at the ranks, and at the quarter and rear guard.

The colors and drums of each battalion are placed at the head of its own grand street, in a line with the bells of arms of the several companies. The officers' espontees were formerly placed at the colors, with the broad part of their spears to the front. The sergeants' halberds were placed between, and on each side of the bells of arms, with their hatchets turned from the front.

When two field-pieces are allowed to each battalion, they are posted to the right of it. Gustavus Adolphus, king of Sweden, was the first who ordered two field-pieces to each battalion, which are generally light 6 pounders.

Distribution of the front and depth of the camp for a battalion of infantry. The present mode of encampments differs from what was formerly adopted. The front of the camp for a battalion of 10 companies of 60 men each, is at present 400 feet, and during the late wars only 360 feet; the depth at present 759 feet, and during the late war 595. The front of the camp of a battalion of 10 companies of 100 men each, is at present 658 feet, and formerly only 592. The breadth of the streets from 45 to 55 feet, excepting the main street, which is sometimes from 60 to 90 feet broad.

Of the camp of a battalion by a new method. This is, by placing the tents in 3 rows parallel to the principal front of the camp: which is suitable to the 3 ranks in which the battalion is drawn up: the tents of the first row, which front the camp, are for the men of the front rank; the tents of the second row front the rear, and are for the men of the second rank; and the tents of the third row, which front the centre row, are for the men of the rear rank.

Camp of cavalry. The tents for the cavalry, as well as for the infantry, are placed in rows perpendicular to the principal front of the camp; and their number is conformable to the number of troops. The horses of each troop are placed in a line parallel to the tents, with their heads towards them.

The number of tents in each row, is regulated by the strength of the troops, and the number of troopers allotted to each tent is 5 ; it follows, that a troop of 50 men will require 6 tents, a troop of 60 men 10 tents, and a troop of 100 men 20 tents. The tents for the cavalry are of the same form as those of the infantry but more spacious, the better to contain the fire-arms, accoutrements, saddles, bridles, boots, &c. See Tents.

Distribution of the front and depth of a camp of cavalry. Supposing the regiment to consist of 2 squadrons, of 3 troops each, and of 50 men in each troop, the extent of the front will be 450 feet, if drawn up in 3 ranks; but if drawn up in 3 ranks and in 595, the front will be 450 feet, the depth 220, and the breadth of the back streets 40 feet, and the other streets 45 feet each. In the last war 600 feet were allowed each regiment of cavalry in
front, 774 feet for the depth, and the breadth of the streets as above.

The standard-guard tents are pitched in the centre, in a line with the quarter-master's. The camp colors of the cavalry are also of the same color as the quarters of the regiment, with the rank of the regiment in the centre: those of the horse are square, like those of the foot; and those of the dragoons are swallow-tailed. The dung of each troop is laid up behind the horses.

The ordinary guards consist in guards, both ordinary and extraordinary: the ordinary guards are relieved regularly at a certain hour every day (generally about 9 or 10 o'clock in the morning.) The extraordinary guards are all kinds of detachments commanded on particular occasions for the further security of the camp, for covering the foragers, for convoys, escorts, or expeditions.

The ordinary guards are distinguished into grand guards, standard, and quarter guards; rear guards, picket guards, and guards for the general officers; train of artillery, bread waggons, pay-master general, quarter-master general, majors of brigade, judge advocate, and provost marshal.

The number and strength of the grand guards and out-posts, whether of cavalry or infantry, depend on the situation of the camp, nature of the country, and the post of the enemy. The strength of general officers guards is limited.

Camp maxim, are 1. The principal rule in forming a camp is to give it the same front the troops occupy in order of battle.

2. The method of encamping is by battalions and squadrons, except the several corps of artillery, which are encamped on the right and left of the park of artillery. See Artillery Park, and Encampment of a regiment of artillery.

3. Each man is allowed 2 feet in the ranks of the battalion, and 3 feet in the squadron; hence the front of a battalion of 500 men, formed 3 deep, will be 334 feet; and the front of a squadron of 150 men, formed 2 deep, will be 315 feet.

4. The depth of the camp when the army is encamped in 3 lines, is at least 3750 feet; that is, 750 feet for the depth of each line, and 250 feet for the space between each of those lines.

5. The park of artillery should always be placed on a dry rising ground, if any such situation offers; either in the centre of the front line, or in the rear of the second line: with all the train horses encamped in the rear of the park.

6. The bread-waggons should be stationed in the rear of the camp, and as near as possible to the centre, that the distribution of the bread may be rendered easy.

7. When the commander in chief encamps, it is generally in the centre of the army; and the town or village chosen for his residence is called head quarters.

8. That general is inexciusable, who, for his own personal accommodation, makes choice of quarters that are not properly secured, or at too great a distance to have an easy communication with the camp.

9. If the ground permits, the troops should be encamped as near to good water as possible.

10. When there are horse or rifle corps, they are generally posted near the head quarters, or in the front of the army.

11. The ground taken up by the encampment of an army, should be equally distributed, and, if possible, in a straight line; for then the whole will have more room: for a crooked line, and an inequality of disposition, afford a very unpleasing view both of the camp, and of the troops when they are under arms.

12. Cleanliness is essentially necessary to the health of a camp, especially when it is to remain for any length of time. To maintain this, the privies should be often filled up, and others opened; at least every 6 days. The oil of castor, and the carcasses of dead horses, should be buried very deep: and all kinds of corrupt effluvia, that may infect the air and produce epidemical disorders, should be constantly removed.

Choice of Camps: 1. At the beginning of a campaign, when the enemy is at too great a distance tooccasion any alarm, all situations for camps that are healthy are good, provided the troops have room, and are within reach of water, wood, and provisions. More ground should be allowed to the troops in camps of duration, than in temporary ones.

2. Camps should be situated as near as possible to navigable rivers, to facilitate the conveyance of all manner of supplies; for convenience and safety are the principal objects for camps.

3. A camp should never be placed too near heights, from whence the enemy may over look it; nor too near woods, from whence the enemy may surprise it. If there are eminences, not commanded by others, they should be taken into the camp; and when that cannot be done, they should be forti ed.

4. The choice of a camp depends in a great measure on the position of the enemy, on his strength, and on the nature and situation of the country.

5. A skilful general will avail himself of all the advantages for a camp, which nature may present, whether in plains, mountains, ravines, hollows, woods, lakes, inclosures, rivers, rivulets, etc.

6. The disposition of the troops in camp should depend on the nature and situation of the ground: as there are occasions which require all the infantry to encamp on the right, and the cavalry on the left; and there are others which re-
quire the cavalry to form in the centre, and the infantry on the wings. 7. A camp should never be formed on the banks of a river, without the space of at least 2 or 300 feet, for drawing out the army in order of battle; the the enemy cannot then easily alarm the camp, by artillery and small arms from the other side. 8. Camps should never be situated near rivers that are subject to be overflowed, either by the melting of the snow, or by accidental torrents from the mountains. Marshy grounds should also be avoided, on account of the vapors arising from stagnant water, which infect the air.

9. On the choice of camps and posts, frequently depends the success of a campaign, or even sometimes of a war. Camp guards. They are of two sorts; the one serves to maintain good order within the camp; and the other, which is stationed without the camp, serves to cover and secure it against the enemy. These guards are formed of both infantry and cavalry; and in proportion to the strength of the army, situations of the camp, and disposition of the enemy. Sometimes it is required, that these guards should consist of the 5th part of the army; or (as is generally the case) of the 4th part; and when an attack from the enemy is apprehended, even of the half. Measures concerning the camp guards. It is of the utmost consequence to station the guards in such places, as may enable them to discover easily whatever approaches the camp. 2. The guards of the cavalry are generally stationed further from the camp, than those of the infantry; but never at so great a distance, as to endanger their being cut off; within command of a very good distance. They are often stationed in highways, in open places, and on small heights; but, when near the enemy, they should never be at too great a distance from their detachment; probably, about 50 or 60 paces will be sufficient. 4. The guards of infantry have different objects, and are differently stationed; their duty is, to receive and support the guards of cavalry in cases of need; to protect the troops sent out for forage, or water, in short to prevent any approaches from the small parties of the enemy. Some are stationed in the villages, in barns, houses, and in passages and avenues of woods; others are stationed on the borders of rivulets, and in every place necessary to secure the camp. Guards that are stationed in churches, in woods or among trees, barns, and houses, should if possible, be seen from the army, or at least from some grand guard in its neighborhood, that signals may be easily perceived and repeated. 5. The guards of infantry are generally fixed; that is, they have the same post both day and night, except such as are to support and protect the guards of cavalry, and to cover the forage grounds. All out-guards should have intrenching-tools with them. 6. The guards of cavalry have generally a day-post and a night-post: the latter is seldom more than 4 or 500 paces from the camp; one third should be mounted, one third bridled, and one third feeding their horses; but when near the enemy, the whole guard should be kept mounted during the night. 7. The security and tranquillity of a camp, depending upon the vigilance of the guards, the officers who command them cannot be too active in preventing surprise: for neglect in this particular is often of fatal consequence. Though an officer should, at all times, be strictly attentive to every part of the service, yet he should be more particularly watchful in the night than in the day. The night is the time most favorable for surprises: as those who are out on duty, are generally asleep, and cannot immediately afford assistance; but in the day time, the attention of all the troops is turned to the movements of the enemy: they are sooner under arms, sooner in readiness to march, and in much less danger of being thrown into confusion. Those who wish to be better acquainted with the nature and mode of encampments, may read Mr. Lach's usual Essay on Encampment. Concerning the healthiness of the different seasons of a campaign, the ingenious Dr. Pringle has the following observations. The first 3 weeks is always sickly; after which the sickness decreases, and the men enjoy a tolerable degree of health throughout the summer, unless they get wet clothes. The most sickly part of the campaign is towards the end of August, whilst the days are still hot, but the nights cold and damp with fog. The first 14 days of a campaign, are attended with more sickness than the two first months of the encampment. As to winter expeditions, though severe in appearance, he tells us, they are attended with little sickness, if the men have strong and good shoes, warm quarters, fuel, and provisions enough.
CAMP, years: the campaign will begin, and the chance the fast return the regiment in a new encampment. They iron or copper, These pieces were made of London, two at Woolwich, or, one in Rome, made of the nails that lasted are said to be seen, viz. one in the lower pounder in the castle of St. Angelo at

called among the Romans from the God

campaign, in military affairs, the domestic foes.

The word is also used for an open country

where the persons from different nations who come to trade with them, usually reside.

CAMPUS Martius, an anniversary assembly which was observed by ancient pagans on May-day, when they mutually pledged themselves to one another for the defence of the country against foreign and domestic foes.

CAMPUS Martius, a public place so called among the Romans from the Gods Mars.

CAMPAIGN, in military affairs, the time of the day that an army continues in the field, in war time. We also say, a man has served so many campaigns, i.e. 6 years: the campaign will begin at such a time; this is a long campaign.

The word is also used for an open country before any towns, &c.

CANNIERS. See Callipers.

CANNON or Pieces of Ordnance, in the military art, imply machines having tubes of brass or iron. They are charged with powder and ball, or sometimes cartridges, grape and canister shot, &c.

The length is distinguished by three parts; the first reinforce, the second reinforce, and the chance: the first reinforce is 2-7ths, and the second 1-7th and 1-half of the diameter of the shot. The inside hollow, wherein the powder and shot are lodged, is called the bore, &c.

History of Cannon or Pieces of Ordnance. They were originally made of iron bars soldered together and fortified with strong iron hoops; some of which are still to be seen, viz. one in the tower of London, two at Woolwich, one in the royal arsenal at Lisbon, they are numerous in all parts of Asia; and Baron Tott describes them in Turkey. Others were made of thin sheets of iron rolled up together, and hooped; and on emergencies they were made of leather, with plates of iron or copper. These pieces were made in a rude and imperfect manner, like the first essays of many new inventions. Stone balls were thrown out of these cannon, and a small quantity of powder used on account of their weakness. These pieces have no ornaments, are placed on their carriages by rings, and are of cylindrical form. When or by whom they were made, is uncertain; however we read of cannon being used as early as the 13th century, in a sea engagement between the king of Tunis and the Moorish khan of Seville. The Venetians used cannon at the siege of Claudia Jесса, now called Chioggia, in 1356, which were brought thither by two Germans, with some powder and leaden balls; as likewise in their wars with the Genoese in 1369. Edward III. of England made use of cannon at the battle of Cressy in 1346, and at the siege of Calais in 1347. Cannon were made use of by the Turks at the siege of Constantinople, then in possession of the Christians, in 1354, or in that of 1452, that threw a weight of 500 lb but they generally burst, either the first, second, or third shot. Louis XII. had one cast at Tours, of the same size, which threw a ball from the Bastille to Charenton. One of those famous cannon was taken at the siege of Diu in 1562, by Don John de Castro, and is in the castle of St. Julian da Barra, 10 miles from Lisbon: its length is 20 feet 7 inches, diameter at the centre 6 feet 3 inches, and discharges a ball of 100 lb. It has neither dolphins, rings, nor butts, is of a curious kind of metal, and has a large Hindustane inscription upon it, which says it was cast in 1400.

Ancient and present names of Cannon. Formerly they were distinguished by uncommon numbers; i.e. in 1353, Louis XII. had 12 brass cannon cast, of an uncommon size, called after the names of the 12 peers of France. The Spanish and Portuguese called them after their saints. The emperor Charles V., when he marched before Tunis, founded the 12 Apostles. At Milan there is a 70 pounder, called the Pimontelle; and one at Bois-le-Duc, called the devil. A 60-pounder in the tower of London (formerly in Sterling castle) called Mounts-mes. An 80-pounder in the royal arsenal at Berlin, called the Thunderer. An 80-pounder at Malaga, called the Terrible. Two curious 60-pounders in the arsenal at Br. men, called the Messengers of bad news. And lastly an uncommon 70-pounder in the castle of St. Angelo at Rome, made of the nails that fastened the copper plates which covered the ancient Pantheon, with this inscription upon it: Ex ovis trabularum porticus Agrisae.
In the beginning of the 15th century these uncommon names were generally abolished, and the following more universal one took place, viz.

<table>
<thead>
<tr>
<th>Cannon royal, or car.</th>
<th>Pounds</th>
<th>Cwt.</th>
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<tr>
<td>thoun</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>Bastard cannon, or 4</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>carthound</td>
<td>24</td>
<td>1.5</td>
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<tr>
<td>Whole culverins</td>
<td>18</td>
<td>1.25</td>
</tr>
<tr>
<td>Elerculverins</td>
<td>9</td>
<td>0.75</td>
</tr>
<tr>
<td>Falcon</td>
<td>6</td>
<td>0.5</td>
</tr>
<tr>
<td>lowest sort</td>
<td>6</td>
<td>0.5</td>
</tr>
<tr>
<td>Saker ordinary</td>
<td>5</td>
<td>0.4</td>
</tr>
<tr>
<td>largest size</td>
<td>8</td>
<td>0.6</td>
</tr>
<tr>
<td>Basilisk</td>
<td>48</td>
<td>3.5</td>
</tr>
<tr>
<td>Serpentine</td>
<td>4</td>
<td>0.3</td>
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<tr>
<td>Aspik</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>Dragon</td>
<td>6</td>
<td>0.5</td>
</tr>
<tr>
<td>Syren</td>
<td>65</td>
<td>5</td>
</tr>
</tbody>
</table>

Falconet = 1 15, 10, 5.

The 50, which carried a ball of 20 or 22 ounces, &c.

Rabbin, which carried a ball of 15 ounces.

These curious names of beasts and birds of prey were adopted, on account of their swiftness in motion, or of their cruelty; as the falcons, falcon, saker, and culverin, &c. for their swiftness in flying; the basilisk, serpent, aspik, dragon, syren, &c. for their cruelty. See the Latin poet Forscastarius.

At present cannon or pieces of ordnance take their names from the weight of the ball they discharge; thus a piece that discharges a ball of 34 pounds, is called a 34 pounder; one that carries a ball of 12 pounds, is called a 12-pounder; and so of the rest, divided into the following sorts, viz.

Ship-guns, consisting of 42, 33, 24, 18, 12, 9, 6, and 3 pounders.

Battering-guns, of 24, 18, and 12 pounders.

Field-pieces, of 18, 12, 9, 6, 3, 2, 14, and 8 pounders.

The British seldom use any of lower calibers than 6 in the field.

The metal of which brass cannon is made, is in a manner kept a secret by the founders; yet, with all their art and secrecy, they have not hitherto found out a composition that will stand a hot engagement without melting, or at least being rendered useless. Those cast at Woolwich bid fair towards this amendment.

The respective quantities which should enter into this composition, are a point not decided; every founder has his own proportions, which are peculiar to himself. The most common proportions of the ingredients are the following, viz.

To 1 sack of metal fit for casting, they put 58 lb. of copper, 52 lb. of brass, and 5 lb. of tin. To 400 lb. of metal fit for casting, the Germans put 36 lb. of copper, 13 lb. of brass, and 3 lb. of tin.

With respect to iron guns, their structure is the same as that of the others, and they generally stand the most severe engagements, being frequently used on shipboard. Several experiments have taught that the Swedish iron guns are preferable to all others in Europe.

Cannon is now generally cast solid, and the cavity bored afterwards by a very curious machine for that purpose, where the gun is placed in a perpendicular position; but of late these machines have been made to bore horizontally, and much truer than those that bore in a vertical form. This new machine was first invented at Strasburg, and greatly improved by Mr. Verbruggen, a Dutchman, who was head founder at Woolwich, where probably the best horizontal boring machine in Europe has been lately fixed; it both bores the inside, and turns and polishes the outside at once. For length and weight of French and English cannon see Guns.

Names of the several parts of a cannon.

The grand divisions exterior, are as follows, viz.

First re-inforce, is that part of a gun next the breech, which is made stronger, to resist the force of powder.

Second re-inforce. This begins where the first ends, and is made something smaller than the first.

The obus, is the whole space from the trunnions to the muzzle.

The muzzle, properly so called, is the part from the muzzle astragal to the end of the piece.

Small divisions exterior.

The casable, the hindermost part of the breech, from the base-ring to the end of the button.

The casable-astragal, is the diminishing part between the two breech mouldings.

The neck of the casable, is the narrow space between the breech moulding and the button.

The breech, is the solid piece of metal behind, between the vent and the extremity of the base-ring, and which terminates the hind part of the gun, exclusive of the casable.

The breech-mouldings, are the eminent parts, as squares or rounds, which serve only for ornaments to the piece, &c.

The base-ring and oge, are ornamental mouldings; the latter is always in the shape of an S, taken from civil architecture, and used in guns, mortars, and howitzers.

The vent-field, is the part from the vent to the first re-inforce astragal.

The vent-astragal and fillets, are the mouldings and fillets at or near the vent.
The charging cylinder, is all the space from the chase-astragal to the muzzle-astragal.

The first re-inforce ring and ogee, is the ornament on the second re-inforce.

The first re-inforce astragal, is the ornament between the first and second reinforce.

The chase-girdle, is the ornament close to the trunnions.

The trunnions, are two solid cylindrical pieces of metal on every gun, which project from the piece, and by which it is supported upon its carriage as an axis.

The dolphin, are the two handles, placed on the second re-inforce ring of brass guns, resembling the fish of that name: they serve for mounting and dismounting the guns.

The second re-inforce ring and ogee, are the two ornaments joining the trunnions.

The second re-inforce astragal, is the moulding nearest the trunnions.

The chase-astragal and jilleu, are the two last-mentioned ornaments jointly.

The muzzle-astragal and fillets, the joint ornaments nearest the muzzle.

The muzzle-mouldings, the ornaments at the very muzzle of the piece.

The second reinforce ring and ogee, are the two handles, pla-

The mouth, or entrance of the bore, is that part where both powder and ball are put in, or the hollow part which receives the charge.

The vent, in all kinds of fire-arms, is commonly called the touch-hole; it is a small hole pierced at the end, or near it, of the bore or chamber, to prime the piece with powder, or to introduce the tube, in order, when lighted, to set fire to the charge.

The chamber, which is only in large calibers, is the place where the powder is lodged, which forms the charge.

Tools for loading and string Cannon, are rammers, sponges, ladles, worms, hand-spikes, wedges, and screws.

Coins, or Wedges, to lay under the breech of the gun, in order to elevate or depress it.

Hand-spikes, to serve to move and to lay the gun.

Ladies, serve to load the gun with loose powder.

Rammers, are cylinders of wood, whose diameter and axis are equal to those of the shot: they serve to ram home the wads put upon the powder and shot.

Sponge, is fixed at the opposite end of the rammer, covered with lamb-skin, and serves to clean the gun when fired.

Screezes, are used to field-pieces, instead of coins, by which the gun is kept to the same elevation.

Tools necessary for proving Cannon, are, a searcher with a reliever, and a searcher with one point.

Searcher, is an iron, hollow at one end to receive a wooden handle, and on the other end has from four to eight flat springs of about eight or ten inches long, pointed and turned outwards at the ends.

The reliever, is an iron flat ring, with a wooden handle, at right angles to it. When a gun is to be searched after it has been fired, the searcher is introduced; and turned every way, from end to end, and if there is any hole, the point of one or other of the springs gets into it, and remains till the reliever, passing round the handle of the searcher, and pressing the springs together, relieves it.

When there is any hole or roughness in the gun, the distance from the mouth is marked on the outside with chalk.

The other searcher has also a wooden handle, and a point at the fore end, about an inch long, at right angles to the length: about this point is put some wax, mixed with tallow, which, when introduced into the hole or cavity, is pressed in, when the impression upon the wax gives the depth, and the length is known by the motion of the searcher backwards and forward: if the fissure be one ninth of an inch deep, the gun is rejected. See Instruments.

N. B. The strength of gunpowder having been considerably increased by Col. Congreve, of the British Artillery, the quantity for service has been somewhat reduced. That for proof remaining as heretofore.

CANNON'S Ball. See Ball.

CANNONIER, a person who manages a gun. See Gunner.

CANNON-Baskets. See Garisons.

CANNONADE, in artillery, may be defined the application of artillery to the purposes of a land war, or the direction of its efforts against some distant object intended to be seized or destroyed, as the troops in battle, battery, fortress, or outwork.

Cannonading is therefore used from a battery, to take, destroy, burn, or drive the enemy from the defences, &c. and to batter and ruin the works or fortified towns.

CANNON-Bite, that part of the bit which is let into the horse's mouth.

CANTEENS, in military articles, are tin vessels used by the soldiers on a march, &c. to carry water or other liquor in, each holds about 2 quarts.

CANTONMENTS are distinct situations, where the different parts of an army lie as near to each other as possible, and in the same manner as they encamp in the field. The chief reasons for commanding an army are, first, when the campaign begins early; on which occasion, in cantonning your troops, two objects demand attention, viz. the military object, and that of subsistence: the second is, when
an army has finished a siege early, the troops are allowed to repose till the fields produce forage for their subsistence: the third reason is, when the autumn proves rainy, and forage scarce, the troops are cantoned to protect them from the bad weather.

**Canvas Bags.** See Bags, Sandbags, &c.

**Capitaine**, under this term is included the private, sarge, and housing, of a military horse.

**Capitaine en pied,** Fr. an officer who is in actual pay and does duty.

**Capitaine retraité,** Fr. a reduced officer.

**Capitaine général des vues,** Fr. the officer who has the chief management and superintendence of military stores and provisions.

**Capitaine des ports,** Fr. a commissioned officer who resides in a garrison town, and whose sole duty is to receive the keys of the gates from the governor every morning, and to deliver them to him every night, at appointed hours.

**Capital,** in fortification, is an imaginary line which divides any work into two equal and similar parts. It signifies also, a line drawn from the angle of a parapet, on to the point of the bastion, or from the point of the bastion to the middle of the gorges.

**To capitulate,** to surrender any place or body of troops to the enemy, on certain stipulated conditions.

**Capitulation,** in military affairs, implies the conditions on which the garrison of a place besiegéd agrees to deliver it up, &c. This is likewise the last action, both in the attack and defence of a fortification, the conditions of which may be of various kinds, according to the different circumstances or situations in which the parties may be placed.

As soon as the capitulation is agreed on, and signed, hostages are generally delivered on both sides, for the exact performance of the articles; part of the place is delivered to the besiegers, and a day appointed for the garrison to evacuate the place. The usual and most honorable conditions are, with arms and baggage, drums beating and colors flying, matches lighted, and some pieces of artillery, wagons, and convey for the baggage, sick and wounded, &c.

**Caponnier,** in fortification, is a passage made from one work to another, of 10 or 12 feet wide, and about five feet deep, covered on each side by a parapet, terminating in a glacis. Caponniers are sometimes covered with planks and earth. See **Fortification**.

**Caps,** in gunnery, are pieces of leather, or more commonly sheep-skins, to cover the mouth of mortars when loaded, till they are fired, to prevent damp, or rain getting in.

**Captains.** See **Carriages**.

**Captain,** in military antiquity, implies being clothed in armor from head to foot.

**Captain,** in military machines, signifies a strong massive piece of timber, having its upper part, called the drum-head, pierced with a number of square holes, for receiving the levers. By turning it round, several actions may be performed that require an extraordinary power.

**Captain,** a military officer, who is commander of a troop of cavalry, or of a company of foot or artillery. The name of captain was the first term made use of to express the chief or head (capit) of a company, troop, or body of men. He is both to march and fight at the head of his company. A captain of artillery and engineers ought to be master of the attack and defence of fortified places, and captains of infantry or cavalry should acquire some knowledge of those branches; artillery officers should be good mathematicians, and understand the raising of all kinds of batteries, to open the trenches, to conduct the cap, to make mines and fortifications, and to calculate their charges. They ought further to be well acquainted with the power of artillery, the doctrine of the military projectiles, and the laws of motion, together with the system of mechanics; and should be good draughtsmen.

A captain has in most services the power of appointing his own serjeants and corporals, and may by his own authority reduce or break them; but he cannot punish a soldier with death, unless he revolts against him on duty.

The captains of artillery in the Prussian service, rank as majors in the army, and have an extraordinary pay, on account of the great qualifications demanded of them; and the captains of bombardiers, miners, and artificers, in the Portuguese service, have 9 dollars a month more than the captains of artillery in the same regiment.

**Captain-General.** The king is captain-general of all the forces of Great Britain. This term implies the first rank, power, and authority in the British army. This power was delegated to the Duke of York, in 1769.

**Captain-Lieutenant,** the commanding officer of the colonel's troop or company in the British army, in case the colonel is absent, or he gives up the command of it to him. He takes rank as full captain, by an order in 1772, and by a late regulation, succeeds to the first vacant troop or company; the price of a captain-lieutenancy being the same as that of a captaincy. This title is still used in foreign services.

**Captain reformed,** one who, upon a reduction of the forces, on the termination of war, loses his company, yet keeps his rank and pay, whether on duty or not.

**Captain on half pay,** is one who loses his company on the reduction of an army,
and retires on half-pay, until seniority puts him into duty and full pay again.

CAPTAIN en second, or second captain, is one whose company has been broken, and who is joined to another, to serve under the captain of it.

In some armies the captain en second, is also a second captain to the same company, whose rank is above all the lieutenants, and below all the captains of the same corps.

CAPTURE de desertiers, Fr. Under the old government of France, a particular order existed, by which every intend­nant de province or commissaire de guerre was authorised to pay one hundred livres, or twenty dollars, to any person or persons who should apprehend and secure a deserter; and three hundred livres, or seventy dollars, for every man that could be proved to have enticed a soldier from the regular army or militia.

CAQUE de poudre, Fr. A term synonymous to a tun or barrel of powder.

CAR, in military cant, a kind of small carriage;妪jectively, used by the poets for a chariot: it is mounted on wheels, representing a stately throne, used in triumphs and on other solemn occasions.

CARABINERS, Fr. One complete regiment of carabiners was formed, during the monarchy of France, out of the different corps of cavalry. They were usually distin- guished from other bodies of troops, and it was their duty to charge the advanced posts of the enemy.

CARABINS, Fr. These were light­armed horsemen, who sometimes acted on foot. They were generally stationed in the out-posts, for the purpose of harass­ing the enemy, defending narrow passes, &c. In action, they usually fought in front of the dragoons, or upon the wings of the first line. Their name is derived from the Arabian word Karah, which signifies, generally, any warlike instrument.

CARAVAN; Caravanne, Fr. From a Turkish word, which signifies, a troop of travellers, who go armed by sea or land.

CARBINE, in military affairs, is a fire-arm somewhat smaller than the fire­lock of the infantry, and used by the cavalry. It carries a ball of 24 in the pound; its barrel is three feet long, and the whole length, including the stock, 4 feet.

Carabines are generally of the same dimensions with the above, and have their barrels rifled spirally from the breech to the mouth; so that when the ball, which is forced into it, is driven out again by the strength of the powder, it is lengthened about the breadth of a finger, and marked with the slit of the bore.

Fire-arms of this kind have a much greater range than any other, because the tube of the barrel gives a spira­l direction, instead of a rotary direction to the ball, which by that means makes the greater resistance at the first inflammation of the powder, giving time for the whole charge to take fire, before the ball is out of the bore. These arms are used by horse­riders, the chasseurs, or light infantry.

CARABINEERS, or Carabiners. All regiments of light armed horse were formerly called so; but since the establishing of hussars and chasseurs, they have lost that denomination; and now all the cavalry are called carabiners, who carry the carbine.

CARACOLE, a semi-circular motion or half-wheel; chiefly applied to that used either by individuals or squadrons of cavalry, to prevent an enemy from discovering where they intend to make their attack.

CARBON, charcoal. It is the name in the new chemistry given to every body which has the properties or qualities of the carbuncle acid or charcoal, prepared in certain degrees, bodies are called carbonates. See Accordance.

CARBONE. Pure charcoal is called carbone in the new chemical nomenclature. It is the black residuum of vegetables, which have suffered a complete decomposition of their volatile parts, by fire. Charcoal is black, brittle, porous, and light. It is placed among simple bodies, because no experiment has hitherto shown the possibility of decomposing it. It exists in the animal, vegetable, and mineral regions. When it is required to procure carbone in a state of great purity, it must be fried by strong ignition in a closed vessel.

CARBONIC ACID. Carbonaceous acid. Fixed air. Methiclic gas. Aerial acid. The name of carbonaceous acid appears to agree best with this substance, because it is contained in very large quantities in chalk; and there is no other body with which it has so strong an affinity, as with lime, which composes the base of this earthly salt. The carbonic acid possesses all the more obvious qualities of air, and exists in the atmosphere, of which it is a small part.

Atmospheric air. In 100 parts of atmo­spheric air there are 72 of azote, 27 of oxygen, and of carbonic acid.

CARASS or CARASS, a composition of combustibles. Carasses are of two sorts, oblong and round: the uncertain light of the first sort has almost rendered them useless. They are prepared in the following manner: boil 15 or 15 lb. of pitch in a glazed earthen pot; mix with that 1 lb. of tallow, 3 lb. of powder, 6 lb. of antiperite, and as many stopins as can be put in. Before the composition is cold, the carasse must be filled; to which, smear your hands with oil or tallow, and fill the carasse thin, full with the above composition; then put in several pieces of gun or pistol barrels, lourled grenades, and fill the intervals with composition; cover the whole over with coarse cloth, well sewed together, keep
ing it in a round form. Then put it into the carcass, having a hollow top and bottom, with bars running between them to hold them together, and composed of four slips of iron joined at top, and fixed at the bottom, at equal distances, to a piece of iron, which, together with the hoops, when filled, form a complete globular body. When quitted finished and cold, the carcass must be steeped in melted pitch, and then instantly immersed in cold water. Lastly, bore three or four holes at top, and fill the same with fuse composition, covering the holes with pitch until used. Carcasses are thrown out of mortars, and weigh from 50 to 230 lb, according to the size of the mortar they are to be thrown out of. There are other carcasses for the sea-service, which differ from a shell only in the composition, and in the four holes from which it burns when fired.

CARCASSES were first used by the bishop of Munster, at the siege of Gron, in 1672, where the duke of Luxemburg commanded.

CARCASSES. Their dimensions and weight, 1796.

<table>
<thead>
<tr>
<th>Kinds</th>
<th>Empty (lb. oz.)</th>
<th>Of completion (lb. oz.)</th>
<th>Complete (lb. oz.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lb. oz. dr.</td>
<td>lb. oz. dr. min</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>15 10 11 18 14 21 3 8 10 11</td>
<td>8 11 9 7 6 11 8</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>14 9 5 4 11 48 14</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>27 3</td>
<td>2 7 11 29 10 11 5</td>
<td>5 22 11 14 4</td>
</tr>
<tr>
<td>7</td>
<td>14 12</td>
<td>2 9 11 16 5 11</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>13 11 1</td>
<td>1 5 12 15</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mortar</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>16 7</td>
<td>55 10</td>
<td>72 1 5 12</td>
</tr>
<tr>
<td>8</td>
<td>16 5 5</td>
<td>8 2</td>
<td>24 7 5 10</td>
</tr>
<tr>
<td>6</td>
<td>13 3 11 11 5 11 6 5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1 0 0</td>
<td>3 11 7 4 11 13 4</td>
<td></td>
</tr>
</tbody>
</table>

Note.—It being found at the siege of Quebec, that the quantity of powder requisite for throwing the carcasses into the town, always destroyed them, the method of filling the interval between the powder and carcass with turf was adopted; and found to preserve the carcass, and to produce every desired effect.

CARRIERS, a kind of conveyance in the Turkish army, which to the number of 1000 are not slaves, nor bred up in the seraglio, like the rest, but are generally beggars, or renegado Christians, who have obtained the rank of horse-guard to the Grand Seignor.

CARMIN, a bright scarlet color, which is used in plans of fortification, and serves to describe those lines that have mason work.

CARNIVAL, in military history, signifies a magnificent entertainment, exhibited by princes or other great personages, on some public occasion, consisting of cavalcades of gentlemen richly dressed and equipped, after the manner of the ancient cavaliers, divided into quadrains, meeting in some public place, and performing jests, tournaments, &c.

CARRIAGES, in military affairs, are of various kinds, viz.

Garrison-CARRIAGES, are those on which all sorts of garrison-pieces are mounted. They are made much shorter than field-carriges, and have generally iron trucks instead of wheels.

As the trucks of garrison-carriges are generally made of cast-iron, their axles should have copper-clouts underneath, to diminish the friction of the iron against the wood. Travelling-carriges are in many respects very unfit for garrison service, though they are frequently used.

Travelling-CARRIAGES are such as guns are mounted on for sieges, and for the field; they are much longer, and differently constructed from garrison-carriages; having 4 wheels, 2 for the carriage, and 2 for the limber, which last are only used on marches.

Field CARRIAGES are both shorter and lighter than those before-mentioned, bearing a proportion to the pieces mounted upon them.

Limbers are two-wheel carriages, sometimes made with shafts, and sometimes with beams for drawing doubles, they serve to support the trail of field carriges, by means of the pintle or iron bolt, when artillery is transported from one place to another, and are taken off again when the pieces are to be fired, unless upon a march, when harrassed by the enemy, &c.

Gallipot-CARRIAGES serve for 1, 2, and 3 pounders. These carriages are made with shafts, so as to be drawn without a limber. In the war of 1736, the King of Prussia, mounted light 3-pounders on these carriages, which answered very well. The horse-artillery is an improvement of this method of the Prussian.

Howitzers-CARRIAGES are for transporting howitzers; and those for the 6 and 8 inch howitzers, are made with screws to elevate them, in the same manner as the light 6-pounders; for which reason they are made without a bed, and the centre-transom must be 9 inches broad to fix the screw, instead of 4 for those made without; in the centre, between the trail and centre-transom, there is a transom-bolt, which is not in others, because the centre-transom must be made to be taken out, after which, the howitzer can be elevated to any angle under ninety degrees.

Tumbrel-CARRIAGE. See TUMBRIL.
Block-Carriages, a carriage which is made from a solid piece of timber, hollowed out so as to receive the gun or howitzer into the cap-squares. The lower part of the cap-square is let into the solid wood, and the gun or howitzer is either elevated or depressed by a screw, as in other carriages. The limber for this carriage carries two large chests for ammunition, and takes four men. The pintle of the limber is so constructed as to receive the gunstock of the carriage, by which means a greater relief is afforded when the carriage passes over rough round.

Bicycle-Carriages are also used by the horse-artillery as curricles. They are particularly useful on mountain service. The original inventor of them, is the British Colonel Congreve, author of many other important military inventions.

Field-Carriages are to carry timber and other heavy burdens from one place to another, at no great distance: they serve also to convey guns or mortars upon a battery, whether their own carriages cannot go, and are drawn by men as well as horses.

Pontoon-Carriages. Carriages of this kind are solely for transporting the pontoon; they had formerly but two wheels, but are generally now made with four.

The making use of two-wheel carriages for travelling a great way, is contrary to sense and reason; because the whole weight lying upon the two wheels, must make them sink deeper into the ground, than those of a four-wheel carriage.

Carriage. Weight of Field Carriages at present in use.

Horse Artillery Carriages

<table>
<thead>
<tr>
<th>Description</th>
<th>Cwts. qr. lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Prs. gun and carriage complete for service, with two men, and their appointments on the limber, and 16 rounds of ammunition.</td>
<td>42 0 14</td>
</tr>
<tr>
<td>Ammunition caisson for do. complete, with two men on the limber, and 1 spare wheel, 2 spare shafts, with 78 rounds of ammunition.</td>
<td>33 3 0</td>
</tr>
<tr>
<td>6 Prs. equipped as above with 42 rounds</td>
<td>34 1 21</td>
</tr>
<tr>
<td>Ammunition caisson as above, 108 rounds</td>
<td>39 0 21</td>
</tr>
<tr>
<td>5 1/2 inch howitzer, equipped as above, with 20 rounds</td>
<td>35 3 0</td>
</tr>
<tr>
<td>Ammunition caisson for do. as above, with 52 rounds</td>
<td>39 2 0</td>
</tr>
<tr>
<td>Forge wagon, complete for travelling</td>
<td>19 2 14</td>
</tr>
<tr>
<td>Large tilted baggage wagon, empty</td>
<td>18 3 0</td>
</tr>
<tr>
<td>Equipment to be carried</td>
<td>12 0 0</td>
</tr>
</tbody>
</table>

Park Carriages.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cwts. qr. lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Prs. gun carriage, without box.</td>
<td>10 1 21</td>
</tr>
<tr>
<td>Limber to do.</td>
<td>7 2 14</td>
</tr>
<tr>
<td>Gun</td>
<td>18 0 7</td>
</tr>
</tbody>
</table>

Iron Axletrees.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cwts. qr. lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Pr. Light</td>
<td>12 0 0</td>
</tr>
<tr>
<td>Carriage complete</td>
<td>13 3 0</td>
</tr>
<tr>
<td>Limber, with em. box</td>
<td>11 3 14</td>
</tr>
<tr>
<td>6 Prs. Detachments</td>
<td>13 0 0</td>
</tr>
<tr>
<td>Carriage complete</td>
<td>11 0 14</td>
</tr>
<tr>
<td>Limb. to do. em. box</td>
<td>11 0 27</td>
</tr>
<tr>
<td>6 Prs. light batt. gun</td>
<td>6 0 0</td>
</tr>
<tr>
<td>Carriage without box</td>
<td>9 3 0</td>
</tr>
<tr>
<td>Iron axletrees</td>
<td>22 0 0</td>
</tr>
<tr>
<td>Limber, with em. box</td>
<td>8 3 21</td>
</tr>
<tr>
<td>5 1/2 inch howitzer, light</td>
<td>4 3 2</td>
</tr>
<tr>
<td>Carriage, without box</td>
<td>10 0 0</td>
</tr>
<tr>
<td>Limber, with em. box</td>
<td>9 1 1</td>
</tr>
<tr>
<td>24 Prs. platform travelling carriage</td>
<td>22 3 0</td>
</tr>
<tr>
<td>Standing carriage for do. iron trucks, and tackles of the carr.</td>
<td>13 3 16</td>
</tr>
<tr>
<td>Iron gun</td>
<td>48 0 0</td>
</tr>
<tr>
<td>Ball cartridge wagon</td>
<td>16 1 17</td>
</tr>
<tr>
<td>Duke of Richmond’s pattern</td>
<td>46 0 17</td>
</tr>
<tr>
<td>Common pattern ammunition caisson</td>
<td>36 2 0</td>
</tr>
<tr>
<td>Either altered</td>
<td>36 2 0</td>
</tr>
<tr>
<td>Charge of ammunition</td>
<td>20 0 0</td>
</tr>
<tr>
<td>New infantry ammunition cart</td>
<td>9 1 14</td>
</tr>
<tr>
<td>Charge of ammunition</td>
<td>31 1 0</td>
</tr>
<tr>
<td>Common sledge, complete</td>
<td>17 1 14</td>
</tr>
<tr>
<td>Common truck carriage</td>
<td>12 2 14</td>
</tr>
<tr>
<td>Common hand cart</td>
<td>4 1 0</td>
</tr>
<tr>
<td>Forge wagon, complete</td>
<td>13 2 14</td>
</tr>
</tbody>
</table>

Dimensions of certain parts of carriages, the knowledge of which may prevent many mistakes in arranging the different pieces for disembarkation, or in other similar situations.

Axeletrees.—Most of the field carriages are now made with iron axletrees; the dimensions of which are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cwts. qr. lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Pr. Light</td>
<td>12 0 0</td>
</tr>
<tr>
<td>3 Pr. Heavy</td>
<td>12 0 0</td>
</tr>
<tr>
<td>5 1/2 in. Howitzer</td>
<td>12 0 0</td>
</tr>
<tr>
<td>Ammunition caisson</td>
<td>12 0 0</td>
</tr>
<tr>
<td>Ball carriage do. whether horse artillery or the park, whether limber or carriage</td>
<td>12 0 0</td>
</tr>
<tr>
<td>Light 12 Pounder</td>
<td>32 2 16</td>
</tr>
<tr>
<td>and limber</td>
<td>32 2 16</td>
</tr>
<tr>
<td>Medium 12 Pr.</td>
<td>32 2 16</td>
</tr>
<tr>
<td>Limber to do.</td>
<td>24 3 8</td>
</tr>
</tbody>
</table>
The carriages for horse artillery guns, as 12, 6, and 4 pounders, are constructed lighter than formerly; the two first of these carriages have an additional trunnion plate; and indeed it does not appear why every travelling carriage should not have this important improvement since it eases the horses and saves the carriage, and by lessening the fatigue increases the celerity of the movements, and spares the cattle for naught.

For wood of which carriages are made, see the word Wood.

### Dimensions and Weight of Standing Gun Carriages

<table>
<thead>
<tr>
<th>Ammunition Carriage</th>
<th>Length in feet</th>
<th>Weight in lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 Prs. Heavy</td>
<td>18</td>
<td>500</td>
</tr>
<tr>
<td>12 Prs. M. d.</td>
<td>12</td>
<td>300</td>
</tr>
<tr>
<td>6 Prs. Light</td>
<td>6</td>
<td>150</td>
</tr>
<tr>
<td>3 Prs. Light</td>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>Howitzer 8 in.</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>5½ in.</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Ammunition wagon</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Close boarded Ammunition casson</td>
<td>5</td>
<td>100</td>
</tr>
</tbody>
</table>

### Carriages on a march. See Marching

The carriages for horse artillery guns as 12, 6, and 4 pounders, are constructed lighter than formerly; the two first of these carriages have an additional trunnion plate; and indeed it does not appear why every travelling carriage should not have this important improvement since it eases the horses and saves the carriage, and by lessening the fatigue increases the celerity of the movements, and spares the cattle for naught.

For wood of which carriages are made, see the word Wood.
Diameter of the Wheels of Field Carriages, continued.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Limber to light 6 Pr.</td>
<td>5 1-2</td>
<td>Ranges with 8 inch shells, from 68 Pr.</td>
<td>5 8</td>
<td></td>
</tr>
<tr>
<td>Med. 12 Pr. Sling Carriage</td>
<td>4 o</td>
<td>4 o</td>
<td>3 o</td>
<td></td>
</tr>
<tr>
<td>Pontoon carriage</td>
<td>2 Fore</td>
<td>6 Limber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Inch Howitzer</td>
<td>5 Carriage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ball Ammunition Cart</td>
<td>5 o</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Pr. Flat Carriage</td>
<td>4 o</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CARTE, in a military sense, is a vehicle mounted on two wheels, and drawn by one or more horses; of which there are several sorts, viz.:

**Powder Carries** for carrying powder with the army; they are divided into parts, by boards of an inch thick, which enter about an inch into the shafts. Each of these carriages can only stow 4 barrels of powder. The roof is covered with an oil-cloth, to prevent dampness from coming to the powder.

**Sling Carriages** used to carry mortars or heavy guns from one place to another at a small distance, but chiefly to transport guns from the water side to the proof-place, and from thence back again; as also to convey artillery to the batteries in a fortification; they have wheels of a very considerable diameter, and the guns or other heavy articles which they carry are slung in chains from the axle.

**Cartridge Box**, a case of wood, made in a circular form, to be worn before the body of the soldier, holding 24 or more musket-ball cartridges in rows; it is covered with leather, and worn upon a

**Car Touch**, in military transactions, is an agreement between two states at war for the exchange of their prisoners of war.

**Cartridges**, in a military sense, is a case of wood about 3 inches thick at both ends, bound about with marline, holding about 400 musquet balls, besides 8 or 10 iron balls of a pound each, to be fired out of a howitzer, for the defence of a pass, &c. See Grape shot.

**Cartouches** in artillery, are made of leather, to sling over the shoulder of the matross, who therein carries the ammunition from the magazine or wagon, for the service of the artillery, when at exercise or on real service.

**Cartouches en formoire**, Fr. military passes which were given to soldiers going on furlough.

**Cartridge**, a case of paper, parchment, or flannel, fitted to the bore of a piece, and holding exactly its proper charge. Musket and pistol cartridges are always made of strong paper, between 30 and 40 of which are made from 1 pound of powder, including their priming. Ball cartridges should be made of a different coloured paper to what is used for blank. The French musquet ball cartridges are all capped with flannel. Cannon and howitzer cartridges are sometimes made of parchment, though more generally of flannel; the charges they contain are adapted to the service they are intended for.

Cartridges for cannon are made with the best effect, when the flannel does not admit the leakage of powder; to effect this the flannels are first sewed to the size of a mandril or wooden roller; and the sewing completed, the end is tied, and hammered on the end of the mandril, the whole is then smeared with a coat of paste made of wheat flour and gum; and then drawn over, so that the pasted side may be inward; then set to dry, before filling they must be examined.

The experiment is worth the trial of making cartridges of cotton saturated with alum; its cheapness, its abundance, and easy formation, all recommend it. The alum would render it fire proof.

**Cartridge Box**, a case of wood, made in a circular form, to be worn before the body of the soldier, holding 24 or more musket-ball cartridges in rows; it is covered with leather, and worn upon a
belt, both on duty, and on the day of battle. See Pouch.

The light infantry in the French service carry a cartridge box in front which covers the abdomen; and contains several rounds; some carry the cartridges on the side one above the other.

**CARTRIDGES for guns.**

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight of Powder</th>
<th>Number of Shots</th>
<th>Tonnage</th>
<th>No. packed</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>oz. dr.</td>
<td>ft. in.</td>
<td>oz. dr.</td>
<td>ft. in.</td>
<td>oz. dr.</td>
</tr>
<tr>
<td>Founders</td>
<td>42</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>1900</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1400</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1000</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>3000</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2000</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1000</td>
</tr>
<tr>
<td>Of Flannel</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1400</td>
</tr>
</tbody>
</table>

The tonnage of flannel cartridges is x-fifths more than that of paper.

**CASCABLE, in artillery, is the very hindermost knob or button of the cannon, or the utmost part of the breech. See CANNON.**

**CASCANS, in fortification, holes in the form of wells, serving as entrances to galleries, or giving vent to the enemy's mines. See FORTIFICATION.**

**CASEMATE, in fortification, a vault, or arch of mason-work, in that part of the flank of a bastion which is next the curtain, made to defend the ditch, and the face of the opposite bastion. See FORTIFICATION.**

**CASEMATES nouvelles, Fr. arched batteries which are constructed under all the openings of revetments or ramparts.**

**CASENES, in fortification, are buildings for the soldiers of the garrison to live in, generally erected between the houses of fortified towns, and the rampart.**

**CASENES, in a general acceptation, signify barracks.**

**CASE-Shot, See SHOT, and Laboratory.**

**CASHIERED. An officer sentenced by a general court-martial, or peremptorily ordered by the king, to be dismissed from the service, is said to be cashiered.**
CASCAR, or Casque, the ancient helmet or armor for the head.

CASSINE, in military history, signifies a small house in the country, generally surrounded by a ditch. Cassines are very convenient to post small parties in, where they will be sheltered from any sudden attack, and can even make head till the nearest detachments can come and relieve them.

CASSIONS. See Cassons.

CASTLE, in military affairs, a fortified place, or strong hold, to defend a town or city from an enemy. English castles are for the most part no higher in antiquity than the Norman conquest; or rather about the middle of King Stephen's reign. Castles were erected in almost all parts of that kingdom, by the several contending parties; and each owner of a castle was a kind of petty prince, coining his own money, and exercising sovereign jurisdiction over his people. History informs us that 1217 castles were built in one reign.

CASTRAMETATION, is the art of measuring or tracing out the form of a camp on the ground; yet it sometimes has a more extensive signification, by including all the views and designs of a general; the one requires only the knowledge of a mathematician, the other the experience of an old soldier. The ancients were accustomed to fortify their camps by throwing up entrenchments round them. The Turks, and other Asiatic nations, fortify themselves, when in an open country, with their wagons and other carriages. The practice of the Europeans is quite different; for the security of their camp consists in the facility and convenience of drawing out their troops at the head of their encampment; for which reason, whatever particular order of battle is regarded as the best disposition for fighting, it follows of course, that we should encamp in such a manner as to assemble and parade our troops in that order and disposition as soon as possible. It is therefore the order of battle that should regulate the order of encampment; that is to say, the post of each regiment in the line of battle should be at the head of its own encampment; from whence it follows, that the extent of the line of battle from right to left of the camp, should be equal to the front of the troops in line of battle, with the same intervals in the camp as in the line. By this means every battalion covers its own front, and they can all lodge themselves, or turn out in case of necessity, at a minute's warning.

If the front of the camp is greater than the line, the troops must leave large intervals, or expose their flanks; if less, the troops will not have room to form with the proper intervals.

The front or principal line of the camp is commonly directed to face the enemy. See Camp.

CAT, or nine tails, a whip with nine knotted cords, with which the British soldiers are punished. Sometimes it has only five cords. A barbarous and unmilitary usage, unknown in any other European army.

CATAFALCO, in military architecture, a scaffold of timber, decorated with sculpture, painting, &c. for supporting the coffin of a deceased hero, during the funeral solemnity.

CATAPHRACCT, the old Roman term for a horseman in complete armor.

CATAPHRACTA, in the ancient military art, a piece of heavy defensive armor, formed of cloth or leather, fortified with iron scales or links, whereby sometimes only the breast, sometimes the whole body, and sometimes the horse too, was covered.

CATAPULTA, in military antiquity, an engine contrived for throwing of arrows, darts and stones, upon the enemy. Some of these engines were so large, and of such force, that they would throw stones of an hundred weight. Josephus takes notice of the surprising effects of these engines, and says, that the stones thrown out of them beat down the battlements, knocked off the angles of the towers, and had force sufficient to level a deep line of soldiers.

CATATRAME. See Crane.

CATERVA, in ancient military writers, a term used in speaking of the Gaulish or Celtic armies, denoting a body of four hundred armed men. The word is also used to denote a party of soldiers in disarray; in opposition to cohort et turma, which signify in good order.

CATATUS, in ancient military history, was a kind of covered shed, sometimes fixed on wheels, and similar to the Villa and Platea of the ancients.

CAVALCADE, in military history, implies a pompous procession of horsemen, equipages, &c. by way of parade, to grace a triumph, public entry, or the like.

CAVALIER, in fortification, is a work generally raised within the body of the place, 10 or 12 feet higher than the rest of the works. Their most common situation is within the bastion, and made much in the same form; sometimes they are placed in the gorge, or on the middle of the curtain; they are then made in the form of a horse-shoe. See Fortification. Their use is to command all the adjacent works and country round about it; they are seldom, or never, made but when there is a hill or rising ground, which overlooks some of the works.

CAVALIER, in the attacks, is
an elevation which the besiegers make by means of earth orgubons, within half-
way, or two thirds of the places, to dis-
cover, or to enflame the covert way.
CAVALRY, in military affairs, that
body of soldiers which serves and fights on
horseback. Under this denomination are
Dragoons, which serves and fights on
horseback. The first English troop of horse
was raised in 1660. See Light-Horse.
Dragoons, are likewise regiments of
horse, but distinguished from the former
by being taught to fight both on foot and
on horseback. The first English regiment
of dragoons was raised in 1681. See
Light-Horse, see Light-Horse.

CENTURY, in military affairs, implies a
well, having several subteats.
CENTRE, in a general sense, signifies
the point equally distant from the extremities of a line,
surface, or solid.
CENTRE, of a batallion, on parade, is the
middle, where an interval is left for the
colors; of an encampment, it is the
main street: and on a march, is an interval
for the baggage, &c.
CENTRE, of a battery, is a point in the
middle of the gorge of the bastion, from
whence the capital line commences, and
which is generally at the inner polygon
of the figure.
CENTRE, of gravity, in military me-
chanics, is that point about which all the
diameters exactly balance each other in any situation.
CENTRE, of a conic section, is the point
where all the diameters meet.
CENTRE, of an ellipse, is that point
where the transverse and conjugate 
diameters intersect each other.
CENTRE, of motion, is that point which
remains at rest while all the other parts
of the body move about it.
CENTRE, of percussion, is that point in
which the force of the stroke is the great-
est possible. When the moving body re-
volves round a fixed point, the centre of
percussion is the same with the centre of
oscillation, and found by the same me-
thod: but when the body moves in a
parallel direction, the centre of percussion
is the same with the centre of gravity.
CENTINEL, is a private soldier posted upon any spot of ground, to stand and watch carefully for the security of the guard, or of any body of troops, or post, and to prevent any surprise from the enemy. All centinels are to be very vigilant on their posts; neither are they to sit down, wave their arms out of their hands, or sleep; but keep moving about on their posts during the two hours they stand, if the weather will allow of it. No centinels are to move more than 50 paces to the right, and as many to the left of his post, and let the weather be ever so bad, he must not get under any other cover, but that of the centry box. No one to be allowed to go from his post without leave from his commanding officer; and, to prevent desertion or marauding, the centries and vedettes must be charged to let no soldier pass.

CENTINEL, or the soldier posted near an enemy in some very dangerous post, where he is in perpetual danger of being shot or taken.

CENTRY box, a sort of box, or hut, to shelter the centinel from the injuries of the weather; in fortifications they are sometimes made of masonry, and of stone, or brick in a circular form.

CENTURION, a military officer among the ancient Romans; who commanded an (centum) hundred men. The term is now obsolete. It answered to the modern captain of a company.

CENTURY, in a military sense, means a hundred soldiers, who were employed in working the battering-ram.

CERCLE, Grand Cercle, Fr. A form observed under the old government of France, by which it was directed, that every evening at a specified hour the sentinels and corporals of a brigade should assemble to receive orders the former standing in front of the latter. Subsequently to the grand circle, a smaller one was made in each regiment, when general, or regimental orders were again repeated to the sergeants of each regiment, and from them communicated to the officers of the several companies.

CERTIFICATES, are of various kinds, as applied to officers generally, or to commissaries, commanding officers, or staff. They are a testimonial bearing witness to the existence of some requisite qualifications, or to the performance of some act required by the regulations of the army, and for which the officer who signs is responsible, whether he certifies for himself, or for any other officer.

Military Certificates are of various denominations, and consist chiefly of the following kinds, viz:

Certificate from a field officer to the commander in chief, affirmiting the eligibility of a young man to hold a commission.

Certificate of an officer in the English army upon honor, that he does not exceed the regulation in the purchase of his commission.

Certificate from a general officer to affirm and prove the losses which officers may sustain in the field.

Certificate from colonels of regiments to the board for admission of proper objects to the hospital.

Certificate from a magistrate to identify the person of a recruit, and to affirm, that he has enlisted himself voluntarily into the service; likewise, that the articles of war have been read to him.

Certificate from regimental surgeons, whether men when they join are proper and fit objects to be enlisted; this is required in the United States army, to be on the back of every paper of enlistment.

Certificate of commanding officers for stores, &c.

Certificate, to enable an officer to receive half pay.

Certificate of surgeons and assistant surgeons, to prove their having passed a proper examination.

CESSATION, or cessation of arms, in a military figurative sense, means a truce, or the total abrogation of all military operations for a limited time.

CHACE of a gun, means the length from the trunnions to the muzzle. See Cannon.

CHAFFERY, that part of the country where the forests are placed for hammering iron into complete bars, and thereby bringing it to perfection.

CHAIN for engineers, is a sort of wire chain divided into links of an equal length, made use of for setting out works on the ground, because cord lines are apt to shrink and give way.

There are several sorts of chains made use of in mensuration; as Mr. Rutherford's, of two perches in length; others, one perch long; some of 1000 feet in length, but that which is most in use among engineers is Mr. Gunter's, which is 4 poles long, and contains 100 links, each link being 7 92-100 inches in length, See Chain, See Foot, See Yard.

CHALLENGE, a cartel, or invitation to a duel, or other combat; it may with propriety be called a provocat, or summons to fight, when an allusion to formation of honor has been offered.

CHALLENGE is also a term applied to an objection made against any member of a court-martial, on the score of real or presumed partiality. The prisoner, however, in this case, must assign his cause of challenge; of the relevancy, or validity of which the members are themselves the judges; so that imperemptory challenges, though allowed in civil cases, are not acknowledged in military law. The privilege of challenging belongs equally to the prisoner and the prosecutor.

CHAMADE, in a military sense, means a signal made by the enemy, either...
CHAMBER of a cannon, in artillery, that part of the bore of a cannon which receives the powder with which it is charged. See CANNON.

CHAMBER of a mortar, the space where the powder lies, and generally of several forms and dimensions, such as the conic, spheric, cylindric, parabolic, and concave, or bottled chambers. See MORTAR.

In 1757, and 1769 experiments were made at Woolwich with an 8 inch mortar, with four shifting chambers, to ascertain which form gives the longest range.

The chambers were all of the same capacity, viz. 5½ cubic inches, and contained two pounds of powder. Their forms were:

1st. Common conical chamber with the circular bottom.
2d. The same reversed.
3d. The cylindrical chamber with circular bottom.
4th. The spheric chamber.

The ranges were the medium of settling the difference of contending armies, and frequently to try pieces of ordnance instead of fringes.

CHAPEL, the metallic part put on the end of a scabbard, to prevent the point of the sword or bayonet from piercing through it.

CHAPELET, Fr. a piece of flat iron with three tenons or ends of timber, which is fixed to the end of a cannon.

CHAPITEAU, Fr. two small boards which are joined together obliquely, and serve to cover the touch-hole of a piece of ordnance.

CHAPE, the metallic part put on the end of a scabbard, to prevent the point of the sword or bayonet from piercing through it.

CHARACTER, in a general sense, implies any mark used for representing either ideas, or objects.

Military Characters are certain marks invented for avoiding prolixity, and more clearly conveying the thoughts of the learned in those sciences to beginners; the chief of which are as follow:

+ in algebra is the sign of the real existence of the quality it stands before, and is called an affirmative, or positive sign. It is also the mark of addition, and signifies, that the numbers, or quantities on each side of it are added together.

This is the note of negation, negative existence, or non-entity. It is the sign of subtraction, and signifies, that the numbers, or quantities which come after it, are to be taken from the numbers, or quantities which stand before it. As + signifies a positive or affirmative quantity, or absolute number, so — signifies a fictitious or negative number or quantity. Thus — 3 is 3 times less than nothing. So that any number or quantity with the sign + being added to the same number, or quantity with the sign —, their sum will be equal to nothing. Thus 8 added to — 8 is equal to 0, but — 8 taken from + 8, is equal to 16.

X is the sign of multiplication. It signifies into, or multiplied by.

√ is the mark of division, and signifies, that the numbers, or quantities before it are to be divided by the numbers after it.

= are the signs of equality, and signify, that the quantities and numbers on the one side of it are equal to the quantities and numbers on the other.

√ is the sign of radicality, and shews (according to the index of the power that is set over or after it) the square, cube, or other root, that is extracted, or is to be so, out of any quantity.

V is the sign of the cube root, and signifies the extraction of it, as in the square root above.
the sign of continued, or geometrical proportion.

$\equiv$ is the mark of geometrical proportion, and is usually placed between two pairs of equal ratios; as $3 : 6 \equiv 4: 8$.

Or $a : b = d : c$, and are thus read, as $a$ is to $b$, so is $d$ to $c$.

$>$ or $<$ are signs of majority; thus $a > b$ expresses that $a$ is greater than $b$.

$s < b$, and the third $x, y, z$.

$+$, $\pm$, $\pm$, &c. which signify degrees, minutes, seconds, thirds. Thus $40^\circ, 55^\prime, 55^\prime \frac{1}{2}$ is read 40 degrees, 55 minutes, 55 thirds.

It is also used in the elevation of pieces of artillery.

$>$ or $<$ are signs of minority; and when we would denote that $a$ is less than $b$, we write $a < b$, or $a < b$, &c.

$\equiv$ signifies more, or less such a quantity, and is used often in the extraction of roots, completing of squares, &c.

Arms. Characters. most generally used, are as follows:

1. $T$. $C$. $gr$. $lb$. which signifies pounds, or hundreds of 112 pounds, or quarters of 28 pounds, $lb$. pounds of 16 ounces avoirdupois. Thus a piece of artillery with 14 c. 3 q. 10 lb., is 14 hundred, 3 quarters, and 16 pounds.

2. $pr$. signifies pounder. Thus 24 pr. is a 24 pounder.

Thus, for $T. C. gr. lb$, which signifies cents, or hundreds of 112 pounds, or quarters of 28 pounds, $lb$. pounds of 16 ounces avoirdupois. Thus a piece of artillery with 14 c. 3 q. 10 lb., is 14 hundred, 3 quarters, and 16 pounds.

3. $pr$. signifies pounder. Thus 24 pr. is a 24 pounder.

Case. The charge for case shot is usually one fourth the weight of the round shot, for case shot, and one fourth of it for case shot.

The charge for canonnades is usually one twelfth the weight of the shot. The highest is one eighth, and the lowest one sixteenth.

By the experiments made at Woolwich in March 1801, it is recommended, that when cylinder powder is used on service, the charges of field ordnance with round shot, shall be reduced to the usual quantities for case shot. The same experiments recommend, that the thickness of the wood bottom be varied, in order to change the position of the shot, and thereby save the bore; and that the paper cap which is usually thrown away on service, shall be put over the shot before it is introduced into the piece.

For charges for small arms see the word Cartridges.

Chargers of French guns in French weights.

<table>
<thead>
<tr>
<th>Prs.</th>
<th>Light Round Shot</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Case</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Case</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Round Shot</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Case</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Round Shot</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Case</td>
<td>3</td>
</tr>
</tbody>
</table>
CHARGE de mine, Fr. the disposition of a certain quantity of powder, which is used for the explosion of a mine.

CHARGE, in gunnery, implies the quantity of powder, shot, ball, shells, greased, &c., with which a gun, mortar, or howitzer, is loaded.

Charges for every gun from a 42-pounder to a 3-pounder, both brass and iron, in proof, service, saluting, and elections.

<table>
<thead>
<tr>
<th>Caliber</th>
<th>Proof</th>
<th>Service</th>
<th>Saluting</th>
<th>Proof</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>72</td>
<td>8</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>3-5</td>
<td>102</td>
<td>117</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>24</td>
<td>170</td>
<td>186</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>358</td>
<td>373</td>
<td>30</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>677</td>
<td>700</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>997</td>
<td>1010</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>1117</td>
<td>1130</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1337</td>
<td>1350</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

As pieces of artillery are of various denominations, and consequently made use of on several occasions, their charges must of course have many variations.

CHARGE, also the attack of cavalry; and charge bayonet is a word of command given to infantry, to force the enemy whom they are to charge at the point of the bayonet. To sound a charge, is the sound of the trumpet as a signal for cavalry to begin the attack.

CHARGE, in military law, is the specification of any crime, or offence for which a non-commissioned officer or soldier is tried before a court martial. In all charges of this nature, the time and place, when and where the crime, or offence was committed, must be set forth with accuracy and precision.

CHARGED Cylinder, in gunnery, implies that part of the chase of a gun, which contains the powder and ball.

CHARGERS are also bandoliers, or little bags that contain powder for charge or priming.

CHARIOT, a car, in which men of arms were anciently placed. These were armed with scythes, hooks, &c. The person who drove the chariot was called the charioteer.

CHARPENTIER, Fr. a carpenter.

CHART, or sea-CHART, is a hydrographical map, or a projection of some part of the earth's superficies in plane, for the use of navigators and geographers.

Plane-ChART, is a representation of some part of the earth's superficies of the terraqueous globe, in which the meridians are supposed parallel to each other, the parallels of latitude at equal distances, and consequently the degrees of latitude and longitude everywhere equal to each other.

Chart of reduction, is that where the meridians are represented by right lines, inclining towards each other; thence it appears by construction, that these charts must correct the errors of the plane ones. But since these parallels should cut the meridians at right angles, and do not, they are defective, inasmuch as they exhibit the parallels inclined to the meridians.

Mercator-ChART, is that where the meridians are straight lines parallel to each other, and equidistant; these parallels are also straight lines, and parallel to each other; but the distance between increases from the equinoctial towards each pole, in the ratio of the secant of the latitude to the radius.

Globular-ChART, a meridional projection, wherein the distance of the eye from the plane of the meridian, upon which the projection is made, is supposed to be equal to the sine of the angle of 45 degrees. This projection comes the nearest of all to the nature of the globe, because the meridians therein are placed at equal distances.
CHAUFFEURS, Fr. are what we call cross-feet, they consist of nails with 4 or 5 points, of which one always stands upwards above the level of the ground; each point is 2, 3, 4 or 5 inches long. They are usually fixed in different parts of a breach, or in any place which is accessible to cavality, to prevent its approach: sometimes they are of use to obstruct the passage of cavalry through the streets of towns.

CHAUFFEURS, or Rés de Chaussé, an old expression for the level of the field or the plain ground.

CHEFS, a general name among mechanics, for those pieces of timber in their machines, which are double and perfectly corresponding to each other. In the construction of military carriages, &c. the term is used to denote the strong planks which form the sides of gun carriages.

CHEF, Fr. Chef has various significations in the French service. With regard to private soldiers, it serves to mark out the corporal or eldest soldier, who has the management of their provisions in quarters, or in the field; this person was called chef de chambre. A chef de chambre among the Romans, was called a decanus, whence our church deacon.

CHEF d'escadre, Fr. a general officer, who commands any part of an army, division of a fleet. His duty in the sea service is nearly the same as that of a commodore or a breeder general on shore.

Chef d'escadre sit upon all general courts martial, and rank according to the dates of their commissions.

CHEFS de flûtes, Fr. the front rank of a battalion, consisting generally of the best and bravest soldiers. When an engagement takes place, par files, by files, as in the action of riflemen, the order of the battalion is necessarily changed; that which was rank becomes file, and what was file becomes rank.

CHELSEA HOSPITAL, a noble edifice which was built by Charles the 2d of England on his restoration, and afterwards improved by his successor James the 2d. Non-commissioned officers and private men, who have been wounded or maimed in the service, are entitled to the benefit of this hospital. There are in and out-pensioners belonging to the establishment, and the provisions it extends to the militia under the following restrictions: serjeants who have served fifteen years, and corporals or drummers who have served twenty, may be recommended to the bounty. Serjeants on the establishment may likewise receive that allowance, with their pay in the militia. But serjeants who have been appointed subsequent to the passing of the 26th of George the 3d, are not entitled to it under twenty years service.

CHEMIX-CEUVRE, see Coventry.

CHEMIX des roules, in fortification, a space between the rampart and bow-pa
rapet under it, for the rounds to go about it.

CHEMISE, Fr. an obsolete term to signify the revetement made of brick work, which was formerly constructed to serve a work made of earth, especially those that were formed of sandy soil, and would necessarily require too large a talus to support the weight. The modern term is couvoir revetue, place revetue.

CHEMISE de feu, Fr. a French sea-term, to signify several pieces of old sails of various sizes, which after they have been pitched, and thoroughly soaked in other combustible matter, such as oil of patch, camphor, &c. may be nailed to an enemy's ship on boarding her, and when set fire to, will consume the same. It takes its presse over this bolt, to raise any enemy's ship on boarding her, and when may be used with a hand-spike, which takes its presse over this bolt, to raise any thing by force.

CHEVROTINES, Fr. leaden bullets of small calibre; there are generally sixty to a pound weight.

CHIEF or CHIEFTAIN, the head leader, or commander of any clan in time of war, was so called, especially among the Scotch.

CHIORME, Fr. the crew of galley slaves and havevoliers or volunteers.

CIMIER, Fr. a heavy ornament, which the ancient knights or chevaliers in France and in other countries were accustomed to wear upon their helmets; such figures were afterwards substituted.

CHOROGRAPHY, in engineering, is the art of making a drawing or map of a country, province or district.

CIMITAR, See SCIMITAR.

CINQUAIN, in ancient military history, was an order of battle, to draw up 5 battalions, so that they might make 5 lines; that is, a van, main-body, and reserve.

CIRQUE, in mathematics, is a plane figure comprehended under one line only, to which all right lines drawn from a point in the middle of it are equal to one another.

CIRCUMFERENCE, an instrument used by engineers for measuring angles.

CIRCUMVALLATION, or line of circumvallation, in military affairs, implies a fortification of earth, consisting of a parapet and trench, made round the town intended to be besieged, when any molestation is apprehended from parties of the enemy, which may march to relieve the place.

Before the attack of a place is begun, care is to be taken to have the most exact plan of it possible; and upon this the line
of circumvallation and the attack are pro-
jects this line, being a fortification op-
posed to an enemy that may come from
the open country to relieve the besieged,
ought to have its defence directed against
them; that is, so as to fire from the town:
to the open country to relieve the besieged,
and the besiegers are to be encamped be-
hind this line, and between it and the
place. The camp should be as much as
possible out of the reach of the shot of
the place; and the line of circumvallation,
which is to be farther distant from the
place than the camp, ought still more to
be out of the reach of its artillery.
A cannon are never to be fired from the
rear of the camp, this line should be up-
wards of 1200 fathoms from the place:
we will suppose its distance fixed at 1400
fathoms from the place: and the line of
the camp may be computed at about 30
fathom, behind the line, and between
the camp, 100 fathom, which being added to the 1400,
makes 1700 fathom constitute the dis-
tance of the camp from the place. The
depth of the camp should have its defence
directed against the place; and the line of
circumvallation, rear of the camp, this line should be up-
wards of 1200 fathoms from the place:
forma building, of
CIVIL CROWN, among the ancient
Romans, was a crown given to any soldier
who had saved the life of a citizen. It
was composed only of oak leaves, but
accustomed more honorable than any other.
CIVIERE, Fr. a small hand-barrow,
which is carried by 2 men, and is much
used by the artillery.
CLAIRECIEUX, a silly pageant
which has survived the fourteenth and
fifteenth ages, and kept up for show in the
court of England, he is called the second
king at arms, from the duke of Clarence,
third son of king Edward III.
CLAIRECIEUX, a species of bur-
tail, with which the timber work of a
gallery is covered. It is likewise used in
saps.
CLEAR, to clear the trenches. See
TRENCHES.
Clerk, in the general acceptance of
the term, a writer in a public office;
CLOTHING. Clothing of the army
of the United States is provided under the
order of the war department, by a pur-
veyor of public supplies, who buys and
sees the clothing made; it is then placed in the military stores and issued upon
order. The clothing of the British army
is determined by a permanent board, com-
pounded of the commander in chief, and
a certain number of general officers, who
act under the king's immediate authority:
the annual clothing of the infantry of
the line, or effective infantry, serving in
Europe, in North America, or at the
Cape of Good Hope, (Hussian corps ex-
cepted) consists in a coat, waistcoat, or
breeches, under the leather part and brass plate, ever,
CLOUTS. See AXLE-TAUTS.
...a temporary inability in the commanding officer to restore any given body of men to their natural front in line or column. This occurs after some manoeuvre has been performed, and is occasioned by false directions being given to the different component parts. Ignorant and inexperienced officers may frequently commit this error; sometimes however, the circumstance may arise from an erroneous statement of a division or company, notwithstanding that the word of command was correct. An able officer in that case will instantly know how to unravel the several parts. The less informed and the less capable may find a relief in sounding the dispa, or seeing the compass, so as to have it ready for an instant discharge; and, singular as it may appear, the officers and men belonging to a certain number of old regiments in the Prussian service do not wear any mark in their hats. In the United States the cockade is worn in and out of regimentals, by every species of military character.

**COFFER.** In fortification, a hollow lodgment sunk in the bottom of a dry ditch, from 6 to 7 feet deep, and from 10 to 18 feet broad, and the length of it, the whole breadth of the said ditch, from side to side. The besieged generally make use of these cover to repulse the besiegers, when they attempt to pass the ditch: they are distinguished only by their length from Caponiers; the difference between collars and the traverse and gallery, consists in this, that the latter are made by the besiegers, and the former by the besieged. They are covered with ropes, huddles, and earth, raised 2 feet above the bottom of the ditch; which rising serves instead of a parapet, with loopholes in it.

**COFFRE.** See COFFER.

**COGNIZANCE.** Judicial notice, trial, judicial authority. In a military sense, implies the investigation to which any person or action is liable. During the suspension of civil authority, every offence comes under military cognizance, is subject to military law, and may be proceeded upon according to the summary spirit of its regulation. Hence, a drumhead court-marital is the strongest instance of military cognizance.

**COHORT.** In Roman antiquity, a name given to part of the Roman legion, comprehending about 600 men.

**COINS.** In gunnery, are a kind of wedges to lay under the breech of a gun, to raise or depress the metal.

**COLLET.** Fr. that part of a cannon which is between the astragal and the muzzle.

**COLONEL.** The commander in chief of a regiment, whether of horse, foot, dragoons, or artillery; but in France, Spain, and some other southern nations, the colonels of horse are called Maîtres de Camp; in Germany, and most northern nations, they are called Rittmeister. Colonels of foot in the English army take place, and command one another, according to the seniority of their regiments, and not of their commissions; but those of horse, on the contrary, according to the dates of their commissions.

**COLONEL of horse,** who is the first officer of the regiment; hence his attention ought to be given to keeping the regiment
complete, to have it composed of both men and horses fit for service, and to take particular care to have them well exercised and taught the different evolutions; to be able on all occasions to form themselves according to the ground, or manner in which they may attack, or be attacked.

**Colonel of Foot or Infantry.** His functions are more extensive than those of the cavalry, as the infantry are employed to more different purposes. A colonel of infantry should understand something of fortification, and be well acquainted with field engineering. He cannot be too careful to maintain union and harmony among his officers; and, to succeed in this, he must acquire their esteem and confidence, and make himself to be respected. The true way to succeed in this, is to keep up subordination with unalterable firmness; to do justice to every one, to employ all his credit to procure favors to the corps in general, and to the officers in particular, without giving signs of the health, comfort, and contentment of his men.

**Colonel of Dragoons** is nearly connected with that of horse, to which word we refer the reader.

**Colonel of Artillery.** The commander of a battalion of artillery is one of the most laborious employments in war and peace, requiring the greatest ability, application, and experience. He is supposed to be a very able mathematician and engineer, to be thoroughly acquainted with the powers of artillery, to understand the attack and defense of fortifications in all the different branches; to be able on all occasions to form the artillery according to the ground or manner in which they may attack or be attacked; in short, he should be master of every thing belonging to that important corps.

**Colonel of Engineers,** should be a very able mathematician and mechanician, he should be master of fortification, and be correctly versed in the art of planning, constructing, attacking, and defending. See Engineer.

**Lieutenant Colonel.** is the second person in command of a regiment. Under his direction all the affaires of the regiment are conducted. His military qualifications should be adequate to the size and the importance of the corps in which he has the honor to serve.

**Colonel General of the French Infantry.** An appointment of great trust and authority, which was suppressed during the old government of France. A colonel-general was formerly entitled to the nomination of every commission and place of trust in the infantry. He could order courts-martial, and enforce the sentences awarded by them without interior reference; and he had a company in every regiment which was called the colonel-general’s company.

This appointment was created during the reign of Francis I. in 1544, and became an immediate gift of the king, under Henry III. in 1584.

There was likewise a colonel-general of the cavalry; which appointment was entrusted to two officers under the reign of Louis XIII. One commanded the French and the other the German cavalry.

The appointment of colonel-general of dragoons was created by Louis XIV. in 1668.

**Colonelle, Fr.** was formerly the first company in a French regiment. Madame la Colonelle is still the colonel’s wife.

**COLORS in the military art, are large silk flags fixed on half pikes, and carried by the ensigns when a battalion is encamped, they are placed in its front; but in garrison they are lodged with the commanding officer.**

The size of the colors to be 6 feet 6 inches long, and 6 feet deep on the pikes. The length of the pikes (spears and ferris included) to be 9 feet 10 inches. The cords and tassels of the whole to be of the standard color, mixed with gold or silver; silver for the infantry and cavalry; gold for the artillery, rifle corps, and engineers.

**Camp-colors, are a small sort of colors placed on the right and left of the parade of a regiment when in the field; one or two in each company; they are 6 inches square, and of the color of the facing of the regiment, with the number of the regiment upon them. The jacks to be 7 feet 6 inches long, except those of the quarter and rear-guard, which are to be 9 feet.** See Banner.”
Cornet, is an impalpable powder, and the finest red we know of: it serves for coloring the sections of masonry, the plans of houses, and all kinds of military buildings; as likewise their elevations; but then it is made of a paler color. It is also used for drawing red lines in plans, to represent walls. It is of a high price, but a little will go a great way. It must be mixed with a little gum-water.

Verdigrise, or sea-grease, used in drawings, is either liquid in small phials, or mixed in little pots or shells, &c. It serves to color wet ditches, rivers, seas, &c., when liquefied with clear water: but when mixed with a little sea green, or gum water, it is either liquid in small phials, or mixed in little pots or shells, &c. It serves also to color the earth in fields, &c., to give a more natural color, and for some purposes, as when the works are unfinished from those that are completed. It serves also to color the trenches of an attack.

Indigo, is a fine yellow gum. It may be dissolved in water, but requires no other gum; it serves to color all projects of works; as likewise when the works are unfinished from those that are complete. It serves also to color the trenches of an attack.

Ledge, in small cakes, and very cheap; it serves to color iron, and roofs of buildings which are covered with slates; it must be well ground upon a smooth stone or glass, and mixed with a little gum-water.

Prussian blue, is a kind of a friable substance of an exceeding fine blue: it is used to represent the color of blue cloth in drawing encampments, battles, &c. It must be well ground, and mixed with a little gum-water.

Smalt, also a good sort of blue, and may be used for the same purposes.

Ultramarine, is an impalpable powder, and of a very delicate sky-blue. It is a color of high price.

Umbra, a yellowish brown color in powder: when it is mixed with gum-water, it serves to color dry ditches, sand, and all kinds of earth. By mixing a little red ink with it, it will make a wood color.

If some tobacco-leaves be steeped in clear water for several hours, and filtered through a woolen cloth, or brown paper, with a little red ink mixed with it, it will make the best earth or wood color, as lying smoother than any other.

Gum-water, is best when it is made some time before it is used: for which purpose take some gum arabic and steep it in clear water for some hours, till it is quite clear; then strain it through a woolen cloth or brown paper, and preserve it in phials, well stopped, till wanted.

Columns, in the art of war, a long, deep file of troops or baggage. The advantages and disadvantages of columns are so numerous, that we shall only mention, that columns ought to be able to form near the enemy; and in such a position, as not to suffer much from the artillery; that their motions be quick, so as not to suffer much during the operation; and that the divisions, in short, which compose each column, be so arranged as to afford each other a mutual defense and assistance, in case they should be attacked.

*COMBAT, a battle or duel. Anciently, it was not uncommon for contending powers to adjust their disputes by single combat, when each party chose for itself a champion who contended the point in presence of both armies.

COME-in, soldiers are said to come in, as volunteers, recruits, &c., when invited to join any particular standard.

COME-over, when men desert from an enemy, and join the army that opposes them, they are said to come over. This term is opposed to go over.

COME-to, to join with, to bring help. "They marched to Welles, where the Lord Audley, with whom their leaders had before secret intelligence, came to join them," English History.

COME-up, to overtake. To come up with an enemy, is a military phrase much in use.

COME-ing, Fr. a shell of extreme magnitude, which takes its name from the person who originally invented it.

COMMAND, generally called the word of command, is a term used by officers in exercise, or upon service.

COMMAND, in militia matters. All commands fall to the eldest in the same circumstances, whether of horse, dragons, artillery, foot, or marines.

COMMANDE, a rope made use of in boats and pinnaces.

COMMAND, in fortification, are:

A command in front, when any eminence is directly facing the work which it commands.

A command in rear, when any eminence is directly behind the work which it commands.

A command by enfilade, when an eminence is situated in the prolongation of any line of a work, and a considerable part of it may be seen from thence.
COMMANDANT, is that person who has the command of a garrison, fort, cas- tile, regiment, company, &c. called also commander.

COMMANDEMENT, Fr. in a military sense, means any spot which is higher than another. A commandment is called simple, when the difference between two heights is only 9 feet. It is called double, when the difference is 18 feet; triple, when 27, and so progressively, taking 9 feet invariably, for the height of each commandment. A commandment may be considered in three lights. In front, in enfilade, and in reverse. The commandment in front, or what you see all the persons who are employed in protecting a work; in enfilade, when you only see them from a flank; and in reverse, when you see them obliquely from behind.

COMMANDING-ground, implies a military sense, a rising ground which overlooks any post, or strong place. There are, strictly speaking, three sorts of commanding grounds; namely,
- Front Commanding-ground, every height is called so, that lies opposite to the face of the post which plays upon its front.
- Enfilade Commanding-ground, or Curtain Commanding-ground, a high place, which, with its shot, covers all the length of a line to.

COMMANDERY, a certain benefice belonging to a military order. A body of the knights of Malta, were so called. They have now only a nominal existence.

COMMIS, Fr. Clerk or inferior person, who is employed in any of the French war-departments.

COMMISSAIRE, Fr. Commissary. This term was used in the old French service, to express a variety of military occupations. The following are the principal designations.

- Commissaire-général de l'arsenal, Commissary-general of the armories. His duties were correspondent to those of a quarter master, forge master, or agent for supplying an army with provisions and stores.
- Commissaire-général de la cavalerie, Fr. Commissary general of light cavalry.

COMMISSAIRE d'artillerie, Fr. Commissary of artillery. One commissary general superintended in each department of the ordinance, and had one of the three keys which belonged to the general magazine. This officer had the power of giving directions respecting the clemmissions and the general government of the magazines.

COMMISSAIRE provincial de l'arsenal, Fr. Provincial commissary attached to the ordnance.

COMMISSAIRE ordinaire d'artillerie, Fr. Commissary in ordinary attached to the ordnance. These were subordinate to the provincial commissaries, and were distributed among the navy, forts, and garrison towns.

COMMISSAIRES extraordinaires d'artillerie, Fr. Extraordinary commissaries attached to the ordnance. These formed the third class of commissaries under the monarchical government in France. They likewise did duty on board the king's ships, or in garrison towns.

COMMISSAIRE provincial de l'Arsenal de Paris, au département de l'île de France. Provincial commissary belonging to the arsenal in Paris. This officer received his commission from the grand master, in whose gift the situation lay, and had the exclusive privilege of bearing the prerogative of being the first in every alteration or movement that was made in the arsenal.

COMMISSAIRE général des gazetiers et saltpétreurs, Fr. Commissary general of gun-powder and saltpetre.

COMMISSAIRE général des finances, Fr. Commissary general of the Founderies.

COMMISSAIRES des guerres, Fr. Commissaries of the war departments or master masters general.

COMMISSAIRES ordinaires des guerres, Fr. Commissaries in ordinary, or deputy master masters. These were subordinate to the former, and were entrusted with the superintendence of hospitals, to see that proper provisions were procured for, and distributed among the sick. They likewise gave proper vouchers to account for the absence of soldiers, and regulated what number of extraordinary wagons should be furnished to the troops on marches.

COMMISSAIRE provincial des ordnances, Fr. Provincial or ordinary commissaries of war. Specific duties were attached to their appointments, the discharge of which was principally confined to the different provinces.

COMMISSAIRES des guerres entretenues dans l'hôtel des invalides, Fr. Commissaries of war, specifically attached to, and resident in the hotel des invalides. It was their duty to keep a regular oil, containing all the names of the different officers, non-commissioned officers, and soldiers who might be detached on garrison duty, &c. which return was made monthly by them to the secretary at war. Each commissary at every review or inspection of the corps of invalids, had particular directions to mark out those men who appeared capable of serving; and a regular return to that effect was made to the secretary at war.

COMMISSAIRE des vivres, Fr. Commissary of stores. The commissary of stores had several deputies, who acted immediately under, and were in every respect accountable to him for the management of their trust.

COMMISSAIRE général des fortifications, Fr. Commissary general of fortifications. This was a very important site;
ation during war, as it was the duty of
the commissary general to trace the lines
of circumspection, &c. at the siege; to
inspect upon the mode of attack and
defence, and to see, that the necessary
repairs were made.
Commissary, in military affairs,
is of various denominations, though gen-
erally a civil officer appointed to inspect
the musters, stores, and provisions for
the army. In war-time their number is
proportioned to the service required.
Commissary-general of the musters, or
muster-master general. He takes account
of the strength of every regiment as often
as he can; reviews them, sees that the
army are well mounted, and all the
men well armed and clothed. He re-
views and inspects the muster rolls, and
keeps a register of the strength of the army.
The British have created an inspector ge-
eral of cavalry, which answers every
purpose, in which that of muster master
general was intended.
Commissary-general of stores, a civil
officer in the artillery, who has the charge
of all the stores, for which he is account-
able to the office of ordnance. He is al-
lowed various other commissaries, clerks,
and conductors, especially in war-time.
Commissary of the train horses, a civil
director likewise of the artillery, who has
the inspection of all horses belonging to
the train, the hospital, and the bakery;
having under him a number of conduc-
tors, drivers, &c.
Commissary of accounts is a respon-
sible person, who attends each army,
where the numbers are of sufficient im-
portance, with a proper establishment,
for the purpose of examining and con-
trolling accounts on the spot. All com-
missaries of accounts make returns of
their examination, and on these docu-
ments the controllers of the army ac-
counts found the best enquiry into the
expenditure which the nature of the sub-
ject admits of.
Commissary-general of provisions, has
the charge of furnishing the army in the
field with all sorts of provisions, forage,
&c. by contract; he must be very vigi-
lant and industrious, that the troops may
never suffer want. He has under him
various commissaries, store-keepers,
clerks, &c.
Commissary, in a military sense,
young situation or place which an individual
may hold in the army, or militia. In the
United States the President nominates
the officer, who enters upon service and
pay immediately on his acceptance, but
the appointee must be submitted to the
Senate, and approved by a majority,
before the commission issues.
Orders are issued in dif-
ferent modes in all the United States;
officers being elective by the line in some
states, as in Pennsylvania; they are ap-
pointed by the governor, as Maryland
Commission of array, in the reign
of Henry II. 1181, an assize of arms was
settled to the following effect. That
every person possessed of a knight's fee,
was to have a coat of mail, an helmet, a
shield, and a lance, and as many of these
as he had fees. Every free layman that
had in goods or rents to the value of 10
marks, was to have the same arms; and
such as had to marks were to have a les-
sor coat of mail, an iron cap, and a lance;
the two last of which with a sword
were assigned for the arms of burgesses,
and all the freemen of boroughs. These
arms were all to be provided before the
feast of St. Hilary next following.
To enforce these regulations, it was
customary for the time, at certain seasons
of the year, to issue commissions to ex-
perienced officers, to draw out and array
the first men for service in each county,
and to march them to the sea coasts, or
to such other quarters of the country as
were judged to be most in danger. Of
these commissions of array, there are many
hundreds in the Gascon and French rolls
in the tower of London, from the 16th of
Henry III. to the reign of Edward IV.
The form of the ancient commissions of
array may be seen in Rushworth's histori-
ical collection published in 1649. These
commissions were again attempted to be
revived by Charles I. but they were deter-
ned illegal and unconstitutional by the parlia-
ment.
Non-commissioned, applies to that
particular class of men who act between
what are called the rank and file of a bat-
talion, and the commissioned or warrant
officers. See SERJEANTS.
Committee, a select number of
persons to whom the more particular con-
sideration of some matter is referred,
and who are to report their opinion to the
court, &c. of which they are members.
Communication, in fortifica-
tion signifies all sorts of passages, or ways
which lead from one work to another.
The best, and indeed the only good com-
munications are those which the besieger
cannot annoy, or interrupt by his fire.
The obstrue defence of a work is ren-
dered almost impracticable, if you are
destitute of good communications. Sub-
terraneous galleries, colts, or caponiers,
slopes made on the outside of gorges, may
be termed communications. When the
ditches are filled with water, floating
bridges, &c. serve as communications.
Compagnie, a room or cabin
belonging to the chief of a galley.
Compagnie-franches, Fr. free corps
or companies, which during the old go-
vernment of France, were put upon a
certain establishment in war time. The
Austrians and Prussians had free corps in
the seven years war; there were some in
France at the beginning of the revolution,
but they were more fatal to friends than
enemies, and utterly destitute of dis-
cipline.
Company, in a military sense,
A company consists of 200 men, and sometimes by corporals for very ten men and a company consists of 120. In the Austrian service its own kind; therefore their operations of its own kind. The demi-lance, a detached army, either formed in the shape of balls, which when cold will be sufficiently hard to be fired from a small mortar. This composition answers for fortification.

### Bengal Light

**First Composition.**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>lbs. oz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saltpetre</td>
<td>7 0</td>
</tr>
<tr>
<td>Sulphur</td>
<td>1 12</td>
</tr>
<tr>
<td>Orpiment</td>
<td>0 1</td>
</tr>
</tbody>
</table>

**Second Composition.**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>lbs. oz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saltpetre</td>
<td>0 8</td>
</tr>
<tr>
<td>Sulphur</td>
<td>0 4</td>
</tr>
<tr>
<td>Orpiment</td>
<td>0 1</td>
</tr>
</tbody>
</table>

**Light Balls.**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>40 parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitre</td>
<td></td>
</tr>
<tr>
<td>Sulphur</td>
<td></td>
</tr>
<tr>
<td>Antimony</td>
<td></td>
</tr>
<tr>
<td>Pitch</td>
<td>3</td>
</tr>
</tbody>
</table>

This composition to be carefully fused, and cast into the shape of balls, which when cold will be sufficiently hard to be fired from a small mortar.

### Composition for Smoky Putty

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>6 parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitre</td>
<td></td>
</tr>
</tbody>
</table>

This composition when intimately mixed, to be rammed into wooden boxes, and piled in the usual way. This composition will answer for fortification.

### Chinese, or White Light

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>lbs. oz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mealed powder</td>
<td>1 0</td>
</tr>
<tr>
<td>Saltpetre</td>
<td>0 4</td>
</tr>
<tr>
<td>Flour of Sulphur</td>
<td>0 8</td>
</tr>
<tr>
<td>Linseed oil</td>
<td>1 2 pint.</td>
</tr>
</tbody>
</table>

**Composition to fill cases for setting fire to Fascine Batteries.**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>lbs. oz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mealed powder</td>
<td>1 4</td>
</tr>
<tr>
<td>Saltpetre</td>
<td>0 6</td>
</tr>
<tr>
<td>Sulphur</td>
<td>1 8</td>
</tr>
</tbody>
</table>

All dry compositions must be well mixed; first by the hands, and then passed several times through fine hair sieves, that the ingredients may be thoroughly incorporated. In mixing compositions which require fire, the greatest precautions are necessary, particularly in those where gunpowder enters. The dry parts of the composition may in general be mixed together first, and put by degrees into the cauldron, while the other ingredients are fluid, being well stirred all the time of putting in. When the dry ingredients are inflammable, the cauldron must not only be taken off the fire, but the bottom must be dipped in water, to prevent the possibility of accident while mixing them.

### Carcasses

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosin</td>
<td>6</td>
</tr>
<tr>
<td>Pitch</td>
<td>6</td>
</tr>
<tr>
<td>Beeswax</td>
<td>1</td>
</tr>
</tbody>
</table>

**For Fire Balls, 1794.**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>lbs. oz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosin</td>
<td>5 8</td>
</tr>
<tr>
<td>Sulphur</td>
<td>1 8</td>
</tr>
<tr>
<td>Alum powder</td>
<td>0 4</td>
</tr>
<tr>
<td>Linseed oil</td>
<td>1 pint.</td>
</tr>
<tr>
<td>Oil of spike</td>
<td>1 pint.</td>
</tr>
</tbody>
</table>
of offensive or defensive operation. It must be understood, that officers are never to act in conjunction with other forces, however much divided, at any given point of the line of ordnance. This post is only in the hands of the officers belonging to the same corps in the French service formerly employed under the title of ordnance. This post is only in the hands of the officers belonging to the same corps in the French service.

A COMPTROLLER of the artillery, inspects the musters of the artillery, makes the pay-list, takes the account and remits of stores, and is accountable to the Comptroller-General of the French forces. This post is only in the hands of the officers belonging to the same corps in the French service formerly employed under the title of ordnance. This post is only in the hands of the officers belonging to the same corps in the French service.

To CONCERT, in a military sense, is to digest, arrange, and dispose matters in such a manner, that you may be able to conduct the army in conjunction with other forces, however much divided, at any given point of offensive or defensive operation.

CONDUCTORS, are assistants to the Commissary of stores, to conduct depots, or magazines, from one place to another; they have also the care of the ammunition wagons in the field; they report to the Commissary, and are under his command.

CONFEDERATE Troops. Troops of different nations united together in one common cause against an enemy. Hence the league by which they are so engaged, is called a confederacy. The same as coalition, the power of Europe coalesced in 1791, to partition France, and were defeated; there were several other coalitions since, which have ended in the subjugation of them all.

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CONFIDENCE, in a military sense, implies an explicit reliance upon the skill, courage, &c. of an individual. Next to a perfect knowledge of military tactics, the key of securing the confidence of the soldiers is, perhaps, one of the surest means of becoming successful in war. There are instances, indeed, which prove that many victories have been gained by men who had the entire confidence of their army, without being remarkable for much military knowledge; whilst on the other hand, battles have been lost by the most celebrated generals, because they did not possess the good opinion of their men. When confidence and military science go together, an army must be unfortunate not to succeed in the most desperate enterprise.

CONFLICT, See COMBAT.

CONSCRIPT, conscriptus, a term applied by the French to gather to a limited or specified place for the purpose of conducting depots, or magazines, from one place to another; they have also the care of the ammunition wagons in the field; they report to the Commissary, and are under his command.

CONSCRIPTS, men raised to recruit the French armies. In Bohemia and Hungary, all men capable of bearing arms are enregistered, and must march whenever there is occasion for their services. The conscriptists in France have been raised during the present war upon similar principles.

The militia of Great Britain come under the appellation, with this difference, that the men are raised by ballot, and do not march out of their native country, unless they be voluntarily disposed to do so. In a republic every man is a soldier, and the word means must have his name written on the militia roll.

CONSEILLE-de-guerre, Fr. a council of war, at which the French king and his minister sat to determine upon military matters, both by sea and land, but it likewise meant a general or regimental court martial.

CONSIGNE, Fr. parole or counter-sig.

It likewise means, when used in the masculine gender, a person formerly paid or allowed to serve under the militia establishment, and who, being suspected of being deserted serjeants, corporals or drummers, may likewise be apprehended.

CONGLOMERATE, to gather together, to assemble in a knot.

CONGLOMERATE, to gather together, to assemble in a knot.

CONGRESS, in military and political affairs, is an assembly of commissioners, deputies, envoys, &c. from several powers meeting to agree on terms for a general pacification, or to concert means for their common good. A committee of the American Congress conducted the war during the first years of the revolution.

CONSTABLE, chief. A person employed under the militia establishment to collect fines.

High Constable and Marshall, were of
The title of constable or all the feudal governments of Europe. to strengthen it, so that it may receive no say on military law, explains the original tary art, implies officers of considerable weight and dignity, not only in France, but throughout all the feudal governments of Europe. The title of constable or comes stabili, according to the ingenious author of an essay on military law, explains the original nature of this office, which was that of commander of the cavalry, and as these once constituted the principal strength of the imperial or royal armies, this officer became naturally the commander in chief of those armies. The office of marshal appears originally to have been of a much inferior nature, the person who exercised it being the actual superintendent of the stables, or chief of the equerries, whose duty was to furnish the provender for the horses, and to oversee their proper management. But in process of time this office grew into high consideration, and the marshal subordinate only to the constable, became the second in command of the armies, and in the absence of the latter supplied his place. See Marshall.

The powers of the constable as a field officer, were extremely ample and dignified. The constable was subordinate only to the king in the command of the army; and even when the king was actually in the field, his efficient command of the troops seems to have been in this officer, and all the general orders were issued jointly in the sovereign's name and in the constable's.

CONSUL. The person invested with the consular power.

Consul chief, or premier Consul, Fr. chief magistrate of a state, the first or. The first or premier Consul, Fr. chief magistrate of a state, each bearing the title of consul, according to the constitution of France, in 1799, the chief consul commanded, directed, and superintended all the establishments of the country, and whenever it was judged expedient led the armies into battle. Bona parte, was appointed chief consul; but soon after emperor.

Consort, relating, or appertaining to the consort.

CONSULATE, a civil and military power which was originally instituted by the Romans, on the extinction of their kings in Tarquin the Proud. It has been revived in France, and was the principal feature of her last constitution.

CONSULSHIP. The office of consul.

Contact, a touching, or the point or points where one body touches another.

CONTINGENT, something casual or uncertain, that may or may not happen.

The contingent bill of a regiment, is an account of extra charges, which depend on the accidental situation or circumstances, which may attend any regiment in its due course of service. See Recruting.

Contreband, this term is applicable to various foreign communities which are either totally prohibited by the laws, or are subject to severe penalties and heavy duties.

Contramur, in fortification, is a wall built before another partition wall to strengthen it, so that it may receive no damage from the adjacent buildings.

Contravallation, in military art, implies a line formed in the same manner as the line of circumvallation, to defend the besiegers against the enterprises of the garrison: so that the army, forming a siege, lies between the lines of circumvallation and contravallation. The trench of this is towards the town, at the foot of the parapet, and is never made but when the garrison is numerous enough to harass and interrupt the besiegers by sallies. This line is constructed in the rear of the camp, and by the same rule as the line of circumvallation, with this difference, that as it is only intended to resist a body of troops much inferior to a force which might attack the circumvallation, so its parapet is not made so thick, nor the ditch so wide and deep; 6 feet is sufficient for the ditch, and the ditch 4 feet broad, and 5 feet deep.

Amongst the ancients this line was very common, but their garrisons were much stronger than ours; for, as the inhabitants of towns were then almost the only soldiers, there were commonly as many troops to defend a place, as there were inhabitants in it. The lines of circumvallation and contravallation are very ancient, examples of them being found in histories of the remotest antiquity. The author of the military history of Louis le Grand pretends however, that Caesar was the first inventor of them; but it appears from the chevalier de Folard's treatise on the method of attack and defence of places, used by the ancients, how little foundation there is for this opinion. This author asserts with great probability on his side, that these lines are as ancient as the time in which towns were first surrounded with walls, &c., in other words, were fortified.

Contreband, Fr. See Contreband.

Faire la Contrebande, Fr. to smuggle.

Contrebandier, Fr. a smuggler.

Contrefort, Fr. Brick-work which is added to the revetments of a rampart on the side of the terre-pleine, and which is equal to its height. Contreforts are used to support the body of earth with which the rampart is formed. They are likewise practised in the revetments of counter-scarps, in gorges and demi-gorges, &c. The latter are constructed upon a less scale than the former. It has been suggested by an able engineer in the French service, to unite contre-forts and consequently to strengthen them, by means of arches. Contre-forts likewise form a part of the construction of powder magazines, which are bomb proof.

Contremaître d'horsem, Fr. denotes
the figure or shape which is made by the oblique direction of the lines, or long sides of a horsetail or crownd work, whose branches widen as they approach any place.

CONTRIBUTION, in a military history, is an imposition or tax paid by countries who suffer the afflictions of war, to redeem themselves from being plundered and totally destroyed by the enemy; or when a bellicose prince, wanting money, undertakes an expedition against another country, and is either paid in provisions or in money, and sometimes in both.

CONTROL, controlled, or control, is properly a double register kept of acts, issues of the officers or commissioniners in the revenue service, &c., in order to ascertain the true state thereof.

CONTROLER, an officer appointed to control or oversee the accounts of other officers, and on occasions to certify whether or no things have been controlled or examined.

CONTROLES, Fr. See MUSTER-ROLLS.

CONTROLEURS des guerres, Fr. Muster-masters. This term was likewise applied to signify various other appointments belonging to the interior arrangement of the French army, viz. controleurs general d’artillerie, controleurs des hospitaux militaires. See SUPERINTENDANT of military hospitals.

CONTROLEUR général des vivres. See COMMISSARY-general of stores.

CONVALESCENT, recovering, returning to a state of health.

List of CONVALESCENTS, is a return made out by the surgeons belonging to a battalion, hospital, &c. to ascertain the specific number of men who may shortly be expected to do duty.

CONVENTION, a treaty, contract, or agreement between two, or more parties.

CONVERSION, is a military motion or maneuver, which turns the front of a battalion where the flank was, when the flank is attacked. The old method of conversion is now exploded, and the new method, which has superseded it; has received the name of counter-march, or changing front by counter-march; this is best effected in column; and is never attempted in line in the face of an enemy. For the manner of performing it and the bad effects of attempting it in the face of an enemy, see Am. Mil. Lit.

CONVOY, in military affairs, a detachment of troops employed to guard any supply of men, money, ammunition, provisions, stores, &c. conveyed in time of war, by land or sea, to a town, or army. A body of men that marches to secure anything falling into the enemy’s hands, is also called a convoy. An officer having the command of a convoy, must take all possible precautions for its security; and endeavor, before its march, to procure some good intelligence concerning the enemy’s out-parties. And as the commanding officer of the place from which the convoy is to march, and those of such other places as he is to pass by, are the most proper persons to apply to for assistance; he must therefore take such measures as will enable him to keep up a constant intercourse with them. The conducting a convoy is one of the most important and most difficult of all military operations.

CONVOYS. A wagon with four horses occupies about sixteen paces; a mile will therefore hold about 117 wagons; but allowing a short distance between each wagon in travelling, a mile may be said to contain 100 wagons. Wagons in convoy may travel from one to two miles per hour, according to the roads and other circumstances. A great object in convoys is to preserve the horses as much as possible from fatigue. For this purpose, if the convoy amounts to many hundred wagons, they must be divided into divisions of not more than 500 each. Should it consist of thousands, it will be advisable to divide them into grand divisions, and then again into subdivisions of 500 each; by this means, and the time of departure being calculated by the following rules, each division may remain at rest, till just before its time of movement, and which will prevent the necessity of the latter part of a large convoy being harassed for a considerable time before it begins to move.

Rule 1. To find the time in which any number of wagons may be driven off:
Divide the number of wagons by 100, and multiply by the time of travelling one mile.

Rule 2. To find the time in which any number of wagons will drive over any number of miles: To the time they take in driving off, add the time any one of the wagons takes to travel the distance.

The different divisions of the convoy should be numbered, and obliged each day to change the order of their marching. Whenever the progress of a train of wagons is arrested by the breaking down of any of one them, or other delay, all the wagons in the rear of the stoppage, should immediately drive up into the first open space, to as great a number as the open space will hold; this keeps the convoy together and better under the care of the escort.

The escort for a convoy should be divided into front, centre, and rear guards; beside the divisions for the flanks, which should never be beyond musquet shot, or at most 400 yards from each other. The whole escort should never be so separated that they could not be collected in an hour. Under proper precautions against an enemy, a convoy of any size cannot travel more than ten or fifteen miles per day.
COR, COR

forces, however divided, may act upon one principle and towards one end.

COOK, each troop or company has one, who are excused from other duties.

COPPER. No other metal is allowed to the magazines, or barrels of gunpowder.

COQUILLES à boulets, Fr. shells or missiles. They are made either of brass or iron; two are required for the casting of a cannon ball; but they never close so efficaciously as to prevent the liquid metal, which has been poured in, from running somewhat out of the part where they join. This entrance is called the heed, which is broken off to render the ball complete by round.

COREILLES, Fr. Large haversacks, which being filled with earth, and placed one by another along the parapet, serve to cover the besieged from the shot of the besiegers. Their usual dimensions are one foot and a half high, as much in breadth at the top, and eight or ten inches at the bottom. See GABION.

CORDE, Fr. Cord, in geometry and fortification, means a straight line which cuts the circumference into two parts, without running through the center.

CORDEAUX, Fr. A cord which is used in measuring ground. It is divided into toes, set, and inches, for the purpose of ascertaining with precision, the opening of angles and the extent of lines. In wet weather a small chain made of wire is substituted to prevent mistakes that would necessarily occur, from the cord becoming shorter or longer, according to the influence of the weather. The technical terms among French Engineers, are Manier le cordeau, Pender le cordeau, Travailleur au cordeau.

CORDON, in fortification, is a row of stones made round on the outside, and placed between the termination of the slope of the wall, and the parapet which stands perpendicular, in such a manner, that this difference may not be offensive to the eye; whence those cordons serve only as ornaments in walled fortifications.

The Cordons of the reinforcement of the rampart is often on a level with the terre pleine of the rampart. It has been observed in a late French military publication, that it might be more advantageously placed some feet lower; especially when there is a wall attached to the parapet, to shield the rounds from the enemy's fire.

CORN, in military history, is a chain of posts, or an imaginary line of separation between two armies, either in the field or in winter quarters.

CORIDOR, the covert way which is formed between the fossé and the parapet on the counterscarp. See COVERT-way. This word is becoming obsolete as a military term, and is chiefly confined to domestic buildings.

CORNAGE, an ancient tenure, which obliged the land-holder to give notice of an invasion by blowing a horn.

CORNE, Fr. See HORNS.

CORNET, in the military history of the ancients, an instrument much in the nature of a trumpet; when the cornet only sounded, the ensigns were to march alone without the soldiers; whereas, when the trumpet only sounded, the soldiers were to move forward without the ensigns. A troop of horse was so called.

CORNET, in the military history of the moderns, the junior commissioned officer in a troop of horse or dragoons, subordinate to the captain and lieutenants, equivalent to the ensign amongst the foot. His duty is to carry the standard, near the centre of the front rank of the squad.

CORNETTE, Fr. An ornamental work which in ancient times, served to distinguish French officers who were high in command. It was worn by them on the top of their helmets. It likewise must a royal standard, and was substituted in the room of the Pennon Royal. The cornette-blanche was only unfurled when the king joined the army; and the persons who served under it were princes, noblemen, marshals of France, and old captains, who received orders from the king direct.

CORNETTE, Fr. See CORNET.

The CORNETTES of CORNETs, of the colonel general of cavalry, in the old French service, as well as those attached to the quarter-master general and commissary general, ranked as lieutenants, and the cornettes of la colonelle general des dragons ranked as youngest lieutenants, and commanded all other cornets.

CORNET, Fr. It was likewise the term used to signify the standard peculiarly appropriated to the light cavalry. Hence cornettes and troops were synonymous terms to express the number of light horse attached to an army. The standard so called was made of flax or glazed silk, one foot and a half square, upon which the arms, motto, and cypher of the officer who commanded the cavalry were engraved. A sort of scarf or long piece of white silk, (the old French colors) was tied to the cornette whenever the cavalry went into action, in order to render the standard conspicuous, that the men might rally round it.

CORNISH ring, in gunnery, the next ring from the muzzle backwards. See CANNON.

CORFORAL, a rank and file man with superior pay to that of common soldiers, and with nominal rank under a sergeant. He has charge of one of the squads of the company, places and relieves sentinels, and keeps good order in the guard. He receives the word of the interior.
Corps de garde. Fr. an interior post which is sometimes covered in, and at other times in the open air, garnished and defended by troops who are occasionally relieved, and whose immediate duty is to prevent a post of greater consequence from being surprised. Corps de garde, in the French acceptation of the words, signifies not only the place itself, but likewise the men who are stationed to protect it.

Corps de garde avancés. Fr. These posts are occupied by cavalry and infantry, according to the exigency of the service, and the peculiar nature of the ground. When a camp is secured by entrenchments, and has one line of defence, the corps de garde, or advanced post of the cavalry is on the outside of the line, and each part has its quarter and main guard. These guards are always within sight of the same line, unless the unevenness of the ground should obstruct the view. The quarters guards or petits corps de garde are more in front, but still in sight of the main guard, and the vériété is still further in the rear for the security of both.

Corps de bataille. Fr. the main body of an army, which marches between the advanced and the rear guard.

Corps de reserve. See Rear Guard.

Correspond, an officer or soldier who corresponds with the enemy, is liable of capture, by the articles of war.

Corsair, in naval history, a name given to the piratical cruisers of Barbary, who, frequently plunder the merchant ships of countries with whom they are at peace.

Corselet, a little cuirass; or according to others, an armor, or coat made to cover the whole body, anciently worn by the pikemen, who were usually placed in the fronts and flanks of the battle, for the better resisting the enemy's assaults, and guarding the soldiers posted behind them.

Cosècant, the secant of an arch which is the complement of another to 90°.

Cosine, the right sine of an arch which is the complement of another to 90°.

Cosssacs, in military history, a wild irregular people, who inhabit the Ukraine, and live by plunder and piracy, in small vessels on the Black Sea. A scythe fixed on the end of a pole was their ancient weapon. They are now a regular militia, and use the same arms as the Creats and Paramours.

Cotangent, the tangent of an arch which is the complement of another to 90°.

Côte extérieure du poligone, Fr. exterior side of the polygon. The line which is drawn from the capital of one bastion to another.

Côte intérieure du poligone, Fr. interior side of the polygon. The line which is drawn from the angle of one sarge to the angle of the fort most contiguous to it. See sides of the Polygon.

Council of War, in military affairs, is an assembly of principal officers of an army or fleet, called by the general or admiral who commands, to concert measures for their conduct.

Counter-Approaches, lines of trenches made by the besieged, when they come out to attack the lines of the besiegers in form.

Counter-approach, a trench which the besieged make from their covert way; consisting then of a series of ravelins, in order to scour or enfilade the enemy's works.

Counter-Battery, a battery used to play on another in order to dismount the guns. See Battery.

Counter-brace. See Faussbrace.

Counter-forts, in fortification, are certain pillars and parts of the wall, distant from 15 to 20 feet one from another, which are advanced as much as may be in the ground, and are joined to the height of the cordon de voutes, to sustain the chemin de ronde, and the part of the rampart, as well as to fortify the wall, and strengthen the ground. See Batteries.

Counter-guards, in fortification, are small ramparts, with parapets and ditches, to cover some part of the body of the place. They are of several shapes, and differently situated. They are generally made before the bastions, in order to cover the opposite flanks from being seen from the covert way; consisting then of a faces, making a salient angle, and Parallel to the faces of the bastion. They are sometimes made before the ravelins. See Fortification.

Counter-round. See Rounds.

Counter-mines. See Mines.

Counter-trenches. See Siege.

Counter-working, is the raising of works to oppose those of the enemy.

Counter-swallow's-tail, in fortification, is a kind of an out-work very much resembling a single tenaille.

To countermand, is to give contrary orders to those already given; to contradict former orders, &c.

Counter-mire, a wall built up behind another in order to increase the strength of any work.

Counter-march, a change by wings, companies, subdivisions, sections, or files, whereby those who were on the right take up the ground originally occupied by the left; generally used in changing the front. See March.

Counterscarp, in fortification,
is properly the exterior talus, or slope of the ditch on the further side from the place, and facing it. Sometimes the covert way and glacis are meant by this expression. See Fortification.

COUNTERSIGN, in a general acceptance of the term means any particular word, such as the name of a place or person, which, like the parole, is exchanged between guards, entrusted to persons who visit military posts, or the rounds, or have any business to transact with soldiers in camp or garrison. It ought always to be given in the language most known to the troops.

COUNTERVALLATION, or line of countervallation, a trench with a parapet, made by the besiegers, between them and the place besieged, to secure them from the sallies of the garrison; so that the troops which form the siege, are encamped between the lines of circumvaliation and countervallation. When the enemy has no army in the field, these lines are useless.

COUP-DE-MAIN, in military affairs, implies a desperate resolution in all small expeditions, of surpris, &c. The favorable side of the proposed action must exist somewhere; for if what may happen, arrive, or fall out, is chiefly thought upon, it will, at the very best, no only greatly discourage, but, in general, it will produce a total failure. The very name of an expedition implies risk, hazard, precarious warfare, and a critical but desperate operation, or coup-de-main.

COUP-d'oeil, Fr. in a military sense, signifies that fortunate aptitude of eye in a general, or other officer, by which he is enabled at one glance on the ground or on a map to see the weak parts of an enemy's country, or to discern the strong ones of his own. By possessing a ready coup d'oeil, a general may surmount the greatest difficulties, particularly in offensive operations. On a small scale this faculty is of the greatest utility. Actions have been recovered by a sudden conception of different openings upon the enemy, which could only be ascertained by a quick and ready eye, during the rapid movements of opposing armies. See Art. 103, Art. 106 articles Reconnoitring, and COUP d'oeil.

COUPURE, in fortification, are passages, sometimes cut through the glacis, of about 12 or 15 feet broad, in the re-entering angle of the covert way, to facilitate the sallies of the besieged. They are sometimes made through the lower curtain, to let boats into a little haven built on the reentrant angle of the counter-scarp of the out works.

COURANTIN, Fr. a squib; a term used among trench artificers.

COURCON, Fr. a long piece of iron which is used in the artillery, and serves to counterpoise or tighten cannon.

COURIER, in a military sense, means a messenger sent post, or express, to carry dispatches of battles gained, lost, &c. or any other occurrences that happen in war.

COURIERS des vivres, Fr. were two active and expert messengers attached to the French army, whose duty consisted wholly in conveying packets of importance to and from, and in taking charge of pecuniary remittances.

COURONEMENT, or Couronnement, in fortification, implies the most exterior part of a work when besieged.

COURSER. See CHARGER.

COURSER, Fr. a gun which was formerly placed in the forecastle of a galley for the purpose of firing over the ship's back. The weight of its ball was from 33 to 34 lb.

COURT-martial, a court appointed for the investigation and subsequent punishment of offences in officers, under-officers, soldiers, and sailors; the powers of which are regulated by the articles of war for the government of the armies of the United States, passed in the year 1806.

Art. 64. General courts martial may consist of any number of commissioned officers from five to thirteen inclusively, but they shall not consist of less than thirteen, where that number can be convened, without manifest injury to the service.

Art. 65. Any general officer commanding an army, or colonel commanding a separate department, may appoint general courts martial whenever necessary. But no sentence of a court martial shall be carried into execution until after the whole proceedings shall have been laid before the officer ordering the same, or the officer commanding the troops for the time being; neither shall any sentence of a general court martial, in time of peace, extending to the loss of life, or the discharge of a commissioned officer, or which shall, either in time of peace or war, respecting a general officer, be carried into execution, until after the whole proceedings shall have been transmitted to the secretary of war, to be laid before the President of the United States, for his confirmation or disapproval and orders in the case. All other sentences may be confirmed and executed by the officer ordering the same, or the commanding officer for the time being, as the case may be.

Art. 66. Every officer commanding a regiment, or corps, may appoint, for his own regiment or corps, courts martial, to consist of three commissioned officers, for the trial and punishment of offences, not capital, and decide upon their sentences. For the same purpose all officers, commanding any of the garrisons, forts, barracks, or other places where the troops consist of different corps, may assemble courts martial, to consist of three commissioned officers, and decide upon their sentences.
Art. 67. No garrison, or regimental court martial shall have the power to try capital cases, or commissioned officers; neither shall they inflict a fine exceeding one month's pay, nor imprison, nor put to hard labor, any non-commissioned officer or soldier, for a longer time than one month.

Art. 68. Whenever it may be found that any and necessary to the public service, the officers of the marine shall be associated with the officers of the land for the purpose of holding courts martial and trying offenders belonging to either of the forces, or in such cases the orders of the senior officers of either corps who may be present and duly authorized, shall be received and obeyed.

Art. 69. The judge advocate, or some person deputed by him, or by the general, or officer commanding the army, detachment, or garrison, shall preside in the name of the United States, but shall so far consider himself as counsel for the prisoner, after the said prisoner shall have made his plea, as to object to any leading question to any of the witnesses, or any question to the prisoner, the answer to which might tend to exculpate himself; and administer to each member of the court, before they proceed upon any trial, the following oath, which shall also be taken by all members of the regimental and garrison courts martial:

"You A. B. do swear, that you will well and truly try and determine, according to evidence, the matter now before you, between the United States of America, and the prisoner to be tried, and that you will duly administer justice, according to the provisions of "An act establishing rules and articles for the government of the armies of the United States," without partiality, favor, or affection; and if any doubt shall arise, not explained by said articles, according to the custom of war, in like cases; and you do further swear, that you will not divulge the sentence of the court until it shall be published by the proper authority; neither will you disclose or discover the vote or opinion of any particular member of the court martial, unless required to give evidence therein as a witness, by a court of justice, in a due course of law. So help you God."

And as soon as the said oath shall have been administered to the respective members, the president of the court shall administer to the judge advocate, or person officiating as such, an oath in the following words:

"You A. B. do swear, that you will not disclose or discover the vote or opinion of any particular member of the court martial, unless required to give evidence therein as a witness, by a court of justice, in due course of law. Nor divulge the sentence of the court to any but the proper authority, until it shall be duly disclosed by the same. So help you God."

Art. 70. When any prisoner arraigned before a general court martial shall, from obstinate and deliberate design, stand mute or answer foreign to the purpose, the court may proceed to trial and judgment as if the prisoner had regularly pleaded not guilty.

Art. 71. When a member shall be challenged by a prisoner, he must state his case of challenge, of which the court shall, after due deliberation determine the relevancy or validity, and decide accordingly; and no challenge to more than one member at a time shall be received by the court.

Art. 72. All the members of a court martial are to have with decency and calmness; and in giving their votes, are to begin with the youngest in commission.

Art. 73. All persons who give evidence before a court martial, are to be examined on oath or affirmation in the following form:

"You swear or affirm (as the case may be) the evidence you shall give to be true, as if the prisoner had regularly pleaded not guilty. So help you God."

Art. 74. On the trials of cases not capital, before courts martial, the deposition of witnesses not in the line or staff of the army, may be taken before some justice of the peace, as read in evidence; provided, the prosecutor and person accused are present at the taking the same, or are duly notified thereof.

Art. 75. No officer shall be tried but by a general court martial, nor by officers of inferior rank, if it can be avoided. Nor shall any proceedings or trials be carried on excepting between the hours of eight in the morning, and three in the afternoon, excepting in cases, which, in the opinion of the officer appointing the court martial, require immediate example.

Art. 76. No person whatsoever shall use any menacing words, signs, or gestures, in presence of a court martial, or shall cause any disorder or riot, or disturb their proceedings, on the penalty of being punished at the discretion of the said court martial.

Art. 77. Whenever any officer shall be charged with a crime, he shall be arrested and confined in his barracks, quarters, or tents, and deprived of his sword, by the commanding officer. And any officer who shall leave his confinement before he shall be set at liberty by his commanding officer, or by a superior officer, shall be cashiered.

Art. 78. Non-commissioned officers and soldiers, charged with crimes, shall be confined until tried by a court martial, or released by proper authority.

Art. 79. No officer or soldier who shall be put in arrest, shall continue in confinement more than eight days, or until
such time as a court martial can be assembled.

Art. 80. No officer commanding a guard, or provost martial, shall refuse to receive or keep any prisoner committed to his charge by an officer belonging to the forces of the United States; provided the officer commanding, shall, at the same time, deliver an account in writing, signed by himself, of the crime with which the said prisoner is charged.

Art. 81. No officer commanding a guard, or provost martial, shall presume to release any person committed to his charge, without proper authority for so doing, nor shall he suffer any person to escape, in the penalty of being punished for it by the sentence of a court martial.

Art. 82. Every officer or provost martial, whose charge prisoners shall be committed, shall within twenty-four hours after such commitment, as soon as he shall be relieved from his guard, make report in writing, to the commanding officer, of their names, their crimes, and the names of the officers who committed them, on the penalty of being punished for disobedience or neglect, at the discretion of a court martial.

Art. 83. Any commissioned officer convicted before a general court martial of conduct unbecoming an officer and a gentleman, shall be dismissed the service.

Art. 84. In cases where a court martial may think it proper to sentence a commissioned officer to be suspended from command, they shall have power also to suspend his pay and emoluments from the same time, according to the nature and heinousness of the offence.

Art. 85. In all cases where a commissioned officer is cashiered for cowardice or fraud, it shall be added in the sentence, that the crime, name, and place of abode, and punishment of the delinquent, be published in the newspapers, in and about the camp, and of a particular state from which the offender came, or where he usually resides, after which it shall be deemed scandalous for an officer to associate with him.

Art. 86. The commanding officer of any post or detachment, in which there shall be a number of officers adequate to form a general court martial, shall, in cases which require the convenance of such a court, report to the commanding officer of the department, who shall order a court to be assembled at the nearest post or detachment, and the party accused, with a sufficient number of witnesses, to be transmitted to the place where the said court shall be assembled.

Art. 87. No person shall be sentenced to suffer death but by the concurrence of two thirds of a general court martial, nor except in the cases herein expressly mentioned; nor shall more than fifty lashes be inflicted on any offender, at the discretion of a court martial, and no officer, non-commissioned officer, soldier, or follower of the army, shall be tried a second time for the same offence.

Art. 88. No person shall be liable to be tried and punished by a general court martial for any offence which shall appear to have been committed more than two years before the issuing of the order for such trial, unless the person by reason of having absented himself, or some other manifest imputation, shall not have been amenable to justice within that period.

Art. 89. Every officer authorized to order a general court martial, shall have power to pardon or mitigate any punishment ordered by such court, except the sentence of death, or of cashiering an officer; which in the cases where it is with the authority (by article 85) to carry them into execution, he may suspend until the pleasure of the President of the United States can be known; which suspension, together with copies of the proceedings of the court martial, the said officer shall immediately transmit to the President for his determination. And the colonel or commanding officer of the regiment or battalion, where any regimental or garrison court martial shall be held, may pardon or mitigate any punishment ordered by such court to be inflicted.

Art. 90. Every judge advocate, or person officiating as such, at any general court martial, shall transmit, with as much expedition as the opportunity of time and distance of place can admit, the original proceedings and sentence of such court martial, to the secretary of war, which original proceedings and sentence shall be carefully kept and preserved in the office of the said secretary, to the end that the persons entitled thereto may be enabled, upon application to the said office, to obtain copies thereof.

The party tried by any general court martial, shall, upon demand therefor, made by himself, or by any person, or persons in his behalf, be entitled to a copy of the sentence and proceedings of such court martial.

The following section is extracted from the laws of Congress of 1808.

Sec. 10. And be it further enacted, That the officers, non-commissioned officers, musicians, and privates of the said corps, shall be governed by the rules and articles of war, which have been established by the United States in Congress assembled, or by such rules and articles as may be hereafter by law established; Provided nevertheless, That the sentence of general courts martial, extending to the loss of life, the discharge of a commissioned officer, or which shall respect the general officer, shall, with the whole of the proceedings of such cases, be laid before the President of the United States, who is hereby authorized to direct the same to be carried into execution, or otherwise, as he shall judge proper.

Court of inquiry, an assemblage of officers who are empowered to inquire
into the conduct of an officer, or to see whether there is ground for a court-martial, &c. Courts of inquiry cannot award punishment, but must report to the officer to whose order they were assembled. Courts of inquiry are also appointed to examine into the quality and distribution of military stores. See Articles of War, § 91 and 92.

A regimental Court-Martial cannot sentence to the loss of life or limb. The colonel or commanding officer approves the sentence of a regimental court-martial.

The colonel or commanding officer approves the sentence of a regimental court-martial, the governor, or other commanding officer of the garrison, approves the sentence.

Coverture, &c., see Curtain.

Costinnet à montanté, Fr., a bag formerly worn by a French soldier on his left side beneath the cross-belt. It hung upon hooks near the but of his musquet. It likewise signifies a wedge used to support the mortar in its frame.

Courtelas, Fr., see Courtes.

Couver, Fr., see Cover.

Couver-face, Fr., a term used by some engineers, and among others by Courlaux, Caborn, to express the counter-gard. This instruction has been given to cavalry officers, by a very able Tactician.

Cover, a term in war to express security or protection; thus, to land under cover of the guns, is to advance offensively against an enemy who dares not approach on account of the fire from ships, boats or batteries. It likewise signifies whatever renders any movement imperceptible; such as under cover of the night, under cover of a wood, &c. The gallery or corridor in fortification is however, particularly distinguished by the term Couvoir, covert way, because the glass of the parapet is its object.

Covert-way, in fortification, is a space of 5 or 6 fathoms on the border of the ditch towards the country, covered by a rising ground, which has a gentle slope towards the field. This slope is called the glacis of the covert-way. See Fortification.

Second covert-way, or as the French call it avant couvoir covert, is the covert-way at the foot of the glacis. See Fortification.

Crab. See Gin.

Crane. An instrument made with ropes, pulleys, and hooks, by which great weights are raised.

Credits. See Debits and Credits.

Cremayle, in field fortification, is the covert-way at the foot of the parapet. In modern language, it is called the foot of the glacis, or the foot of the covert-way.

Redout en Cremayle, or Cremayle, are such as are constructed as above mentioned.

Cresset, any great light upon a beacon, light-house, or watch-tower.

Crette, in fortification, implies the earth thrown out of the ditch in a fortification, trench, &c. The most elevated part of a parapet or glacis.

Cresse en armes, Fr., a savage custom which is still preserved by the Turks and other uncivilized nations, whenever they go into action. It was formerly practised among the French, Spaniards, and the English, &c. The national exclamations were Montjoie and St. Dennis for
France. St. James for Spain, St. George for England, St. Malo or St. Yves for the Dukes of Brittany, St. Lambert for the principality of Liege, &c. The war whoop may likewise be considered in this light. It is still practised among the savages of America. See War-whop.

Every species of noise however is now exploded in Europe. When two armies are upon the point of engaging, a dead silence prevails, the eye and ear of the soldier are rivetted to the word of command; and when he comes into close contact with the enemy, nothing is heard besides the noise of drums, trumpets and cymbals, to which are added the discharge of ordnance and the fire of the musquetry.

In making any desperate assault, or in charging bayonet, or when one battalion is directly opposed to another, or squadrons to squadron, the French soldiers frequently use the cri des armes; the third and the Spaniards vociferate un aut. Silence and calmness in the soldier, with steadiness and observation in the officer, are nevertheless superior to such ungovernable effusions. The former must contribute to regularity, the latter seldom fails to create disorder.

CRIQUES, Fr. small ditches which are made in different parts of a ground, for the purpose of inundating a country, in order to obstruct the approaches of an enemy.

CROATS, in military history, light irregular troops so called; generally people of Croatia. They are ordered upon all desperate services, and their method of fighting is the same as the Pandours. They wear a short waistcoat, and long white pantaloons, with light boots, a cap greatly resembling the hussar cap. Their arms are a long firelock with rilled barrel, and short bayonet; a crooked hanger, and brace of pistols.

CROCUS, a calcined metal used by the soldiers to clean their musquets, &c. CROYX de St. Louis, Fr. The cross of St. Louis, a French order which was purely of a military nature. It was instituted by Louis, summoned the Great, in 1533.

In 1793 the number of grand crosses to be distributed in the French army was limited, with appropriate allowances, in the following manner.

445 Commandeurs and chevaliers. 13 grand crosses at 6000 livres, 13 commandeurs at 4000, 27 ditto at 3000, 25 chevaliers at 2000, 38 ditto at 1500, 106 ditto at 1000, 11 ditto at 500, 59 ditto at 300, 45 ditto at 200, 25 ditto at 150, 25 ditto at 100, 25 ditto at 500, 9 ditto at 250, and 4 ditto at 100.

The King was Sovereign Grand Master of the order. Land and sea officers wore it promiscuously. The cross consisted of an enamelled golden fleur de lis which was attached to the button hole of the coat by means of a small riband, crimson colored and watered.

On one side was the cross of St. Louis, with this inscription Ludovicum Magnos instituit, 1693; on the reverse side a blazing sword with the following words, Beatus virtutis, premium.

This is the only order which could be properly and strictly called military.

There were several others during the old French government, which we judge superfluous to the present work.

CROSS, the ensign or grand standard borne by the crusaders in the holy war. CROSS-de, in the art of war, is when the lines of fire of two or more adjoining sides of a field-redoubt, &c. cross one another; it is frequently used to prevent the enemy’s passing a defile. It may be two ways obtained: first, by constructing the redoubt with the face opposite the defile, tenanted; that is, forming a re-entering angle. The other way in, to defend the defile by 2 redoubts, whose faces command the passage, flanking each other at the same time.

Cross-bar shot, shot with iron bars crossing through them, sometimes standing 6 or 8 inches out at both sides; they are used at sea, for destroying the enemy’s rigging. At a siege they are of great service in demolishing the enemy’s palisading, &c.

Cross-barre, See Carriages.

Cross-bow, a missile weapon used to propel arrows, &c. previous to the use of gunpowder.

CROCHET, of cavalry. See Cross.

CROW, an iron bar used as a lever, in moving heavy ordnance, or carriages, &c.

CROWS-feet, or Catspaws, in the art of war, are 4 pointed irons, so made that what way so ever they fall, one point is always uppermost. The short ones are about 4 inches in length, and the long ones 6 or 7. The short ones are thrown on bridges, &c. and the long ones on the earth, both to incommode the cavalry, that they may not approach without great difficulty.

CROWN-work, in fortification, an out work that takes up more ground than any other. It consists of a large gorge, and two sides terminating towards the country in two demi-bastions, each of which is joined by a particular curtain, forming two half bastions and one whole one; they are made before the curtain, or the bastion, and generally serve to in-close, some buildings which cannot be brought within the body of the place, or to cover the town gates, or else to erect any a spot of ground which might be advantageous to the enemy. See Fortification.

CROWNED-horned-work, in fortification, a horn-work with a crown-work before it.

CROWS, in ancient military histo-
were of various uses and denominations, viz.:

**Crown**
- **Navel Crown**, corona navalis, given to a general who, without effusion of blood, had relieved an army invested or besieged by the enemy.
- **Naval Crown**, corona navalis, distributed to those who first should board an enemy's ship.
- **Camp Crown**, corona castrinensis, the reward of those who first passed the paliates of, and forced an enemy's camp.
- **Marlal Crown**, corona muralis, the recompense and mark of honor due to those who first mounted the breach at an assault of a besieged town.
- **Civic Crown**, corona civica; more esteemed than the preceding: it was the distinguishing mark of those who had saved the life of a Roman citizen in battle. It was given to Cicer for dissuading the conspiracy of Catiline, and denied to Caesar, because he embraced his hands in the blood of his fellow citizens.
- **Triumphal Crown**, corona triumphalis, the symbol of victory, and presented to a general who gained any signal advantage to the republic.
- **Grain Crown**, corona graminea was delivered by the whole Roman people to a general, who had relieved an army invested or besieged by the enemy. The other crowns were distributed by the emperors and generals; this was given to Fabius by the Roman people, for obliging Hannibal to decamp from Rome.
- **Olive Crown**, corona olivae, the symbol of peace, and presented to the negotiators of it.

**CROISADE** in military history.

**Crons** 
- **Also** called holy war, barbarous expeditions of the Christians against the Saracens or Turks for the recovery of the holy land, and so called from those who engaged in it wearing a cross on their clothes.

**Cube**
- A solid, consisting of 6 equal square sides. The solidity of any cube is found by multiplying the superficial content of any one of the sides by the height. Cubes are to one another in the triplicate ratio of their diagonals.
- **Cube-root** is the side of one of the squares constituting the cube.

**Cubic foot** implies so much as is contained in a cube whose side is 1 foot, or 12 inches.

**Cubic hyperbola** is a figure expressed by the equation $y = \frac{1}{x^2}$, having 2 asymptotes, and consisting of 2 hyperbolas, lying in the adjoining angles of the asymptotes, and not in the opposite angles, like the Apollonian hyperbola, being otherwise called, by Sir Isaac Newton, in the memoirs of those epochs, an hyperbolismus of a parabola: and is the 65th species of lines, according to him.

**Cubic number** is that which is produced by multiplying any number by itself, and then again the product by that number.

**Cubic parabola**, a curve of the second order, having infinite legs, diverging in contrary ways.

**Cue or Quest**, the hair tied in form of a tail. All the British soldiers, excepting the grenadiers and light infantry, were shortly after wore their hair cut.

**Curassiers**, pieces of defensive armor, made of plate, well harnessed, serving to cover the body, from the neck to the pindle, both before and behind, called breast and back plate.

**Curassiers**, in the military art, are a sort of heavy cavalry armed with curasses, as most of the German horse. 

- The several German powers have regiments of cuirassiers, especially to the emperor, and the king of Prussia. The late king of France had also one regiment, but there were none in the English army since the revolution of 1688. 

**Cush**, the ancient armor which covered the thighs, was so called.

**Cusssars**, Fr. are plates or scales made of beaten iron, which formerly served to cover the thighs.

**Cuipe**, Fr. a technical word to express the preparation of saltpetre for the making of gunpowder. See Saltpetre.

**Culasse,** Fr. See Breast of a Gun.

**Culbutter,** one Column, to overthrow a column. This term is frequently used when cavalry attack infantry by rapidly charging it.

**Culee d'un font,** Fr. butt-end of a bridge.

**Culverin,**
- **Culverin ordinary**, can-
- **Culverin of the largest size**, non-
- **Cuneus**. See Wedge.

**Cunette**. See Culvettes.

**Curfew-bed**, a signal given in cities taken in war, &c. to the inhabitants to go to bed. The most eminent curfew was that in England, established by William the Conqueror, who appointed, under severe penalties, that, at the ringing of a bell, at 8 o'clock in the evening, every one should put out their lights and fires, and go to bed, &c.

**Curtain**, in fortification, is that part of the body of the place, which joins the flank of one bastion to that of the next. See Fortification.

**Angle of the Curtain**. See Fortification.

**Capon of the Curtain**. See Fortification.

**Curvelas**, See Cuilass.

**Cut,** to intercise, to hinder from union or return. In a military sense, this phrase is variously applicable, and extremely familiar.

**To Cut off**. To intercept, or hinder from union or return. In a military sense, this phrase is variously applicable, and extremely familiar.

**To Cut off an enemy's retreat**, is to manoeuvre in such a manner as to prevent an
CUT

To Cut short. To bridge; as the soldiers were cut short of their pay.

To Cut up. When the cavalry are sent in pursuit of a flying enemy, the latter are generally cut up.

To Cut through. A small body of brave men, headed by a good officer, will frequently extricate itself from apparent captivity, or destruction, by cutting its way through superior force.

CUTTER, a military officer, whose business is to forge, temper, and mount all sorts of sword blades.

CUTTING-off. See Retrenchment.

CUVETTE, in fortification, is a small ditch of 10 or 12 feet broad, made in the middle of a large dry ditch, about 4 or 4½ feet deep, serving as a retrenchment to defend the ditch, or else to let water in, (if it can be had during a siege,) and afford an obstacle, should the enemy endeavor to cross the fosse.

CYCLOPEDIA. See Encyclopædia.

CYCLOID, a curve in geometry.

CYLINDER, or concave cylinder of a gun, is all the hollow length of the piece, or bore. See Cannon.

Curved Cylinder, the chamber, or that part which receives the powder and ball. See Cannon.

Front Cylinder, that part of the hollow or bore which remains empty when the piece is loaded.

CYMAR, a slight covering; a scarf.

CYMBAL, in ancient military history, a war-like musical instrument in use among the ancients, made of brass and silver. They are derived from Asia, where they are of a variety of sizes. They are now used by the British and other European nations, in their martial exercises.

CZAR, in military history, a title assumed by the great dukes, or, as they are now styled, emperors of all the Russias. This title is no doubt, by corruption, taken from Caesar, emperor; and the Czar is accordingly bear an eagle, as the symbol of their empire. The first that bore this title was Basil, the son of Basilides, about the year 1470. The Emperor is called the Czarina or Tzarina.

D.

DAGGER, in military affairs, a short sword, or poniard, about 12 or 13 inches long. It is not long since, that duellists fought with sword and dagger.

DAGUE, Fr. dagger, a short thick poniard which was formerly used when individuals engaged in single combat.

DAME, Fr. among miners any portion of earth which may remain after the explosion of a mine has taken place. It likewise means a piece of wood with two handles used to press down turf or dirt in a mortar.

DARE, a challenge or defiance to single combat.

DARRAIN. See Battle-array.

DART, in ancient military history, implies a small kind of lance, thrown by the hand.

DAY, in a military sense implies any time in which armies may be engaged, from the rising of one day's sun to that of another. According to Johnson it signifies the day of contest, the contest, the battle.

DAYSMAN, an umpire of the combat was so called.

DEBANDADE. A la debandade, belter-skeeter. Se lutter à la debandade, to fight in a loose, dispersed manner.

DEBARK, see Disembark.

DEBARK, Fr. to disembark or entice a soldier from the service of his country. During the reign of Louis the XV. and in former reigns, it was enacted, that any person who should be convicted of having debarked or enticed a soldier from his duty should suffer death. By a late act of the British parliament it is made a capital offence to entice or seduce a soldier from any regiment in the British service.

By the 23d section of the articles of war of the United States, the advising or persuading any officer of the United States army to desert, subjects the advisor to the punishment of death, or such other punishment as a court martial may inflict.

DEBENTURE, is a kind of warrant, given in the office of the British board of ordnance, whereby the person whose name is therein specified, is intitled to receive such a sum of money as by former contract had been agreed on, whether wages, or otherwise. Debenture, in some of the British acts of parliament, denotes a kind of bond or bill, first given in 1642, whereby the government is charged to pay the soldier, creditor, or his assigns, the money due on auditing the
account of his arrears. The payments of the board of ordinance for the larger services at home are always made by debentures; and the usual practice has been to make these payments which are said to be in course of office, at a period which is always somewhat more than three months after the date of each debenture, and which can never exceed six: to pay, for instance, at once for the three months of January, February, and March, as early as possible after the 30th of June.

Debentures were generally made up at the Pay-Office by virtue of warrants from the War-Office, with the state of regimental charges annexed, after which is issued the final, or clearing warrant. See War Office.

DEBLAYER en Camp, Fr. To evacuate a camp for the purpose of cleaning and purifying the ground.

DEBTS and Credits. Every captain of a troop or company in the British service is directed to give in a monthly statement of the debts and credits of his men; and it is the duty of every commanding officer to examine each list, and to see that no injustice or irregularity has been countenanced or overlooked in so important an object, as every money matter between officer and soldier most unquestionably is.

DECAGON, in fortification, is a polygon figure, having 10 sides, and as many angles; and if all the sides are equal, and all the angles, it is called a regular decagon, and may be inscribed in a circle.

The sides of a regular decagon are, in proportion, length, equal to the greatest segment of an hexagon inscribed in the same circle, and cut in extreme and mean proportion.

DECAGON, Fr. See Decagon.

To DECAMP, to march an army or body of men from the ground where it before lay encamped. It also signifies to quit any place or position in an unexpected manner. See Camp.

DECANUS, in Roman military history, an officer who presided over ten other officers, and was head of the contubernium, or sergeant of a file of Roman soldiers; hence our Decanum.

DECHARGEURS, Fr. are men appointed to attend the park of artillery, and to assist the non commissioned officers, &c. who are employed on that service. It is the duty of the former to keep a specific account of articles received and consumed, in order to enable the latter to furnish their officers with accurate statements.

To DECIMATE, to divide any body of men into as many tenths as the aggregate number will afford, and to make them cast lots for the purpose of being punished.

DECIMATION, in Roman military history, a punishment inflicted upon such soldiers as quitted their post, or behaved themselves cowardly in the field. The names of all the guilty were put into an urn or helmet, and as many were drawn out as made the tenth part of the whole number: the latter were put to the sword and the others saved.

DECIMER, Fr. See Decimate.

DECLARATION of war, a public proclamation made to the citizens, or subjects of a state, declaring them to be at war with any foreign power, and forbidding all and every one to aid or assist the common enemy, at their peril.

DECLIVITY, as opposed to acclivity, means a gradual inclination, or obliquity reckoned downwards.

DECOMPTE, Fr. signifies a liquidation, or balance, which from time to time was made in the old French service, between the captain of a company and each private soldier, for monies advanced, or in hand. In the British service every infantry soldier is settled with on the 30th of June for the three months previous, and the others saved.

DECOY, a stratagem to carry off the enemy's horses in a foraging party, or from the pasture: to execute which, you must be disguised, and mix on horseback in the pasture, or amongst the foragers on that side on which you propose to fly: you must then begin, by firing a few shots, which are to be answered by such of your party as are appointed to drive up the rear, and are posted at the opposite extremity of the pasture, or foraging ground; after which they are to gallop from their different stations towards the side fixed for the flight, shouting and firing all the way: the horses being thus alarmed, and provoked by the example of others, will break loose from the pickets, throw down their riders and the trusses, and setting up a gallop, will naturally direct their course to the same side; insomuch that, if the number of them was ever so great, you might lead them in that manner for several leagues together: when you are got into some road, bordered by a hedge, or ditch, you must stop as gently as possible; and without making any noise; the horses will then suffer themselves to be taken without any opposition. It is called in French Horasse; and marshal Saxe is the only author that mentions it.

DECOYED, an enemy is said to be
decoyed when a small body of troops draws them into action, whilst the main body lies in ambush ready to act with the greatest effect.

**Decurio**, in Roman military history, ten Roman soldiers ranged under one chief, or leader, called the Decurio.

**Deep**, troops are told off in ranks of two, or three, and on some occasions in four or more.

**Defaulter**, See Deserter.

**Defeat**, the overthrow of an army, is a vigorous effort to prevent the enemy from passing; to effect which, a careful and attentive officer will raise redoubts, and if necessary, join curtains thereto; he will place them as near the banks as possible, observing to cut a trench through the ground at the windings of the river, which may be favorable to the enemy, and to place advanced redoubts there, to prevent his having any ground fit to form on, &c., See Rivers.

To be in a posture of **Defence**, is to be prepared to oppose an enemy, whether in regard to redoubts, batteries, or in the open field.

To **Defend**, to fortify, secure, or maintain a place or cause.

**Defence**, Fr. *See Liger de Defence*.

**Defence**, Fr., *lire en deffense*, technically signifies to be in a state of defence, or able to resist. The French usually say: *Cette rade est en defence*. This redoubt is in a state of defence.

**Defenses d'une place**, Fr. *See Defence in Fortification*.

**Defensive**, serving to defend; in a state or posture of defence.

**Defensive-war**, See War.

**Defiante**, See Challenge.

**Deficient**, wanting to complete, as when a regiment, troop, or company has not its prescribed number of men.

**Defile**, in military affairs, a strait narrow passage, or road, through which the troops cannot march, otherwise than by making a small front, and filing off, so that the enemy may take an opportunity to stop, or harass their march, and to charge them with so much the more advantage, because the rear cannot come up to the relief of the front.

To **Defile**, is to reduce divisions or platelows into a small front, in order to march through a defile; which is most conveniently done by quarter facing to either the right or left, and then covering to either right or left, and marching through by files, &c. It has been mentioned by a writer on military manoeuvres, that defiling should be performed with rapidity, for this obvious reason, that a body of men which advances towards, or retires from an approaching enemy, may get into line, or into columns prepared for action, without loss of time. Their may, however, be exceptions to this g-
For instance, if the regiment is passing a bridge, whether retreating or advancing, and the bridge is not firm, the pressure upon it must be as little as possible; because if it should break down, the regiment would be cut into pieces. In passing a common defile the pace must be proportioned to the nature of the ground.

**DEFILING a defile.** See **ENLARGE.**

**DEFORMER, Fr. in a military sense, signifies to break; as déformer une colonne, to break a column.**

**DEFY,** See Challenge.

**DECAY,** Fr. the wasting away an army's country, particularly in the neighborhood of a town which an army attempts to reduce by famine, or which retires to its military excursions.

**DEGOBERGH,** Fr., a sort of steel pricker used in examining the touch-hole of a cannon; called a priming wire.

**DEGRADATION,** in a military life, the act of depriving an officer for ever of his commission, rank, dignity, or degree of honor; and taking away, at the same time, title, badge, and every other privilege of an officer.

**DEGRADER,** Fr. To degrade. The character of a soldier in France was formerly, and we presume still is, so scrupulously watched, that criminals were never delivered over to the charge of the civil power, or sent to be executed, without having been previously degraded; which was done in the following manner:

As soon as the sergeant of the company to which the culprit belonged, had received orders from the major of the regiment, to degrade and render him incapable of bearing arms, he accosted him cap-a-pied, taking care to place his right hand upon the butt-end of the musquet, while the soldier remained tied. He then repeated the following words: "Finding thee unworthy to bear arms, we thus degrade thee. To prevent indigne de porter les armes, nous t'en dégradons." He then drew the musquet from his arm backwards, took off his cross-belt, sword, &c. and finally gave him a kick upon the posterior.

After which the sergeant retired, and the executioner seized the criminal. See **DEMONT.**

**DEGREE.** See Degree.

**DEGREE.** Though this term properly belongs to geometry, nevertheless it is frequently used both in fortification, and gunnery. Hence it will not be improper to state, that it is a division of a circle, including a 360th part of its circumference. Every circle is supposed to be divided into 360 parts called degrees, and each degree into 60', other parts, called minutes; each of these minutes being divided into 60 second, each second into thirds, and so on.

**DEHORS,** in the military art, are all parts of out-works in general, placed at some distance from the walls of a fortification, the better to secure the main places, and to protect the siege, &c.

See **Fortification.**

**DELINERATION,** an outline or sketch. See **DESIGN.**

**DELIBER.** See Surrender.

**DEMI-BASTION,** or half-bastion, is a work with only one face and one flank.

See **Fortification.**

**DEMI-CANNON.** See Cannon.

**DEMI-CULVERIN,** See Cannon.

**DEMI-DISTANCE,** des polygones, Fr., is the distance between the exterior polygons and the angles.

**DEMI-DISTANCES,** Fr., half-distances; as serre la colonne à demi-distances, close to the colonn at half distances.

**DEMI-FILE,** Fr. is that rank in a French battalion, which immediately succeeds to the serre demi-file, and is at the end of the remaining half of its depth.

**DEMI-LANCE,** a light lance or spear.

**DEMI-LINE,** in fortification, is a work placed before the curtain to cover it and prevent the flanks from being discovered sideways. It is made of two faces, meeting in an outward angle.

See **Fortification.**

**DEMI-GORGE,** in fortification, is half the gorge, or entrance into the bastion, not taken directly from angle to angle, where the bastion joins the curtain, but from the angle of the flank to the centre of the bastion; or the angle which the two curtains would make, by their prolongation. See **Fortification.**

**DEMISSION,** Fr. Resignation.

**DEMOLITION,** the act of overthrowing buildings.

**DENIZEN,** a free man, residing in a country or state, and owing allegiance, as opposed to alien, which means a person not a citizen, and who owes or acknowledges a foreign allegiance.

**DENONCIATEUR d'un déserteur,** Fr. During the old government of France, a military regulation existed by which any person who discovered a deserter, was entitled to his full discharge, if a soldier; and to one hundred livres, or eleven dollars reward.

**DENONCIATEUR,** in a general sense, may not improperly be called a military informer. So rigid indeed, were the regulations (even in the most corrupt state of the French government) against every species of misapplication and embezzlement, that if a private dragoon gave information to the commissary of musters of a troop horse that had passed muster, having been used in the private service of an officer, he was entitled not only to his discharge, but received moreover one hundred livres in cash, and became master of the horse and equipment, with which he retired un molested. It is not mentioned in the publication from which we extract this remark, whether the officer...
was cashiered, &c. but we presume he was.

One hundred and fifty livres were likewise paid to any dragoon, or soldier who should give information of a premature sold out. He obtained moreover his discharge.

**DENSITY of bodies.** See Motion.

**DEPASSE, (or DESORDRE), Fr.** To over-run. In oblique movements, particular care should be taken not to afford an enemy that advances on the same points with yourself, the means of outflanking you; which must inevitably happen, should any part of your troops over-run their proper ground. For the instant such an error occurs, your antagonist will only have to form a retired flank, oppose you in front on that part, and charge the remainder in flank, after having cut off all the troops that had over-run.

**Selairer DEPASSE, to suffer yourself to be overtaken.**

**DEPENSES, Fr.** In a military sense, implies secret service money.

**DEPLOY, to display, to spread out; a column is said to deploy, when the divisions open out, or extend to form line on some one of those divisions.**

**DEPLOYMENT, or flank march, in a military sense, the art of unfolding or expanding any given body of men, so as to make a flank of their front. A deployment may be made in various ways.** The principal one, is from the close column into line. A battalion in close column may form in line on its front, on its rear, or on any central division, by the deployment, or flank march, and by which it successively uncovers and extends its several divisions.

In the passage of an obstacle, parts of the battalion are required to form in close column, and again deploy into line; although the division formed upon, continues to be moveable. This, however, depends wholly upon the nature of the ground or country, over which the battalion is marching.

**DEPLOYMENT into line on a front division, the right in front, is effected by halting that division in the alignment, and all the others in their true situations, parallel and well closed up to it; and then by taking a point for forming upon, and dressing by it the prolongation of that division.** For a minute explanation of the deployments on a rear and central division. See American Military Library.

**Oblique Deployments differ from those movements, which are made when a battalion stands perpendicular to the line on which it is to form.** These deployments are frequently made on an oblique line advanced, on an oblique line retired, and when the close column halted is to form in line in the prolongation of its flank, and on either the front, rear, or central division. See Am. Mil. Lib.

**DEPOT, any particular place in which military stores are deposited for the use of the army.** In a more extensive sense, it means several magazines collected together for that purpose. It also signifies an appropriated fort, or place, for the reception of recruits, or detached parties, belonging to different regiments.

During hostilities, the greatest attention should be given to preserve the several depots which belong to the fighting army. Hence the line of operation should be invariably connected with them, or rather no advance should be made upon that line, without the strictest regard being paid to the one of communication.

**DEPOT is also used to denote a particular place at the tail of the trenches, out of the reach of the cannon of the place, where the troops generally assemble, who are ordered to attack the out-works, or support the troops in the trenches, when there is reason to imagine the besieged intend making a vigorous sally.**

**DEPOT, likewise means a temporary magazine for forage, for fascines, sablons, tools, and every other thing necessary for the support of an army, or for carrying on a siege.**

**DEPOUILLE, Fr. mettre en depouille, is an expression made use of in casing of cannon, and signifies to strip it of the mante, clay, &c.**

**DEPOUILLES de l'ennemi, Fr. See Stolze.**

**DEPRESSION, the placing of any piece of ordnance, so that its shot be thrown under the point blank line.**

**DEPRESSED gun, any piece of ordnance having its mouth depressed below the horizontal line.**

**DEPTH of a battalion or squadron, in military affairs, the number of ranks, or the quantity of men.** Infantry were formerly drawn up 6 or 8 deep, that is, it consisted of so many ranks; but now the line of infantry are generally drawn up only 3 deep, and in defence of a breach work but two deep. When infantry is drawn up 3 deep, the first rank is called the front rank; the second, the centre rank; and the third, the rear rank, and the files which bind the right and left, are called the flanks. The cavalry is drawn up a deep.

**DEPTH, a technical word peculiarly applicable to bodies of men drawn up in line or column.**

**DEPTH of formation.** The fundamental order of the infantry in which they should always form and act, and for which all their various operations and movements are calculated, is three ranks. The formation in two ranks is regarded as an occasional exception that may be made from it, where an extended and covered front is to be occupied, or where an irregular enemy, who deals only in fire, is to be opposed. The formation in two ranks, and at open files, is calculated only for light troops in the attack and pursuit of a timid enemy, but not for...
making an impression on an opposite regular line, which vigorously assails, or
attacks. Di
t is not only applicable to men
- drawn up in line, and standing at close,
or open files two or three deep, but it may be
used to signify the relative depth of an
army marching towards any given object,
in military columns.

DEPUTY, a term given to persons
employed in the civil departments of the
army, and subject to superior trusts.

DEPUTY master-masters.
DEPUTY commissaries.

DEROUTE, Fr. The total over-
throw of an army, battalion, or of any
armed party. See DESERT.

To DESCEND, signifies to leave any
position on an eminence for immediate
action.

To DESCEND upon, to invade. When
an enemy from surrounding heights sud-
denly makes an assault on a fortified place, he
is said to descend upon it. The term is
also applied to troops debarking from
their ships for the purpose of invasion.

DESCENT. Hostile invasion of any
state or kingdom.

DESCENTES, dans le fossé, Fr. See
DESCENTS into the ditch.

DESCENTS into the ditch, are cuts and
excavations which are made by means
of saps in the counterscarp beneath the
covered way. They are covered with thick
fascines and hurdles, and a certain quantity
of earth is thrown upon the top, in order
to obviate the fatal effects which might
arise from shells, &c.

When the ditch or fosse is full of
water, the descent must be made to its
edge, after which the ditch must be filled
with strong fascines covered with earth.
When the ditch is dry, the saps are carried
up to the bottom, and traverses are made
in order to secure a lodgment, or to ren-
der the approaches of the miner more
difficult. When the ditch or fosse
which is full of water, has little or no
bank, the descent is simply made over it,
care being taken to cover its enfilade or
range with blinds and chandeliers, or to
execute it as much out of sight as
possible.

DESCENTS, in fortification, are the
holes, vaults, and hollow places, made
by undermining the ground.

DESCRIPTION, Signalement, Fr.
The description of a man’s person, his
appearance, &c. It not only signifies the
figure, but an exact and specific detail
of such marks and prominent features, that
by comparing the copy taken on paper
with the original, the latter may be instantly
recognized. It is the custom in all well regulated armies for every regi-
ment to have an exact description of each man that belongs to it, specifically drawn
out in the adjutant’s books. So that
when a soldier deserts, a copy is instantly
taken, and forwarded to those places to
which it is most likely to resort.

DESERTER, in a military sense, a
soldier who, by running away from his
regiment, troop, or company, abandons
the service.

DESERTERS. A prudent officer will
always be cautious of what he entrusts
to a deserter; the judgment of the offi-
cer, and his knowledge of human charac-
ter, are the only guides which he has in
his conduct; the motives of the deserter
are therefore to be considered, whether
it was the result of depravity in himself
or of causes which might affect a gene-
rous mind. In this case, however, he
should be as cautious as if it proved to be
depravity only. A deserter on reaching
the lines is put under arrest and conduct-
ed to the commanding officer, where he
is examined, and it is usual to notify
him he will be punished with death as
a spy if he gives false information.

Though great caution is required in
regard to the information given by deserters,
great advantage may be derived from their
information, as attacks premeditated, the
positions of officers, corps, and maga-
zines, and head quarters, of discontent
in the army, or disagreements among the
superior officers.

DESERTERS from the militia may
be apprehended by any person in the same
manner, that deserters are from the regu-
lar army. Persons apprehending a de-
serter are entitled to 10 dollars.

Penalty of DESERTION. All officers
and soldiers, who having received pay, or
having been duly enlisted in the U. S. ser-
vice, shall be convicted of having deserted
the same, shall suffer death or such other
punishment as by a court-martial shall
be inflicted. Art. War, 20, 21, 22, 23.

Any non commissioned officer or sol-
dier, who shall, without leave from his
commanding officer, absent himself from
his troop or company, or of any dis-
tachment with which he shall be com-
manded, shall, upon being convicted
thereof, be punished according to the
nature of the offence, at the discretion of
a court-martial.

No non commissioned officer or soldier
shall insist himself in any other regiment,
troop, or company, without a regular
discharge from the regiment, troop, or
company in which he last served, on the
penalty of being reputed a deserter and
suffering accordingly; and in case any
officer shall knowingly receive and ent-
tertain such non commissioned officer or
soldier, or shall not, after his being dis-
tached to be a deserter, immediately con-
fine him, and give notice thereof to the
commander in which he last served, he,
the said officer so offending, shall by a court-
martial be cashiered.

Whatever officer or soldier shall be
convicted of having advised any other offi-
cer or soldier, to desert our service, shall
suffer such punishment as shall be im-
DETAILED upon him by the sentence of the court-martial.

Penalty for concealing British Deserters, or buying their arms, clothes, &c. Provided always, that if any person shall harbor, conceal, or assist any deserter from his majesty's service, knowing him to be such, the person so offending shall forfeit for every such offence, the sum of £5. or if any person shall knowingly detain, buy, or exchange, or otherwise receive, any arms, clothes, caps, or other furniture belonging to the king, from any soldier or deserter, or any other person, upon any account or pretence whatsoever, or cause the color of such clothes to be changed; the person so offending, shall forfeit for every such offence the sum of £5. and upon conviction by the oath of one or more credible witnesses, before any of his majesty's justices of the peace, the said respective penalties of £5. and £5. shall be levied by warrant under the hand and seal of the goods and chattels of the offender; one moiety of the said first mentioned penalty of £5. to be paid to the informer, by whose means such deserter shall be apprehended; and one moiety of the said last mentioned penalty of £5. to be paid to the officer to whom any such deserter or soldier did belong; and in case any such offender, shall be convicted, as aforesaid, of harboring or assisting any such deserter or deserters, or of having knowingly received any arms, clothes, caps, or other furniture belonging to the king or having caused the color of such clothes to be changed, contrary to the intent of this act, shall not have sufficient goods and chattels, wherein distress may be made, to the value of the penalties recovered against him for such offence, or shall not pay such penalties within 4 days after such conviction; then, and in such case, such justice of the peace shall and may, by warrant under his hand and seal, either commit such offender to the common gaol, there to remain without bail or mainprize for the space of three months, or cause such offender to be publicly whipped at the discretion of such justice.

DESERTER. Fr. See Deserter.

DESIGN, in a general sense, implies the plan, order, representation, or construction of any kind of military building, chart, map, or drawing, &c. In building, the term architectural may be used; when by design is only meant the plan of a building or a flat figure drawn on paper: when some side or face of the building is raised from the ground, we may use the term perspective: and when both front and sides are seen in perspective, we may call it perspective.

DESIGNING, the art of delineating or drawing the appearance of natural objects, by lines on a plane.

DESORDE, Fr. See Disorder.

DESTINATION, the place or purpose, to which any body of troops is appointed in order to do or attempt some military service.

DETACH, is to send out part of a great number of men on some particular service, separate from that of the main body.

DETACHED pieces, in fortification, are such outworks as are detached, or at a distance from the body of the place; such as half-moons, ravelines, bastions, &c.

DETACHMENT, Fr. See Detachment.

DETACHMENT, in military affairs, an uncertain number of men drawn out from several regiments or companies equally, to march or be employed as the general may think proper, whether on an attack, at a siege, or in parties to scour the country. A detachment of 2000 or 3000 men is a command for a general officer; 800 for a colonel, 500 for a lieutenant-colonel, 200 or 300 for a major, 50 or 100 for a captain, 40 for a lieutenant or ensign, 20 for a serjeant, and 6 for a corporal. Detachments are sometimes made of intine squadrons and battalions. One general rule in all military projects that depends upon us alone, should be to omit nothing that can insure the success of our detachment and design; but, in that which depends upon the enemy, to trust something to hazard.

DETAIL, Fr. faire le detail d'une armée, d'une compagnie, ou d'un corps de gens de guerre; is to keep a strict eye upon every part of the service, and to issue out instructions or orders, that every individual belonging to a military profession may discharge his trust with accuracy and fidelity. Faire le detail d'une compagnie, likewise means to make up a company's report, &c.

DETAIL of duty, in military affairs, is a roster or table for the regular and exact performance of duty, either in the field, garrison, or cantonments. The general detail of duty is the proper care of the majors of brigue, who are guided by the roster of the officers, and by the tables for the men, to be occasionally furnished. The adjutant of a regiment keeps the detail of duty for the officers of his regiment, as does the serjeant-major that for the non-commissioned, and the latter that for the privates.

DEVASTATION, in military history, the act of destroying, laying waste, demolishing, or unpoppuling towns, &c.

DEVELOPPE, Fr. to unfold, to unravel; as: Se développer sur la tète d'une colonne, to form line on the head of a column.

DEVICE, the emblems on a shield or standard.

DEUIL militar, Fr. military mourning.

DEVUIER, in the passage, is a
plied too horse that, upon working upon
volts, makes his shoulders go too fast for
the group to follow.

DIAMETER. See CIRCUMFERENCE.

DIAGONAL, reaching from one angle
to another: so as to divide a parallelo-
gon into equal parts.

DIAGONAL MOVEMENTS. See EXPLANATION.

DIAMETER, in both a military and
geometrical sense, implies a right line
passing through the centre of a circle,
and terminated at each side by the cir-
cumference thereof. See CIRCLE.

The impossibility of expressing the
exact proportion of the diameter of a cir-

cle to its circumference, by any received
way of notation, and the absolute neces-
sity of having it as near the truth as pos-
sible, has put some of the most celeb-
rated men in all ages upon endeavoring to
approximate it. The first who attempted
it with success, was the celebrated
Van Curen, a Dutchman, who by the
ancient method, thought so very laborious,
carrying it to 75 decimal places: these he
ordered to be engraven on his tomb-stone,
thinking he had set bounds to improve-
ments. However, the indefatigable Mr.
Abraham Sharp carried it to 75 places in
decimals; and since that, the learned Mr.
John Machin has carried it to 100 places,
which are as follows:

If the diameter of a circle be \( r \), the

circumference will be \( 3.1415926535897932384626433832795028841971693993751058209749445923078163526028992057580048534155288507688479
\),

so of the same

But the ratios generally used in the
practice of military mathematics are
these following. The diameter of the
circle is to its circumference as \( \pi \) is to
355 nearly. The square of the diameter
is to the area of the circle, as 452 to 355.
The cube of the diameter is, to the solid
content of a sphere, as 698 to 355. The
cubes of the area are, to the solid con-

tents of equal-axis cylinders, as 452 to
355. The solid content of a sphere is,
the circumscribed cylinder, as 2 to 3.

How to find the Diameter of shot or
shells. For an iron ball, whose diameter
is given, supposing a 9-pounder, which
is nearly 4 inches, say, the cube root of
2.68 of 9 pounds is, to 4 inches, as the
cube root of the given weight is to the
diameter sought. Or, if \( r \) be divided by
2.68, the cube root of 9, the quotient
\( r \), will be the diameter of a 1-pound
shot, which being continually multi-
plied by the cube root of the given weight,
gives the diameter required.

by logarithms much shorter, thus:

If the logarithm of 1.0233, which is
2.08979, be constantly added to the third
part of the logarithm of the weight, the
sum will be the logarithm of the diame-
ter. Suppose a shot to weigh 24 pounds:

If the weight should be expressed by
a fraction, the rule is still the same: for
instance, the diameter of a 44 pound ball,
or 3.2, is found by adding the logarithm
2.08979, found above, to .0386711, 3
of the logarithm of 2.3, the sum .342595
will be the logarithm of the diameter
required. I. e. 5.213 inches.

As the diameter of the bore, or the
calibre of the piece, is made 1.20 part
larger than that of the shot, according to
the present practice, the following table
is computed for this proportion.

<table>
<thead>
<tr>
<th>Diameter of the shot and calibres of English guns</th>
<th>Diameters of the shot</th>
<th>Calibres of the calibres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
<td>1.20</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

EXPLANATION.

The numbers in the first line of the table
are units, and those in the first column of
the left side of the table tens; the other
numbers, under the one, and opposite
to the others, are the respective diameters
of shot and calibres. Thus, to find the diam-
eter of the shot, and the calibre of a 24 pr.
look for the number 2 on the left-hand
side, and for 4 at top; then the number 5.547, under 2, and opposite 4, will be
the diameter of the shot in inches and
decimals, and the number 58.24, under
the first, the calibre of a 24-pounder.
The diameter of musket bores differs about 1-50th part from that of the bullet.

**Diameter of Powder Measures.** See Powder Measures.

**Dictator,** a magistrate of Rome, made in times of exiguity and public distress, and invested with absolute authority.

**Difference,** the sum paid by an officer in the British service, when he exchanges from half to full pay. It likewise means the regulation price between an inferior and a superior commission. Officers who retire upon half pay, and take the difference, subject themselves to many incidental disadvantages, should they wish to return into active service.

**Digging,** See Mining.

**Digladiation,** a combat with swords.

**Diglon,** Fr. A staff at the end of which is suspended a vane or streamer. This term is properly marine.

**Dike or Dyke,** a channel to receive water, also a dam or mound, to prevent inundation. See Fortification.

**Dimache,** in ancient military affairs, were a kind of horses, answering to the dragons of the moderns.

**Dimication.** See Battle.

**To diminish or increase the front of a battalion,** is to adapt the column of march or manoeuvre according to the obstructions and difficulties which it meets in advancing. This is one of the most important movements, and a battalion which does not perform this operation with the greatest exactness and attention, so as not to lengthen out in the smallest degree, is not fit to move in the column of a considerable corps.

**Directeur General,** Fr. A military post of nominal importance which was originally instituted by Louis XIV. This charge was entrusted to eight lieutenant generals, four to command and superintend the infantry, and four for the cavalry. They possessed, however, little or no authority over the army in general; being subordinate in some degree to the general officer whose corps they might inspect, and to whom they readied a correct account of its interior economy. They were likewise assisted by inspectors general. The four directors were afterwards replaced by the inspectors, from a principle of economy. The permanent ones of that appellation were: director general of the royal artillery school; director general of military hospitals; director general of fortification; director general of the cavalry; director general of stores.

**Direction,** in military mechanics, signifies the line or path of a body in motion, along which it endeavors to force its way, according to the propelling power that is given to it.

**Angle of Direction,** that formed by the lines of direction of two conspiring powers.

**Quantity of Direction,** a term used by military mathematicians for the product of the velocity of the common centre of gravity of a system of bodies, by the sum of their quantities of matter: this is no ways altered by any collisions among the bodies themselves.

**Dirk,** a kind of dagger used by military men, and by the highlanders in Scotland.

**To disarm,** to deprive a soldier of every species of offensive or defensive weapon.

**Disarmed,** soldiers divested of their arms, either by conquest, or in consequence of some defection.

**Disbanded,** the soldiers of any regiment, who are in a body dismissed from the conditions of their military service.

**Disembark.** See Disembark.

**Discharge,** in a military sense, is the discharging a soldier from the troop or company he belonged to, either at his own request, or after long services. This term is also applied to the firing of cannon or musquets, as a discharge of cannon, or of small arms.

**Disciplinarian,** an officer who pays particular regard to the discipline of the soldiers under his command.

**Military Discipline,** 2 By military Constitution. A constitution is meant, the authoritative declared laws.
DIS

for the guidance of all military men, and all military matters; and by discipline is meant, the obedience to, and exercise of those laws. As health is to the natural body, so is a sound military constitution to the military one, and as exercise is to the first, so is discipline to the last. Bray will perhaps gain a battle; but every one knows that by discipline alone the long disputed prize of a war can be ultimately obtained.

The kingdom of Prussia was striking example in favor of perfect discipline; for while that state had a strong army, and maintained that army in strict discipline, it had held a very considerable share in the system of Europe.

**Marine Discipline**, is the training up soldiers for sea service, or much exercise and various positions as the musquet and body may require: teaching them likewise every maneuver that can be performed on board ships of war at sea, &c.

**Discipline militaire.** See Military Discipline.

**Discretion**, Fr. discretion. Se rendre à discrétion, to surrender at discretion, implies to throw oneself upon the mercy of a victorious enemy. The French likewise say, les soldats quittent à discrétion dans un pays; which in familiar English signifies, soldiers live tout libre in a country.

To DISENGAGE, to clear a column or line, which may have lost its proper front by the overlapping of any particular division, company, or section when ordered to form up. To do this, ground must be taken to the right or left. It is however, a dangerous operation when the army or battalion gets into a line of fire. In that case the files that overlap must remain in the rear, and fill up the first openings.

To DISENGAGE, is also to extricate yourself and the men you command from a critical situation. A battalion, for instance, which may have advanced too far during an action, and got between two fires, may, by an able maneuver, disengage itself. To DISENGAGE the wings of a battalion. This is necessary when the battalion counter marches from its centre, and on its centre by files. The battalion having received the word “by wings, inward face,” is next ordered “by wings, three side steps to the right, march,” by which the wings are disengaged from each other, or this may be done by a quarter face to the right and left after facing inward. In counter-marching, &c. the leading files must uniformly disengage themselves. To DISENGAGE, in fencing, to quit that side of your adversary’s blade, on which you are opposed by his guard, in order to effect a cut or thrust where an opportunity may present.

To DISMANTLE, to strip a town or fortress of its outworks.

To DISMANTLE a gun. To render it unfit for use. Guns are frequently dismantled and left upon the field of battle.

DISCOMFIT, defeat, rout, overthrow.

DISCOVERER, a scout; one who is set to discover the enemy.

DISEMBARK, to land from on board any vessel or craft, used to convey troops on the sea.

DISEMBODIED. See DISEMBARK.

To DISEMBODY. To disband.

DISGARNISH, to take guns from a fortress.

DISLODE, to drive an enemy from their post or station.

DISMISSED. An officer in the British service may be dismissed generally or specifically. When an officer is dismissed generally, it is signified to him, that there is not any further occasion for his services. When an officer is dismissed specifically, it is expressly notified, that he is rendered incapable of ever serving again. Sometimes, indeed, this species of dismissal is attended with public marks of extreme disgrace and degradation. In the Austrian service a colonel has been dismissed at the head of his regiment, and has had his sword broken before him, &c. During the present war the colonel of a militia regiment has not only been rendered incapable of ever serving again, but has been expelled the house of commons for military misconduct. The charges against him, together with the circumstantial proofs of his guilt, and the king’s approbation of the sentence were read in the circle of every regiment throughout Great Britain, in 1795, and nothing but a plea of severe indisposition saved the culprit from having the minutes publicly communicated to him at the horse guards.

DISMOUNTING, in a military sense, is the act of unhorning. Thus, to dismount the cavalry, &c. is to make them alight.

To DISMOUNT cannon, is to break their carriages, wheels, axle-trees, or any thing else, so as to render them unfit for service. It also implies dismounting by the gin, &c.

DISOBEDIENCE of orders. Any infraction, by neglect or wilful omission, of general or regimental orders. It is punishable by the articles of war.

DISPART, in gunnery, is to set a mark on the muzzle ring, so that it may be of an equal height with the base ring; hence a line drawn between them, will be parallel to the axis of the concave cylinder, for the gunner to take aim by it, to hit the mark he is to fire at; for the bore and this imaginary line being parallel, the aim so taken must be true. This exactness cannot be made use of in an engagement, and but very seldom at a siege: for in those cases practice and the eye must be the only guides.

DISPART. The dispant of a gun is the half difference between the diameter of
the gun at the base ring, and at the swell parts for the ultimate benefit of the whole, &c.

A particular disposition or arrangement of war signifies the detail of minute objects, and the appropriation of various parts, one with another, for the purpose of effecting a general combination. This disposition, (without which the other must prove abortive,) consists in an observance of the strictest discipline by every individual that belongs to a troop or company. To this end, general officers should be scrupulously exact in attending to the inspection of particular corps; specific instructions for regimental economy and discipline should be given, and the strictest regard be paid to the execution of orders.

DISTANCE, in military formation, signifies the relative space which is left between men standing under arms in rank, or the intervals which appear between those ranks, &c.

Inaccessable distance may be found several ways; the most correct of which of course is by means of proper mathematical instruments; which, however, are not always to be had in the field.

The following different methods are laid down by several authors, where instruments cannot be had.

**Fig. 1.**

1. Wishing to know the distance of the object A from B (fig. 1.) place a picket at B and another at C, at a few fathoms distance, making A B C a right angle, and divide B C into 4, 5, or any number of equal parts: make another similar angle at C, in a direction from the object, and walk along the line C D till you bring yourself in a line with th: object A, and any of the divisions, (say o) of the line B C. Then, as C : C D :: B o : B A.

2. To gain the distance between two objects C and D (fig. 2.) from any point A, taken in the line C D, erect the perpendicular A E; on which set off from A to E, 1 or 200 feet, more or less, according to the distance between the points C and D; set off from E to G in the prolongation A E, one eighth or one tenth of
Nearly after the same manner may be ascertained the distance from A to B, when the point B is accessible, for having measured the line CB, and made the angle CED equal to CBA, it will be, as CE : DE :: CB : BA.

4. The distance of a battery, or other object, may be ascertained by the tangent scale on the breech of a gun. It is however necessary in this case to know the height of the object, the distance of which is required. Lay the gun by the upper line of metal for the top of the object, then raise the tangent scale till the top of the scale and the notch at the muzzle are in a line with the bottom of the object, and note what height of the tangent scale is required: then say, as the length of the scale above the base ring of the gun is to the length from the base ring to the swell of the muzzle, so is the height of the object to its distance from the muzzle of the gun.

5. The breadth of a river, or other short distance, may be taken thus: take two pickets of different lengths, drive the shortest into the ground close to the edge of the bank; measure some pace back from it, and drive in the other till you find, by looking over the tops of both, that your sight cuts the opposite side: then pull up the first picket, measure the same distance from the second, in any direction the most horizontal, and you will have the distance required.

6. The following simple method of ascertaining the breadth of a river may be sufficiently correct for some cases: Place yourself at the edge of one bank, and lower one corner of your hat till you find the edge of it cuts the other bank; then steady your head, by placing your hand under your chin, and turn gently round to some level spot of ground, and observe where your eyes and the edge of the hat meet the ground: your distance from that point will be nearly the breadth of the river.

7. Distances ascertained by the difference between the true and apparent level. See Levelling.

8. Distances measured by sound. See Sound.

9. The following simple micrometer may be so usefully applied to military purposes, that we shall extract it verbatim from the Philosophical Transactions for 1791, where it is described by Cavallo. This micrometer consists of a thin and narrow slip of mother of pearl, finely divided, and placed in the focus of the eyeglass of a telescope, just where the image is formed. It is immaterial whether the telescope be a reflector, or a refractor, provided the eye glass be a convex lens and not a concave one, as in the Galilean construction. The simplest way to fix...
it, is to stick it on the diaphragm, which generally stands within the tube, and in the focus of the eye glass. When thus fixed, if you look through the eye glass, the divisions on the scale will appear very distinct, unless the diaphragm is not exactly in the focus; in which case the scale must be placed exactly in the focus, by pushing the diaphragm, backwards or forwards, when this is practicable; or else the scale may be easily removed from one surface of the diaphragm to the other, by the interposition of a circular bit of paper or card, or a piece of sealing wax. This construction is fully sufficient when the telescope is always to be used by the same person; but when different persons are to use it, then the diaphragm, which supports the micrometer, must be so constructed as to be easily moved backwards or forwards, though that motion need not be greater than about the tenth or eighth of an inch. This is necessary, because the distance of the focus of the same lens appears different to the eyes of different persons; and therefore whoever is going to use the telescope for the mensuration of an angle, must first unscrew the tube which contains the eye glass and micrometer, from the rest of the telescope, and looking through the eye glass, place the micrometer where the divisions of it may appear most distinct to his eye. The mother of pearl scale may be about the 20th part of an inch broad; its length is determined by the aperture of the diaphragm; its thickness that of writing paper. The divisions on it may be the 200th of an inch, which may reach from one edge of the scale to about the middle; and every fifth and tenth division may be a little longer, the tenths going quite across. When the telescope does not magnify above 30 times, the divisions need not be so minute. For the sake of those not conversant in trigonometry, the following is an easy method of determining the value of the divisions on the scale. Mark upon a wall or other place, the length of 6 inches, and to foe they are still closer locked up. Close ranks, order or distance is the constant and habitual order at which troops are at all times formed and move; open ranks, order or distance is only an occasional exception, made in the situation of parade, or in light infantry manoeuvres. Distance of files, relate to the trained soldier, but in the course of his tuition he must be much exercised at...
open files and ranks, and acquire thereby independence and the command of his limbs and body.

DISTANCE OF THE Bastions, in fortification, is the side of the exterior polygon. See fortification.

DISTRIBUTION. In a military sense, it specially applies to any division, or allotment, which is made for the purpose of warlike. Thus an army may be distributed about a country. In a more combined sense, it means the minute arrangements that are made for the interior economy of corps; as distribution of pay or subsistence, distribution of allowances, &c.

DISTRICT, in a military sense, one of those parts into which a country is divided, for the conveniences of command, and to secure a ready co-operation between distant bodies of armed men.

DITCH. See fortification.

To drain a Ditch, is to make the water run off into lower ground, by means of small trenches cut for this purpose.

DIVERSION, in military history, is either the enemy is attacked in one place where he is weak and unprovided, in order to draw off his forces from making an irruption some where else; or where an enemy is strong, and by an able manoeuvre he is obliged to detach part of his forces to resist any faint or menacing attempt of his opponent. To derive advantage from a diversion, taken in an extended acceptation of the term, it is necessary, that one state should have greater resources than another; for it would be absurd to attack the territories of another before you had secured your own.

It is likewise requisite, that the country you attack by stratagem or diversion, should be easy of access, and the invasion you make must be prompt, vigorous and unexpected, directed against a weak and vulnerable quarter. A little good fortune is however essential to render a diversion perfectly successful, as all the ways and means by which it ought to be made, cannot be reduced to rule.

The most memorable instance of a diversion well executed, which we meet with in ancient history, was performed by Scipio in Africa, whilst Annibal carried the war into Italy. In 1550, a diversion no less remarkable, was practised by the imperial and allied armies against the Swedes.

DIVISIONS of a battalion, are the several platoons into which a regiment or battalion is divided, either in marching or fighting; each of which is commanded by an officer.

DIVISIONS of an army, are the number of brigades and squadrons it contains.

The advance, the main, and the rear guards are composed out of the several brigades, and march in front, in the centre, and in the rear of an army. Each army has its right wing, its centre, and its left wing. When armies march they advance in column, that is, they are divided into several squadrons and battalions of a given depth, successively formed upon one another. If an army be drawn out or displayed in order of battle it is usually divided into the first line, which constitutes the front, the second line, which makes the main body, and the third line or reserve.

DOECAGON, in geometry, is a regular polygon, consisting of 12 equal sides and angles, capable of being regularly fortified with the same number of bastions.

DOECEAHEDRON, is one of the platonic bodies, or five regular solids, and is contained under 12 equal and regular pentagons.

The solidity of a dodecahedron, is found by multiplying the area of one of the pentagonal faces of it by 12; and this latter product by 3-5682 nearly.

All dodecahedrons are similar, and are to one another as the cubes of the sides; and their surfaces are also similar, and therefore they are as the squares of their sides; whence as $35682$ is to $12$, so is the cube of the side of any dodecahedron to the surfaces thereof; and as $2357$ is to $278516$, so is the cube of the side of any dodecahedron to the solidity of it.

Dogs. See nails.

DOLPHINS. See Sea.

DOLPHINS. See Cannon.

DOMMAGE, Fr. in a general acceptation of the term, signified in the old French service, the compensation which every captain of a troop, or company was obliged to make in consequence of any damage that their men might have done in a town, or on a march. If any disagreement occurred between the officers and the inhabitants, with respect to the indemnification, a statement of losses sustained was sworn to by the latter, before the mayor or magistrates of the place, who determined the same. But if the officers should refuse to abide by their decision, a remonstrance was drawn up and transmitted to the secretary at war, with a copy of the same to the intendant of the province. Officers have frequently been displaced or degraded on this account. Hence the term dommage is supposed to have been derived from the Latin words damnorum caput, and signifies the loss or privation of a step.

DONJON. See Dungeon.

DOSER, in military matters, is a sort of basket, carried on the shoulders of men, used in carrying the earth from one
part of a fortification to another, where it is wanted.

DOUBLE, in the military art, is the placing two or more ranks, or files into one.

Double your ranks, is for the 2d, 4th, and 6th ranks (when so drawn up) to march into the 1st, 3d, and 5th; so that of 6 ranks they are made but 3, which is not so when they double by half files, because then 3 ranks stand together, and the 3 other come up to double them; that is, the 1st, 2d, and 3d, are doubled by the 4th, 5th, and 6th, or the contrary.

Double your files, is for every other file to march into that which is next to it on the right or left, as the word of command directs; and then the 6 ranks are doubled into 12, the men standing 12 deep; and the distance between the files is double what it was before. By this method 3 files may be doubled into 6, &c.

To Double round, in military movements, is to march by an inversion of a second line, on the extremity of a first line, thereby to outflank an enemy.

Double en suite. See Tenaille.

Double. Fr. a small iron socket which is at the heel of the bayonets, and receives the extreme end of the musquet, so as to be firmly united together.

Douille likewise signifies, the cavity which belongs to the round piece of iron that is fixed to the end of the ramrod, by means of two nails through two small holes, called yeux or eyes, to which the worm is attached.

To Draw, a word of command.

Dragoon, Fr. some old pieces of artillery were anciently so called. The Dragoon was a 40-pounder; the Dragoon Volt. a 32. But neither the name nor the size of the calibre of either piece is now in use.

Dragoner, Fr. According to the French acceptance of the term, is to attack any person in a rude and violent manner; to take any thing by force; to adopt prompt and vigorous measures; and to bring those people to reason by hard blows, who could not be persuaded by fair words.

Dragoons, in military affairs, are a kind of horsemen, or cavalry, who serve both on horseback, and foot; being always ready on every emergency, as being able to keep pace with the horse, and to do infantry duty. In battle, or on attacks, they generally fight sword in hand after the first fire. In the field they encamp on the right and left of the lines. They divide into brigades, regiments, and squadrons. Their martial music is the clarion or trumpet. The first regiment of dragoons in England was raised in 1601, and called the royal regiment of dragoons of North Britain. This name is derived from the Latin word Draconarii, used amongst the Romans. The standard of the Roman cavalry bore as its device a dragon; as that of the infantry bore an eagle.

To Draught, is to persecute by abandoning a place to the rage of the soldiers.

Drag-rap, See Ropes, See Bricole.

Drain or DRAIN, in the military art, is a trench made to draw water out of a ditch, which is afterwards filled with hurdles and earth, or with fascines, or bundles of rushes and planks, to facilitate the passage over the mud. See Trench.

Drake, a small piece of artillery.

Draught, a plan or delineation of any place; a body of troops selected from others.

To Draught, to draw forces from one brigade, &c. to complete another; to select a proportion from brigades, regiments, or companies for any particular service.

Draught-hooks, in a gun-carriage, are fixed to the transom-bolts on the cheeks of artillery carriages, near the trunnion holes and trails: they are used to draw the guns backwards and forwards by men with draw ropes fixed to those hooks.

Draughted, the soldiers of any regiment being allotted to complete other regiments are said to be draughted.

Draughts, the name by which the soldiers of any regiment are divided to assist the engineers in drawing plans, fortifications, and surveying; every officer should endeavor to be a good draughtsman; and every corps ought to have a master to teach in camp or quarters.

To Draw, to delineate or make a sketch.

Draw Ramrod, a word of command, used in the drill exercise, on which the soldier draws his ramrod half from the pipes, and seizing it back hand and hand by the middle, waits for the signal for the next motion, when he turns it round, and with an extended arm, places the butt of the rod about one inch in the muzzle of the firelock, in which position he waits for the command ram down cartridge.

Draw Swords, a word of command in the sword exercise of the cavalry.

The drawing of swords is performed in 3 motions. 1st. Bring the right hand smartly across the body to the sword knot, which being placed on the wrist, and secured by giving the hand a couple of turns inwards, seize the hilt of the sword. 2d. Draw the sword with an extended arm; sink the hand till the hilt of the sword is immediately against the left nipple, the blade of the sword perpendicular, and the back of the hand outwards. 3d. Bring down the hilt till in a line with the bridle hand, the blade perpendicular, the edge turned towards the horse's left ear.

Officers of infantry, when the men are under arms, draw their swords without waiting for any word of command.
To DRAW off, to retire.
To DRAW on, to advance.
To DRAW out, to call the soldiers forth in array for action.
To DRAW up, to form in battle array.
DRAWING. See BRIDGE.
DRAWING, in a military sense, is the art of representing the appearances of all kinds of military objects by imitation, or copying, both with and without the assistance of mathematical rules.

DRESS—military. The clothing of the army is generally called uniform, every part of which should facilitate, and not hinder, the various motions of the manual exercise. A soldier, without regard to fashion or taste (to use the words of a modern author) should be dressed in the most comfortable and least embarrassing manner possible; and the keeping him warm, and leaving him the entire use of his limbs, are objects always to be had in view.

To DRESS, in a military sense, is to keep the body in such a relative position, as to contribute towards, and form a part of an exact continuity of line, upon as to contribute towards, and form a part of an exact continuity of line, upon as to contribute towards, and form a part of an exact continuity of line, upon as to contribute towards, and form a part of an exact continuity of line.

DRESSING of a battalion after the halt, is to bring all its relative parts in a line with the point, or object, towards which it was directed to move. Whatever correction is necessary, must be made by advancing or retiring the flanks, and not by moving the centre; which, having been the guide in the march, has properly stopped at the point where it has arrived.

DRESSING of a battalion when it is to retire, is to have some intelligent officer placed thirty paces in the rear, so as to stand perpendicular to the front directing sergeant, by whom the direction of the march is to be ascertained, as the officer will, of course, be in the line, or nearly so, of the directing sergeant.

DRESS-ER, Et. See to DRESS.

DRESSING to excess in the army is at all times highly criminal, but upon service it ought never to be overlooked; and the consequence will be a trial by a court martial. It has been productive of almost innumerable mischiefs, and is a most detestable and horrid practice. Whatever an unofficed officer shall be found drunk on his guard, party, or other duty, under arms, shall be cashiered; any non-commanded of a soldier, so drunken, shall suffer such corporal punishment as shall be inflicted by the sentence of a court martial. Act of War.

To DRILL, to teach young recruits the first principles of military movements and positions, &c.
To be sent to DRILL, to be placed under the command of the drill officer, or non-commissioned officer, and made to join The recruits in performing the manual and platoon exercise, &c. This is sometimes ordered as a punishment to those who are perfect in their exercise, when a battalion, company, or individual has done something to merit exposure.

DRIVERS of baggage or artillery, men who drive the baggage, artillery, and stores, having no other duty in the army.

DRUM, is a martial musical instrument in the form of a cylinder, hollow within, and covered at the two ends with vellum, which is stretched or slackened at pleasure, by means of small cords and slidin-learners. This instrument is used both by infantry and artillery; which is done in several manner: The drum was first invented by Bacchus, who, as Polyenus reports, fighting against the Indians, gave the signal of battle with cymbals and drums; and the Saracens, who invaded Christendom, introduced the drum into the European armies. The various beats are as follow, among the British.

The general, is to give notice to the troops that they are to march.
The assembly, to order the troops to The troop, to repair to the place of rendezvous, or to their colors.
The march, to command them to move, always with the left foot first.

Tat-too, to order all to retire to their quarters.
The reveille, always beats at break of day, and is to warn the soldiers to rise, and the sentinels to forbear challenging, and to give leave to come out of quarters.

To arms, for soldiers who are dispensed, to repair to them.
The retreat, a signal to draw off from the enemy. It likewise means a beat in both camp and garrison a little before sun-set, at which time the gates are shut, and the soldiers repair to their barracks.
The alarm, is to give notice of sudden danger, that all may be in readiness for immediate duty.
The parley, is a signal to demand The drum-major, some conference with the enemy.

D.R.U.., or Drummer, the person who beats the drum.

To DRIVE, are two sorts of large basons of copper or brass, rounded at the bottom, and covered with vellum or grat skin, which is kept fast by a circle of iron, and several holes, fastened to the body of the drum, and a like number of screws to stretch it at pleasure. They are used among the horne.

Drum-major, is always that person in the regiment, who beats the best drum, has the command over the other drums, and teaches them their duty. Every regiment has a drum-major.
**DUE**

### DUEL-STICKS

The sticks with which the drummer beats his drum.

### DUE

A single combat, at a time and place appointed, in consequence of a cartel or challenge. Dueling was anciently authorized; but the motive of the duellists was the good of their country, when one, or a small number of combattants were chosen to save the blood of a whole army, and decide, by victory or death, the quarrels of kings or nations. Thus it was with Goliath and David, the Horatii and Curatii, and several others.

Dueling was so general a method of determining differences among the nobles, that even ecclesiastics were not excused; only, to prevent their being stained with blood, they procured champions to fight for them. None were excepted from combat, but sick people, cripples, and such as were under 21 years of age, or above 60. Justs and tournaments, doubtless, rendered duels more frequent.

No officer or soldier shall pretend to send a challenge to any other officer or soldier, or fight a duel; if a commissioned officer, on pain of being cashiered; if a non-commissioned officer or soldier, of suffering corporal punishment, at the discretion of a court martial. Articles of war.

Pharaoh's king of the Gaults, in the year 420, issued the following edict against dueling.

>Whereas it has come to our royal notice and observation, that in contempt of all laws, divine and human, it has of late become a custom among the nobility and gentry of this our kingdom, upon slight and trivial, as well as great and urgent provocations, to invite each other into the field, there, by their own hands, and of their own authority, to decide their controversies by combat: we have thought fit to take the said custom into our royal consideration, and find, upon inquiry into the usual causes whereon such fatal decisions have arose, that by this wicked custom, mangle all the prospects of our holy religion, and the rules of right reason, the greatest act of the human mind, forgiveness of injuries, is become vile and shameful; that the rules of good society and virtuous conversation are hereby inverted; that the loose, the vain, and the impudent, insult the careful, the discreet, and the modest; that all virtue is suppressed, and all vice supported, in the one act of being capable to date to death. We have also further, with great sorrow of mind, observed that this dreadful action, by long impunity, (our royal attention being employed upon matters of more general concern) is become honorable, and the refusal to engage in it ignominious. In these our royal cares and inquiries, we are yet farther moved to understand, that the persons of our present worth, of most hopeful abilities, accompanied with the strongest passion for true glory, are such as are most liable to be involved in the dangers arising from this licence. Now, taking the said promises into our serious consideration, and well weighing, that all such emergencies (wherein the mind is incapable of commanding itself, and where the injury is too sudden, or too exiguous to be borne) are particularly provided for by laws heretofore enacted; and that the qualities of host injuries, like those of ingratitude, are too nice and delicate to come under general rules; we do resolve to blight this fashion, or wantonness of anger, out of the minds of our subjects, by our royal resolutions declared in this edict, as follows:—No person who either sends or accepts a challenge, or the posterity of either, though no death ensues thereupon, shall be, after the publication of this our edict, capable of bearing office in these our dominions;—The person who shall prove the sending or receiving a challenge, shall receive to his own use and property, the whole personal estate of both parties; and their real estate shall be immediately vested in the next heir of the offenders, as ample a manner as if the said offenders were actually deceased:—In cases where the laws (which we have already granted to our subjects) admit of an appeal for blood: when the criminal is condemned by the said appeal, he shall not only suffer death, but his whole estate, real, mixed, and personal, shall, from the hour of his death, be vested in the next heir of the person whose blood he spilt:—That it shall not hereafter be in our royal power, or that of our successors, to pardon the said offenders, or restore the offenders to their estates, honor, or blood, for ever;—Given at our court, at Blois, the eighth of February, 420, in the second year of our reign.

Dueling was authorized before the Normans came into England, but the practice was not so frequent as after the conquest.

### DULEDGE

A peg of wood which joins the ends of the fellows, forming the circle of the wheel of a gun carriage; and the joint is strengthened on the outside of the wheel by a strong plate of iron, called the duledge plate.

### DUMB-BELLS

Weights which were used in drilling the soldier, who held one in each hand, which he swung backwards and forwards, to open his chest, increase muscular strength, throw back his shoulders, and accentuate him to that freedom of action in the arms, and to that erect position of body which are so essentially necessary to a soldier.

The following method of exercising recruits with the dumb-bells, is extracted from a work entitled Military Instruction.

The dumb-bells being placed one on
to be observed, respecting duties in general.

When field or other commissioned officers, are given out at head quarters for one day, they cannot be taken off to be put on any other day.

No officer is allowed to exchange his day with another, after he has been put in orders for it, without leave of the commanding officer of his regiment.

Guards, or detachments, which have not marched off from the parade, are not to be reckoned as for a day done; but, if they should have marched from the parade, it stands for a day done, though they should be dismissed immediately.

If any officer's tour of duty for the picquets, general courts martial, or duty of fatigue, happen when he is on duty, he shall not make good such day when he comes off.

No regiment can demand a tour of duty, unless it has marched off the place of parade, and beyond the main guard.

General courts martial that have assembled, and the members sworn in, shall be reckoned for a day, though they should be dismissed without trying any person.

Whenever the picquets are ordered to march to any parade, it is not to be accounted a day, unless they march off that parade.

All commands in the regular forces, fall to the eldest officers in the same circumstances, whether of cavalry or infantry, entire, or in parties. In case two commissions, of the same date, interfere, a retrospect is to be had to former commissions, or to lot.

Officers, on all duties under arms, are to have their swords drawn, without waiting for any word of command for that purpose.

E.

EAGLE, Black-Eagle, an order of military knighthood in Prussia, instituted by the elector of Brandenburg, in 1715, on his being crowned king of Prussia.

The knights of this order wear an orange colored robe, from which is suspended a black eagle.

White-Eagle, is a like order in Poland, instituted in 1735, by Stanislaus V., on occasion of the marriage of his son Casimir to the daughter of the great duke of Lithuania. The knights of this order wear a chain of gold, to which a silver eagle, crowned, is suspended.

The white headed eagle, peculiar to America, is the standard of the United States.

EAG, The standard of the ancient Romans. In a general sense, it formerly meant the standard of the Roman armies; in a more limited acceptance, the sign of flag of the several legions.

The standard of the German empire.
was an eagle with two heads, referring to
the eastern and western Roman empires,
whose successors they claimed to be, and
called themselves Cesar, or Caesar.
The difference between the Roman and
the Imperial eagle consists in this, that
the first were eagles of gold or silver,
fixed at the end of a pike, having their
wings extended, and holding the light
ning in their claws; the second are eagles
painted or embossed upon the colors and
standards of the emperors. The eagle like
wise signifies, in a figurative sense, the
German empire, now extinct.
EARL-MAARSHAL. An officer who
has the care and direction of military
soulemonties. The dukes of Norfolk are
by hereditary right, earl marshal of Eng
land.
EARTH-bag. See BAG.
EASE, in a military sense, signifies a
prescribed relaxation of the frame, from
the erect and firm position which every
well disciplined soldier should observe. He
is, on no account to lounge, or in his com
mon gait so far to give way to an idle fluc
tuation of his limbs, as to feel himself
constrained when he returns to duty. A
habit of this sort will gradually gain upon
recruits, if they are not corrected during
the intervals of drill.
To stand at EASE, in a technical accep
tation of the term, is to draw the right
foot back about six inches, and to bring
the greatest part of the weight of the body
upon it. The left knee must be a little
bent, and the hands brought together
before the body, the right hand in front.
But the shoulders must invariably be kept
back and square, the head to the front,
and the whole carriage of the person be
unconstrained.
In cold weather, when standing at ease,
the men are permitted by command, to
move their limbs without quitting their
ground.
Stand at EASE, (from the support) on
this command the soldier retires his right
foot 6 inches, bends his left knee, and
carrying the right hand smartly across the
body, seizes the firelock by the small of
the butt, and raises it sufficiently to slope
it over his left shoulder, and relieve the
left arm from the pressure of the cock.
In some corps, instead of seizing the
small of the butt with the right hand, they
only place the hollow of the hand below
the left elbow.
EASE arm, a word of command, given
immediately after the order, to handle
arms, by which the soldier is directed to
drop his right hand to the full extent of
the arm, from the top of the ramrod on
the front of the sling, with his fingers
spread along it.
EAU, Fr. water, is a principal object
to be considered, whenever an army ad
vances, retreats, or encamps. It is the
quarter master general's business, through
his subordinate deputies, to se
ure this indispensable necessary of life.
Small running rivulets are preferable to
large rivers, because the latter cannot be
so easily turned for the convenience of the
army; whereas the former may be al
ways stopped, or diverted from their na
true course.
Wells are never resorted to, but in cases
of absolute necessity. Stagnant or pond
water is in general unwholesome, and
rarely limpid or clear.
Haut EAU. High water.
EAUX MORTES or AUERES, Fr. The
water which remains after the first boil
ing of saltpetre. It has a bitter salt taste,
and is used to fill the tubs a second time.
Pettie Eaux, Fr. The water which
remains after the saltpetre has been boiled
to a certain degree. See SALTPETRE.
ECHANTILLON, Fr. means literally
a pattern or model. In a military sense,
it signifies a plank, which is covered on
one side with iron, and serves to finish the
mouldings, &c. of a piece of ordnance.
ECHARPE, Fr. a scarf. In ancient
times, a military mark to distinguish offi
cers and soldiers from the rest of the
people. Before a regular clothing was
adopted among the nations in Europe,
officers and soldiers appeared with two
scarfs of different colors, which crossed
each other before and behind, in order to
point out the country and the corps to
which the wearer of it belonged. The
scarf was preserved among the French,
at late down as the reign of Louis the
XIVth. It consisted of a piece of white
silk, which previous to the revolution,
was the national color of France.
Scarfs, however, were continued much
later among other nations, particularly
among the Germans, who wear them to
this day across their uniforms. Crosses
belts succeed the scarf.
En ECHARPE, in the military art.
To better en echarpe, is to lie obliquely,
or sideways. See BATTERY.
ECHAUGETTE, in military history,
signifies a watch-tower, or kind of centry
box.
ECHELLE, Fr. scale. In a mathemat
ical sense, is a straight line drawn
double, which is divided into a certain
number of parts, each part containing as
many toes or yards, &c. as the size of
the chart or paper will admit, which are
again reduced into feet.
Echelle, Fr. ladder, in civil and mi
litary architecture, means a machine,
which is made of two side pieces or arms
that receive a certain number of small
steps, at equal distances from one another.
These echelles or ladders, are of two kinds:
large and small. The small ladders are
used to descend into the ditches of forti
fied places, and the large ones for scaling
the walls, &c. See SCALING LADDERS.
ECHÉLON, Fr. from echelle, a lad
der. A position in military tactics, where
each division follows the preceding
one, like the steps of a ladder; and so on.
convenient in removing from a direct to an oblique, or diagonal line. When troops advance in echelon, they almost invariably adopt the ordinary time. Hence to march in echelon, may not improperly be said to approach towards any given object by a gradual movement.

Echelon, or positions, are not only necessary and applicable to the immediate attacks and retreats of great bodies, but also to the previous oblique or direct changes of situation, which a battalion, or a more considerable corps already formed in line, may be obliged to make to the front or rear, or on a particular fixed division of the line.

The oblique changes are produced by any wheel of less than the quarter circle of divisions from line, which places them in the echelon situation. The direct changes are produced by the perpendicular and successive march of divisions from line to front, or rear. See Amor. Inf. Ltd.

ECLAIREURS, Fr. A corps of grenadiers raised by Bonaparte, in France, who from their celebrity of movement were compared to lightnings.

ECLOPES, a French military term, to express those soldiers who, though invalids, are yet well enough to follow the army. Among these may be classed dragoons, horsemen, whose horses get suddenly lame, and cannot keep up with the troop or squadron. They always march in the rear of a column.

ECLOPES, Fr. See ECLOPES.

ECOLAP, Fr. See ECOLOPES.

ECONOMY, in a military sense, implies the minute, or interior regulations of a regiment, troop, or company. Hence regimental economy.

ECORE, Fr. Step stone. Cité en ecore, signifies a very steep descent.

ECOUFFE, Fr. An instrument used by the pioneers. See OUTILL.

ECOUILLON, Fr. A muskkin or drag. The spunge made use of to clean and to cool the inside of a cannon, when it has been discharged.

ECOVILLONER, Fr. To clean a piece of ordnance before it has been fired, or to cool it after.

ECRET, Fr. To batter or fire at the top of a wall, redoubt, parapet, &c. so as to dislodge or drive away the men that may be stationed behind it, in order to render the approach more easy. Enétre les points des palissades, is to blunt the sharp ends of the palisades. This ought always to be done before you attack the covert way, which is generally fenced by them.

ECU, Fr. A large shield which was used by the ancients, and carried on their left arms, to ward off the blows of a sword or sabre. This instrument of defence was originally invented by the Samnites. The Moors had esc or shields, sufficiently large to cover the whole of their bodies. The cipolet of the Romans, only differed from the esc in shape; the former being entirely round, and the latter oval.

EDGE. The thin or cutting part of a sword or sabre.

EDICT See PROCLAMATION.

EDUCATION, in a military sense, implies the training up of youth to the art of war; the first object to be considered is, whether nature has given the young man the talents necessary for the profession or not; for here sense, parts, courage, and judgment, are required in a very eminent degree. The natural qualities of an officer are, a robust constitution, a noble open countenance, a martial air, to reduce activity, phlegm to moderation, to change his transports, and patience to support the toils and fatigue of war, almost without seeming to feel them. Acquired qualities in an officer consist in moral virtues and sciences; by the first is meant, a regular good conduct, economy, prudence, and a serious application to what regards the service. Military sciences indispensably demand the reading of ancient and modern historians; a good knowledge of the languages of Europe.

It is in ancient authors we find all that is excellent, either in politics or war; the make and form of arms are changed since the invention of gunpowder; but the science of war is always the same. On one hand, history instructs us by examples, and furnishes us with proofs of the beautiful maxims of virtue and wisdom, which morality has taught us; it gives us a kind of experience, beforehand, of what we are to do in the world; it teaches us to regulate our life, and to conduct ourselves with wisdom, to understand mankind; ever to carry ourselves with integrity and probity, never to do a mean action; and to measure grandeur with the level of reason; that we may despise it when dangerous or ridiculous.

On the other hand, history serves to give us a knowledge of the universe, and of the different nations which inhabit it; their prejudices, their governments, their interests, their commerce, their politics, and the law of nations. It shews us the origin of the illustrious men who have reigned in the world, and given birth to their successors.

The knowledge of military mathematics, regards the operations of war in general; every thing there consists in proportion, measure, and motion; it treats of marches, encampments, battles, artillery, fortification, lines, sieges, mines, ammunition, provisions, fleets, and every thing which relates to war; but no perfect notion can be acquired without geometry, natural philosophy, mechanics, military architecture, and the art of drawing.

The study of languages is most useful to an officer, and he feels the necessity of it, in proportion as he rises to higher employments. Thus the Latin, German,
A battalion is a practical education must have upon the soldier in the higher ranks! What may be expected of an officer thus prepared for every event? That the conduct of their leader operates with a powerful impression on all those who are under his command, is not to be denied. Exercise begets courage and energy, and at a war is a trade, those who possess these two qualities in the highest degree, must predominate.

Effective men, in a military sense, are soldiers fit for service; as an army of 30,000 effective (fighting) men.

Eléguilletés. Shoulder knots. To élance, to throw darts, &c.

Élément, in a military sense, signify the first principles of tactics, fortification, and gunnery.

Ellipsis, an oval figure, made by the section of a cone, by a plane dividing both sides of a cone; and though not parallel to the base, yet meeting with the base when produced.

Élevation, in gunnery, that comprehended between the horizon and the line of direction of either cannon or mortars; or it is that which the chace of a piece, or the axis of its hollow cylinder, makes with the plane of the horizon.

Embarcation. The act of putting troops on board of ship, when destined to be conveyed on an expedition.

Embarkation, I. Of ordnance and stores.—The first thing necessary to prepare a list of all the articles to be embarked, with the weight of each. This list must have a large column for remarks. The tonnage required for bulky articles will generally one third more than their actual weight; but the tonnage of ordnance, shells, shot, &c. will be equal to their weight. If vessels be paid according to the tonnage, the masters will of course stow away as much as the ships will hold; but if, by the voyage, they will be averse to loading their ships too much; a naval officer should therefore always attend to see that the ships are properly stowed.

Ordnance and stores may be embarked either for the purpose of merely transporting them to another situation, or for a military expedition. In the first case,
each ship must be stowed with as much as it will carry, and every article that relates to one particular species of service or ordnance, must be put on board the same ship; that in case one ship be lost, the others may remain in themselves complete. This principle must of course be likewise attended to in an embarkation for an expedition; but a more particular distribution must take place of the stores when on board. With each piece of ordnance must be placed everything necessary for its service; its side arms, carriage, limber, ammunition, &c. so as to be readily come at, when required to be dismounted. If it be an embarkation of ordnance, &c. for a siege, not only every thing necessary for the service of the pieces of ordnance should be arranged with them; but also every thing necessary for the construction of the battery on which they are mounted. It will be advisable in this case, to put different kinds of ordnance in the same ship, in proportions according to the service required of them. In general it will be best to put the heavy articles in first, and every thing that is light, easy to be removed, or likely to be first wanted, on the top. Previous to embarkation, the guns, carriages, wagons, &c. must be dismounted, but first numbered as follows: and the number of each article marked in the list, in the column of remarks. Give each piece of ordnance and its carriage the same number. Give the ammunition and other carriages, different numbers from the ordnance carriages. Then give every limber, whether of ordnance carriage, ammunition carriage, or wagon, the number of its respective carriage. If for a simple transport, arrange the small stores, side arms, &c. according to their several kinds; but if for an expedition, every thing belonging to each particular piece of ordnance must be collected together, and the cases or chests in which they are put, marked with the number of the piece of ordnance to which they belong, their kinds and description. If there be any doubt of the different parts of the carriages, being made with that uniformity, so essentially necessary, every part which is separated, must bear the number of its carriage. This precaution at any rate may be a good one, if the same vessel contain different kinds of ordnance or carriages. The axletrees need not be taken off the carriages, if the vessel be of a sufficient size to stow them when fixed, as they are not easily replaced without workmen and a tedious operation. When a carriage is dismounted, all the small articles, such as elevating screws, lynch pins, drag washers, cap squares, &c. must be carefully collected, and secured in a box, marked with the description of stores, and number of the carriage to which they belong. All carriages or wagons embarked with their axletrees fixed, must be arranged in the ship, side by side, and alternately front and rear, that their axletrees may not interfere with each other, and take too much room. Every transport or other vessel employed in carrying troops or stores for an expedition, should be numbered on the quarters and on the bows, with figures as large as 2 or 3 feet, and on the sails, that they may be known at a distance. The number of the ship, her name and tonnage, and the master's name should be entered in the list of the stores which she carries.

In disembarking ordnance and stores, they must be landed exactly as they were shipped. The carriages and wagons must be mounted as soon as possible, and every kind must be arranged as far from the shore as possible to prevent confusion. If the disembarkation take place in the presence of an enemy, the vessels of course must be loaded accordingly; and the field ordnance, with their carriages, ammunition, &c. must be so arranged as to be first landed, and with the greatest care possible. In this case, the entrenching tools must also be kept in the greatest readiness.—Aide Memoire.

2. Of troops.—All transports taken into the public service, are under the direction of the naval agents, and of their agents at the different ports at home and abroad. No troops or other persons can be put on board them, or victualled, but by an order from the navy department, or one of its agents. Troops embarked on board transports, or ships of war (except as marines) are only allowed two thirds of a seaman's allowance of provisions. (See the word RATION.) It is therefore necessary to divide the men into messes of 6 each. Six women to 100 men embarked on foreign service, are allowed rations; and to women to 100 men on home service. The births on board transports, are usually male 6 feet square, and each admits 6 men at a time; but one third of the men should always be on deck; these love 6 men (or one mess) is set off to each birth, one third of whom are always on watch. The commanding officer of the troops on board a transport, has a right to peruse the charter party of the ship, which points out every different article, as firing, candles, boats, utensils, &c. which the ship is engaged to find for the use of the troops on board. It likewise expresses the part of the ship allotted to the officers, to the mate, and the agent, should there be one on board. EMBARGO, a prohibition for any ships to leave a port; generally enforced on the rupture of any two or more nations, or by law.

EMBARK. See Embarkation.
EMBARRASS, Fr. a cheval de frise.
EMBATTLE. See Battle Array.
EMBEZZLING, * of military stores, is punishable by the articles of war, but not at the discretion of a general court martial, as the offender must be sentenced to be cashiered.

EMBELLISH, Fr., a prompt, sudden, and vigorous attack, which is made against the covert way and out works of a fortified place. This military operation is executed by means of a rapid march, and an unexpected appearance before a town, followed by an instantaneous assault upon the out posts of the enemy, who is thrown into so much confusion, that the assailants force their way at the same time, and endeavor to get possession of the town.

EMBUCHURE du canon, Fr. the muzzle of a cannon.

EMBRASSEUR, Fr. from embrasser, to embrace or close round. A piece of iron, which grasps the trunnions of a piece of ordnance, when it is raised upon the boring machine, to widen its caliber.

EMBRASURE, in fortification, is an opening, hole, or aperture in a parapet, through which cannon is pointed to fire at the enemy. Embrasures are generally made from 10 to 12 feet distant from one another, every one of them being from 6 to 9 feet wide without, and 2 or 3 within: their height above the platform is 12 or 3 feet towards the town, and 14 feet on the other side towards the field, so that the muzzle of the piece may be sunk on occasion, and brought to fire low. See BATTER Y and FORTIFICATION.

EMBUSE, Fr. See AMBUSH.

EMERILLON, Fr. a mislin, or small piece of brass or cast iron, which does not exceed a pound weight.

EMERY, a ground iron ore. The kntion is required in this and every other particular, to the cleanliness of the town, as they excite to emulation, and are full of instruction.

EMERON, EMBELLON, I,&a;~ a mislin, or small accommodation.

EMBUSCADE, Fr. See AMBUSH.

EMINENCE, in military art, a high or rising ground, which overlooks and commands the low places about it: such places, within cannon shot of any fortified place, are a great disadvantage; for if the besiegers become masters of them, they can from thence fire into the place.

EMISSARY, a person sent by any power that is at war with another, for the purpose of creating dissaftection among the people of the latter.

EMOUSSER, Fr., to blunt, to dull. In a military sense, it signifies to take off the four corners of a battalion, which has formed a square, and to give it, by those means, an octagon figure; from the different obtuse angles of which it may fire in all directions.

EMPALE. See FORTIFY.

EMPATTEMENT, in fortification. See TAPPEMENT.

EMPILLEMENT, Fr. from emplir, to pile up. The act of disposing balls, grenades, and shells, in the most secure and convenient manner. This generally occurs in arsenals and citadels.

EMPRIZE. See EXPEDITION.

EMULATION, in a military sense, is a noble jealousy, without the slightest tincture of envy, whereby gentlemen endeavor to surpass each other in the acquisition of military knowledges. Is not the want of encouragement to excite emulation, the great cause of misconduct among military men? An officer who is not protected, who is never sure of the least favor, neglects himself, and takes less trouble to acquire glory, rarely heard of, though merited by the bravest actions, than to enjoy the tranquillity of an ordinary reputation. Brave actions, by whom never accomplished, should never be buried in oblivion, as they excite to emulation, and are full of instruction.

ENAMBUSH. See AMBUSH.

ENCAMPMENT, the pitching of a camp. See CAMP.

In the regulations published by authority, are particularly enjoined the following:

Attention relative to Encampments. On the arrival of a brigade, or a battalion, on the ground destined for its camp, the quarter and rear guards of the respective regiments will immediately mount; and when circumstances require them, the advanced pickets will be posted. The grand guards of cavalry will be formed, and the horses picqueted. The tents will then be pitched, and till this duty is completed, the officers are on no account to quit their troops or companies, or to employ any soldier for their own accommodation.

Necessaries are to be made in the most convenient situations, and the utmost attention required in this, and every other particulars, to the cleanliness of the camp.

If circumstances will allow the ground on which a regiment is to encamp to be previously ascertained, the pioneers should make these, and other essential conveniences, before the corps arrives at its encampment.

Whenever a regiment remains more than one night in a camp, regular kitchens are to be constructed.

No tents, or huts, are to be allowed in front of, or between the intervals of the battalions. A spot of ground for this purpose should be marked by the quarter-master, with the approbation of the commanding officer.

On arriving in a camp which is intersected by hedges, ditches, or by boggy ground, regiments will immediately make openings of communication, of 60 feet in width.

The ground in front of the encampment is to be cleared, and every obstacle to the movement of the artillery and troops is to be removed.
take care that their communication with the nearest grand route is open, and free from any impediment.

ENCEINTE, in fortification, is the interior wall or rampart which surrounds a place, sometimes composed of bastions or curtains, either faced or lined with brick or stone, or only made of earth. The enceinte is sometimes only flanked by round or square towers, which is called a Roman wall.

ENCELOUER un canon, Fr. to spike the cannon.

ENCELOUER, Fr. to spike the cannon.

ENCLOSURE, the nearest grand route is open, and free from any impediment.

Articles of war, which direct that any state and condition of any thing that has been spiked.

ENCROACHMENT, the advance of a place besieged; so called (by the Romans) on a three-legged stand, the bottom of which has a ring to place it upon the shell; and at the end of the screw is fixed a hand screw by means of a collar, which being screwed on the fuse, by turning the upper screw, draws out or raises the fuse.

ENGINEER, is commonly applied to an officer who is appointed to inspect and direct all attacks, defenses, &c. of a fortified place, or to build or repair them, &c.

The art of fortification is an art which stands in need of so many others, and whose object is so extensive, and its operations accompanied with so many various circumstances, that it is almost impossible for a man to make himself master of it by experience alone, even supposing him born with all the advantages of genius and disposition possible for the knowledge and practice of that important art. We do not pretend to deny that experience is of greater efficacy, than all the precepts in the world; but it has likewise its inconveniences as well as its advantages; its fruits are of slow growth; and whoever is content with pursuing only that method of instruction, seldom knows how to act upon emergencies of all kinds, because old age incapacitates him from exercising his employment. Experience teaches us, through the means of the errors we commit ourselves, what practice seldom happens, it is certain nothing less than a happy genius, a great share of theory, and intent application joined to experience, can make an engineer one day shine in his profession. From whence it follows, that less than the three first of those four qualities, should not be a recommendation for the reception of a young gentleman into a corps of engineers.

The fundamental sciences, and those absolutely necessary, are arithmetic, geometry, mechanics, hydraulics, and drawing. Without arithmetic, it is impossible to make a calculation of the extent, and to keep an account of the disbursements made, or to be made; nor without it can an exact computation be made upon any occasion whatsoever.

Without geometry, it is impossible to lay down a plan or map with truth and exactness, or settle a draught of a fortification, or calculate the lines and angles, so as to make a just estimation, in order to trace them on the ground, and to
measure the surface and solidity of their parts.

Mechanics teach us the proportions of the machines in use, and how to increase or diminish their powers as occasion may require; and likewise to judge whether the use which our own imagination suggests to us, will answer in practice.

Hydraulics teach us how to conduct waters from one place to another, to keep them at a certain height, or to raise them higher.

How fluently soever we may express ourselves in speaking or writing, we can never give so perfect an idea as by an exact drawing; and often in fortification both are wanted; for which reason the art of drawing is indispensably necessary for engineers.

To the qualities above mentioned, must be added activity and vigilance; both of which are absolutely necessary in all operations of war, but especially in the attack of such places as are in expectation of success. The besieged must have no time allowed them for consideration; one hour lost at such a juncture often proves irreparable. It is by their activity and vigilance, that engineers often bring the besieged to capitulate, much sooner than they would have done, if those engineers had not pushed on the attack with firmness and resolution. Want of vigilance and activity often proceed from irresolution, and that from weakness of capacity.

As the office of an engineer requires great natural qualifications, much knowledge, study, and application, it is but reasonable that the pay should be proportioned to that merit which is to be the qualification of the person employed: he must be at an extraordinary expense in his education, and afterwards for books and instruments for his instruction and improvement, as well as for many other things; and that he may be at liberty to pursue his studies with application, he must not be put to shifts for necessaries. It should likewise be considered, that if an engineer do his duty, be his station what it will, his fatigue must be very great, and to dedicate himself wholly to that duty, he should be divested of all other cares.

The word engineer is of modern date in England, and was first used about the year 1650, when one captain Thomas Rudd held the title of chief engineer. In 1600, the title given to engineers, was trench-master; and in 1622, sir William Pelham, and after him sir Francis Vere, acted as trench-masters in Flanders. In the year 1650, an engineer was called camp-master general, and sometimes engine-master, being always subordinate to the master of the ordnance.

At present the corps of engineers in Ireland consists of 1 colonel in chief, 1 colonel of ordnance, 1 chief engineer, 5 colonels, 5 lieutenant colonels, 18 captains, 15 captain lieutenants, and captains, 31 lieutenants, 16 second lieutenants.

The establishment of the corps of invalid engineers, comprises a colonel, lieutenant colonel, captain, captain lieutenant and captain, first lieutenant, and second lieutenant.

The corps of engineers in Ireland consists of a director, colonel, lieutenant colonel, major, captain, captain lieutenant and captain, and 2 first lieutenants.

During the administration of general Washington, the necessity of some military institute, or school, was frequently recommended; and in the administration that followed, the same policy was pursued; particularly at the period of raising the additional army in 1798. In the year 1790, military subjects were very much pressed upon congress, as arising out of the state of the world, and the necessity of being prepared to ward against the dangers which might arise. In 1800, the subject of military defence was discussed, and much zeal, and a very able and judicious report of the then secretary at war was laid before congress, in which it was proposed to establish a military academy to be divided into four general departments. 1. A fundamental school. 2. A school of artillerists and engineers. 3. A school of cavalry and infantry. 4. A naval school. The objects of this report fell to the ground. In 1802, (16 March) a law was passed, in which it was provided, Sect. 26. That the President of the United States is hereby authorized and empowered, when he shall deem it expedient, to organize and establish a corps of engineers, to consist of one colonel, with the pay, rank, and emoluments of a major; two assistant engineers, with the pay, rank, and emoluments of first lieutenants; two other assistant engineers, with the pay, rank, and emoluments of second lieutenants; and ten cadets, with the pay of sixteen dollars per month, and two rations per day: and the President of the United States is, in like manner authorized, when he shall deem it proper, to make such promotions in the said corps, with a view to particular merit, and without regard to rank, so as not to exceed one colonel, one lieutenant colonel, two majors, four captains, four first lieutenants, four second lieutenants, and so as that number of the whole corps shall, at no time, exceed twenty officers and cadets.

Sec. 27. And it further enacted, That the said corps when so organized, shall be stationed at West Point in the state of New York, and shall constitute a military academy; and the engineers, assistant engineers, and cadets of the said corps, shall be subject at all times, to do duty in such places, and on such service, as the President of the United States shall direct.
Sec. 38. And be it further enacted, That
the principal engineer, and in his absence
the next in rank, shall have the super-
intendence of the said military academy,
under the direction of the President of the
United States; and the secretary of war
is hereby authorized, at the public ex-
pense, under such regulations as shall
be directed by the President of the United
States, to procure the necessary books,
implements and apparatus for the use and
benefit of the said institution.

This school of engineers of the U. States
has been since augmented; and it is pro-
posed to place it at Washington city.

ENGINEY, the act of managing
artillery, also engines of war.

ENLARGEMENT, the act of going
or being allowed to go beyond prescribed
limits: as the extending the boundaries of
an arrest, when the officer is said to
be enlarged, or under arrest at large.

ENNEAGON, in geometry, or fortifi-
cation, is a figure consisting of 9 angles
and as many sides, capable of being for-
tified with the same number of bastions.

ENNEAGONE. See ENNEAGON.

ENROLLMENT, to place in orderly or re-
gular rows.

ENROLLED, Fr. enrollment. This
term, according to the military accepta-
tion of it in the French service, differs
from the words engagement, enlistment,
inasmuch as in some instances, the officer
enrolls or enlist a soldier without his con-
sent; whereas in others the soldier is
enrolled, after having declared that he
voluntarily enlisted.

ENROLLED, See ENLISTED.

ENSOCENCE, to cover as with a fort.

ENSEIGNE, Fr. the colors, origi-
nally derived from the Latin word Insig-
nies. The French designate all warlike
symbols under the term enseigne; but
they again distinguish that word by the
appellations of drapeaux, colors, and stan-
dards. Drapeaux or colors are particu-
larly characteristic of the infantry;
standards or standards belong to the caval-
ry. We make the same distinctions in
our service. See COLORS.

ENSEIGNE DE VICTAIRE, Fr. the low-
est commissioned officer in the French
navy.

ENSHELDED, to cover from the
enemy.

ENSIFORM, having the shape of a
sword.

ENSIGN, in the military art, a ban-
er, under which the soldiers are ranged
according to the different regiments they
belong to. See COLORS.

ENSIGN, or ensign-bearer, is an officer
who carries the colors, being the lowest
commissioned officer in a company of foot,
subordinate to the captain and lieutenant.
The word ensign is very ancient, being
used both by the Greeks and Romans,
and amongst both foot and horse. Ensi-
gins belonging to the foot, were either
the common ones of the whole legion, or
the particular ones of the manipuli. The
common ensign of the whole legion was
an eagle of gold or silver, fixed on the
top of a spear, holding a thunderbolt in
his talons as ready to deliver it. That
this was not peculiar to the Romans, is
evident from the testimony of Xenophon,
who informs us, that the royal ensign of
Cyrus was a golden eagle spread over a
shield, and fastened on a spear, and that
the same was still used by the Persian
kings. In the rustic age of Rome, the
ensigns were nothing more than a wisp of
hay carried on a pole, as the word mani-
PULUS properly signifies. The ensign of
the cavalry was a dragon; but there were
some of cloth, somewhat like our colors,
distended on a staff; on which the names
of the emperors were generally depicted.

The religious care the soldiers took of
their ensigns, was extraordinary: they
worshipped them, swore by them (as at
present several European powers do) and
incurred certain death if they lost them.
The Turks and Tartars make use of
horses tails for their ensigns, whose num-
ber distinguishes the rank of their com-
manders; for the Sultan has 7, and the
Grand Vizier only 3, &c.

ENTERPRISE, in military history,
under a undertaking attended with some hazard
and danger.

ENTERPRISER, an officer who un-
dertakes or engages in any important and
hazardous design. This kind of service
frequently happens to the light infantry,
light horse, and hussars.

ENTIRE, or rank ENTIRE, a line of
men in one continued row on the side of
each other. When behind each other,
they are said to be in file. See INDIAN
FILES.

ENTONNOIR, Fr. the cavity or hole
which remains after the explosion of a
mine. It likewise means the before-men-
tioned port-feu which is used to convey the
priming powder into the touch-hole of a
cannon.

ENTREPOSTS, Fr. magazines and
places appropriated in garrison towns for
the reception of stores, &c. In a mer-
cantile sense it means an intermediate
public warehouse, where goods were de-
posited, and from whence they might be
forwarded to different quarters within or
beyond the immediate confines of a
country.

ENTREPRENEUR, Fr. See Con-
TRACTOR.

ENVELOP, in fortification, a work
of earth, sometimes in form of a single
parapet, and at others like a small ram-
part: it is raised sometimes in the ditch,
and sometimes beyond it. Envelops are
sometimes so inclosed, to include a weak
ground, where that is practicable, with
single lines, to save the great charge of
horn works, crown works, and entails;
or where room is wanting for such large
works. These sort of works are to be seen at Besancon, Douay, Luxembourg, &c. Enveloped ditches are sometimes called sillsons, contregardes, conserves, lunettes, &c. which words see. 

EPAULE, in fortification, denotes the shoulder of a bastion, or the place where its face and flank meet, and form the angle, called the angle of the shoulder. See FORTIFICATION.

EPAULEMENT, in fortification, is a sort of breast work to cover the troops in front, and sometimes in flank. In a siege, the besiegers generally raise an equalement of 8 or 10 feet high, near the entrance of the approaches, to cover the cavalry, which is placed there to support the guard of the trenches. These works are sometimes made of filled gabions, or fascines and earth. This term is frequently used for any work thrown up to defend the flank of a post, or any other station, and is sometimes taken for a demi-bastion, and at other times for a square or round to cover the cannon of a casemate. See FORTIFICATION.

EPAULETTES, are shoulder knots, worn by officers; those for the officers are made of gold or silver lace, with rich fringes and bullions, those of non-commissioned are of cotton or worsted. They are badges of distinction worn on one or both shoulders. When a serjeant or corporal is publicly reduced, the shoulder-knot is cut off by the drum major in the presence of the guards of the trenches. These works were so minutely marked out by the French, all the degrees of rank, from a cadet to a general officer, were so minutely marked out by the common centinels might instantly know what officer approached his station, and could pay the prescribed honors without hesitation or mistake.

EQUIPAGE, in a military sense, is all kinds of furniture made use of by the army; such as Camp-Equipage, &c. tents, kitchen Furniture, saddle horses, baggage wagons, bat horses, &c. Equipment, the act of getting completely equipped, or supplied with every requisite for military service.

Equites, an order of equestrian knights introduced among the Romans by Romulus. Escadron, Fr. Squadron. This term is derived from the Italian scudo or scudo, corrupted from the Latin quadrum. Froissart was the first French writer that made use of the word escadron to signify a troop of horse drawn out in order of battle. The term escadron is more ancient than battalion. See Squadron.

Escalade. See SCALADE.

Escalade d'un soldat was used in the old French service to express the act of a soldier who got into a town, camp, or quarters, by scaling the ramparts, &c. When discovered in the act of so doing, the centinels had orders to fire at him; and if apprehended, he was tried and condemned to death.

Escale, Fr. a machine used to apply the petard.
ESCARMOUCHIE, Fr. See Skirmish.
ESCARP, the outward slope or talus of the rampart.
ESCARRY. See Declivity.
ESCORT, in the art of war. See Convoy.
ESCOUTS, Fr. See Convoy.
ESCOUTADE, Fr. in the old French service generally meant the third part of a company of foot or a detachment.
Companies were divided in this manner for the purpose of more conveniently keeping the tour of duty among the men. The word escouade is, however, more specifically applicable to the old distribution of a French artillery company, which was divided into three parts called escouades. The first, containing double the complement of the rest, was composed of 24 artillers or bombardiers, including two serjeants, two corporals, two anspessades or lance corporals of the same profession, and twenty-four soldiers called seldan apprises. The second escouade was composed of twelve miners or sappers, including one serjeant, one corporal, and one anspessade or lance corporal of the same profession, and twelve soldan apprises. We have corrupted the term and called it squad. See Squad.
ESCOUT, See Spy.
ESCUAGE, an ancient feudal tenure by which the tenant was bound to follow his lord to war or to defend his castle.
ESPADON, in old military books, a kind of two-handed sword, having two edges, of a great length and breadth; formerly used by the Spanish.
ESPION, Fr. a spy.
ESPLANADE, in fortification, the space between the progress of the covert-way towards the field, and is therefore the same as the glacis of the counterground; but begins to be anticipated in that sense, and is now only taken for the empty space between the glacis of a citadel, and the first houses of the town.
ESPIGON, Fr. A sort of half pike. On the 15th of May, 1696, it was ordered by the French government that every espigon, or half pike, should be 8 foot in length. The colonels of corps as well as the captains of companies always used them in action. The officers of the British army have likewise been provided with this weapon: but it has been replaced by the aspion sword in both countries; and it is generally exploded.
ESPRINGAL, in the ancient art of war, a machine for throwing large darts, generally called muchetas.
ESPRIT de Corps, Fr. this term is generally used among all military men in Europe. It may not improperly be defined a laudable spirit of ambition which produces a peculiar attachment to any particular corps, company or service. Officers without descending to mean and pitiful sensations of selfish envy, under the influence of a true Esprit de corps rise into an emulous thirst after military glory. The good are excited to peculiar feats of valor by the sentiments it engenders, and the bad are deterred from ever hazarding a disgraceful action by a secret consciousness of the duties it prescribes.
ESQUADRONE. See Squad.
ESQUIRE. See Armiger.
ESQUIVER, Fr. to subside in the train of artillery, are fixed to draught chains and made in the form of an S, one end of which is fastened to the chain, and the other hooks to the horses harness, or to a staple: they serve likewise to lengthen and piece chains together.
ESSUYER le fus, Fr. to remain exposed to the fire of cannon or musquerie.
ESTABLAGE, in a military sense, implies the quota of officers and men in an army, regiment, troop, or company.
ESTABLISHER. To fix, to settle. It is likewise a technical phrase, to express the quartering of any considerable body of troops in a country. Thus it is common to say: The army took up a position in the neighborhood of—and established its head quarters at—.
ESTABLISHMENT, in a military sense, implies the quota of officers and men in an army, regiment, troop, or company.
ESTABLISHMENT, is the reduction of corps to a certain number, by which the aggregate force of a country is diminished, and its expenditure lessened.
WAR-ESTABLISHMENT, is the augmentation of regiments to a certain number, by which the whole army of a country is considerably increased. ESTAFFE, contribution money.
ESTIMATE, army estimates are the computation of expenses to be incurred in the support of an army for a given time.
ESTOFETTE, a military courier, sent express from one part of an army to another.
ETOILE. See Etoile.
ESTRADE, Fr. a road or way. This word is derived from the Italian strada, which signifies road, street, or way. Some writers take its etymology from Estrada, a class of men on horseback, who were employed in scouring the roads, and in procuring intelligence respecting the movements of an army. See Batterie d'Estrade.
ETAIN or ETAU, Fr. Tin, a white metal of a consistency less hard than silver, but firmer than lead. It is
used in the casting of cannon. The best quality is found in Cornwall.

ETANCHEONS, Fr. Stars, supporters. Large pieces of wood which are fixed vertically in the cavities of mines, for the purpose of sustaining the weight of earth that is laid upon the galleries.

ETAPES, Fr. subsistence, or a soldier's daily allowance. See SUSTAINE

ETAPIERS, Fr. were military purveyors, who accompanied the French armies or were stationed in particular places to supply the troops on their march.

ETAT-Major, Fr. Staff. Etat major in the French service, is a more comprehensive term than staff appears to be in our acceptance of the word. As we have in some degree adopted the term, it cannot be superfluous to give a short account of its origin. Among the French, according to the Author of the Recueil Alphabetic de tous les termes propres à l'art de la guerre, état-major signifies a specific number of officers who are distinguished from others belonging to the same corps. It did not follow that every regiment was to have its staff, as the king had the power of appointing or suppressing staff officers at pleasure.

The état-major général de l'infanterie, or the general staff of the infantry, was constituted under Francis I. in 1565. That of the dragoons under Louis XIII. in 1669. That of the light cavalry under Charles IX. in 1573.

The état-major of an infantry regiment, was composed of the colonel, the major, the ad-major, quarter-master, the chaplain, the provost-marshal, the surgeon, and the attendant commissary, who was called le commissaire à la conduite. To these were added the lieutenant of the provostship, the person who kept the regimental register, or the garrison master, six archers, and the executioner. By this establishment it is presupposed, that a provostship, was allowed in the regiment, which was not a general regulation, but depended upon the king's pleasure.

The état-major, or staff of an old French regiment of cavalry, according to the Ordinance, or military regulation which was issued on the 4th of November in 1634, consisted of the mestre de camp, or colonel of the horse, the major and the ad-major. It is thence particularly stated, that the état-major of a cavalry regiment shall not have a provostship, a chaplain, a surgeon, nor any other subordinate officer under that denomination.

Every fortified town or place habitually consisting of a certain number of officers who were subject to specific and distinct regulations.

By an order dated the 1st of August, 1735, the officers belonging to the état major of a garrison town, or citadel, were strictly forbidden to absent themselves more than four days from their places of residence, without special leave from the king, nor for four days, unless they obtained permission from the governor or commandant of the town or citadel. See AMI. MI. LII. ART. STAFF.

ETENDARD, Fr. Standard. This word derives its name from the circumstance of its application, being constantly stretched out, étendu or displayed. This etymology does not appear to hold good with our translation of the word.

ETERCILLON, or archers, Fr. Butresses. A piece of wood which is placed transversely, or horizontally in the galleries of a mine, in order to sustain the earth on both sides; but most especially to keep the chamber well closed, and to support the covers of the gallery.

ETIQUETTE, a French term, primarily denoting a ticket, or a bundle of papers, expressing its contents. It is also used, when applied to the Spanish and some other courts to signify a particular account of what is to be done daily in the king's household. It likewise denotes those forms that regulate the decorum of conduct towards persons of various ranks and stations.

In the Austrian service, military etiquette is punctually attended to; and in the old French service it is so precise, that no officer but a superior officer by an inferior, at all times, and on all occasions.

ETOILES, Fr. small redoubts, which are constructed by means of angles reentrant and angles sortie, and have from five to eight salient points. Each one of their sides or faces may contain from 12 to 25 toises. This species of fortification has fallen into disuse, not only because stones do not possess the advantage of having their angle reentrant effectually flanked, but because they have been succeeded by square redoubts, which are sooner built, and are applicable to the same purposes of defence.

ETOUPIE, Fr. an inflammable match, composed of three threads of very fine cotton, which is well steeped in brandy mixed with the best priming gunpowder.

EVACUATE, in military history, a term made use of in the articles of capitulation granted to the besieged at the time they surrender to the besiegers; and is the same as quitting a place.

EVENT, Fr. Vent. This word is particularly applicable to the vent or cavity which is left in cannon, or other fire arms, after they have been proved and found defective. The vent is sometimes round and sometimes long. Vents are frequently so exquisits, that they appear like the lines of a small fibre, through which water will ooze, and smoke evacuate. These pieces, whether of ordnance, or of musquetey, are of course rejected.
Evidence, a declaration made in virtue of what any person knows of his own knowledge relative to the matter in question. Military men are obliged to attend and give evidence before courts-martial, without any expense to the prosecutor, or prisoner.

Hearsay Evidence, the declaration of what one has heard from others. As in all other courts of ordinary judicature, this species of evidence is not admissible in courts-martial.

Evocati, were a class of soldiers among the Romans, who, after having served their full time in the army, entered as volunteers to accompany some favorite general. Hence they were likewise called emeriti and beneficiares.

Evocation. A religious ceremony which was always observed among the Romans, at the commencement of a siege, wherein they solemnly called upon the gods and goddesses of the place to forsake it, and come over to them. When any place surrendered, they always took it for granted, that their prayer had been heard, and that the Divi Penates, or the household gods of the place, had come over to them.

Evolution, in the art of war, the motion made by a body of troops, when they are obliged to change their form and disposition, in order to preserve a post, occupy another, to attack an enemy with more advantage, or to be in a condition of defending themselves the better. That evolution is best, which, with a given number of men, may be executed in the least space, and consequently in the least time possible.

Evolution of the moderns, is a change of position, which has always for its object either offense or defense. The essences in the performance of an evolution are, order, directness, precision, and the greatest possible rapidity.

Evolutions may be divided into two classes, the simple and the compound; simple evolutions are those which consist in simple movements, which do not alter the shape or figure of the battalion, but merely afford a more or less extended front or depth, keep it more or less closed to its flanks or centre, turn its aspect to flank or rear, or break it into divisions, subdivisions, sections, or files, in order that it may unfold itself, or delite and resume its proper front or order of battle. All the various ways of thickness, forming line, opening to right and left, closing or deploying, doubling the ranks or files, or changing front upon either of the flanks by conversion, are called simple evolution.

Compound evolutions are those which change the shape and figure of battalions, break them into divisions or companies, separate the companies from the main body, and again replace or reunite them, in a word which afford the means of presenting a front at every direction. Compound evolutions are practised either by repeating the same simple evolution several times, or by going through several simple evolutions, or moving in different modes with different parts of the same corps, which ultimately tend to the same object.

The Evolutions of the ancients were formed and executed with uncommon good sense and ability. Considering the depth and size of the Grecian phalanx, it is astonishing how the different parts could be rendered susceptible of the most intricate and varied evolutions. The Roman legion, though more favorable to such changes and convolutions, from being more loose and detached, did not execute them upon more sound or better principles.

Evolution (in geometry) the equal evolution of the periphery of a circle, or any other curve, is such a gradual approach of the circumference to rectitude, as that all its parts do meet together, and equally evolve or unbend; so that the same line becomes successively a less arc of a reciprocally greater circle, till at last they turn into a straight line.

Evolution of powers (in algebra) extracting of roots from any given power, being the reverse of involution.

Examiner. One who scrutinizes, Examines, the act of cutting or otherwise making hollows; also the cavity formed. In military matters, it is generally applied to the place from whence the earth or other substance has been taken by mining.

Example, any act or word which disposes to imitation. The example of a superior officer has considerable influence over the mind of an inferior; but in no instance does it appear more important than in the good and bad behaviour of a non-commissioned officer or corporal. These characters, therefore, should be particularly correct in their duties, conscious of every principle of military honor, and remarkable for honesty. Old soldiers should likewise direct their attention to the strict observance of rules and regulations, as young recruits always look up to them for example.

Examination, a scrutiny or investigation of abilities, conduct, &c. All officers of artillery and engineers should undergo an examination in mathematics, fortification, and gunnery, prior to their having commissions. Surgeons and assistant surgeons should be examined before a medical board.

Exauctoratio, in the Roman military discipline, differed from the misio, which was a full discharge, and took place after soldiers had served in the army 20 years; whereas the exauctoratio was only a partial discharge: they lost their pay indeed, but still kept under their colors or vexilla, though not under the aquila or eagle, which was the standard
of the legion; whence instead of legionario, they were called subdignani, and were retained till they had either served their full time, or had lands assigned them. The exs_actorio took place after they had served 17 years.

EXCELLENCY, a title absurdly given to kings and emperors, in Europe, and with equal falsehood and absurdity given to governors, ambassadors, generals, and other persons.

EXCHANGE, in a military sense, implies the removal of an officer from one regiment to another, or from full to half pay, and vice versa: It is usual on these occasions for individuals belonging to the latter class to receive a pecuniary consideration. See DIFFERENCE.

EXCHANGER, the act of giving up men, that have been taken in war, upon stipulated conditions which are subscribed to by contending powers.

EXCHARGE, in a general sense, signifies any contract or agreement whereby persons or things are exchanged for others.

EXCHEQUER. The public office from whence all monies are issued for the use of the English army. With respect to the militia, it is enacted that the money paid for that particular service, shall be kept apart from all other money.

Officers belonging to the exchequer, are not to take any fees for receiving, or issuing such money.

EXCITE. See ANIMATE. EXCUBIUM, in antiquity, the watches and guards kept in the day by the Roman soldiers. They differed from the vigiles which were kept in the night.

EXECUTER, Fr. The French use this verb technically. They say, executer et servir une pice. See the particular method of so doing, under TIRER DE CANON, to fire a gun or cannon.

EXECUTER, Fr. To execute, to put to death.

EXECUTION. Military Execution is the pillaging or plundering of a country by the enemy's army.

Military Execution also means every kind of punishment inflicted on the army by the sentence of a court martial; which is of various kinds. When a soldier is to be punished with death, a detachment of about 200 men from the regiment he belongs to form the parade, when a file of grenadiers shoots the prisoner to death.

Every nation has different modes of military execution.

EXEMPT, men of 45 years of age are exempt from serving in the militia. An aid-de-camp and brigade major are exempt from all regiments duties while serving in these capacities. Officers on courts martial are sometimes exempt from all other duties until the court is dissolved. The people called Quakers, and all others who are religiously scrupulous, are by the laws of the U. States exempt from militia duty; an indulgence which they have hitherto repaired with extreme ingratitude.

EXEMPT, the privilege to be free from some service or annoyance. Thus officers in the British militia who have served during the war, according to prescribed regulations, are exempted from being balloted for.

EXEMTS, Fr. So called originally, from being exempted from certain services, or entitled to peculiar privileges.

EXEMTS du ban et arriere ban, persons exempted from being enrolled for that particular service, were so called. They consisted of the domestic attendants belonging to the palace, those attached to the princes and princesses of the blood; all persons actually serving his majesty, together with the sons of officers who were in the army.

EXEMTS des gardes du corps. Exempts belonging to the body guards. They were twelve in number, and held the rank of captains of cavalry, taking precedence of all captains whose commissions were of a younger date to the brevet of the exempts.

These brevet commissions were given away under the old government of France.

EXEMTS des marcbauautes. Certain persons employed to keep the public peace. Marchbausates means, in a literal sense, marshalsey. But the functions of the exempts were of a nature peculiar to France. They held their situations under commissions, bearing the great seal, which were forwarded to them by the secretary at war. The privileges they enjoyed were to be exempted from all taxes, &c., but they could not institute any species of criminal information without the concurrence of the groffer or sheriff.

EXERCISE, in military affairs, is the practice of all those motions and actions, together with the whole management of arms, which a soldier is to be perfect in, to render him fit for service, and make him understand how to attack and defend. Exercise is the first part of the military art; and the more it is considered the more essential it will appear. It disengages the human frame from the stiff rusticity of simple nature, and forms men and horses to all the evolutions of war. The honor, merit, appearance, strength, and success of a corps depend wholly upon the attention which has been paid to the drill and exercise of it, according to prescribed rules and regulations; while on the other hand we see the greatest armies, for want of being exercised, instantly disordered, and that disorder increasing in spite of command, the confusion oversteeps the art of skilful masters, and the valor of the men only serves to precipitate the defeat: for which reason it is the duty of every officer to take care, that the recruits be drilled as soon as they join the corps.

The greatest advantage derived from the exercise, is the expertise with which
men become capable of loading and firing, and their learning an attention to act in conformity with those around them. It has always been lamented, that men have been brought on service, without being informed of the uses of the different manoeuvres they have been practising; and that having no ideas of any thing but the uniformity of the parade, they instantly fall into disorder and confusion when they lose the step, or see a deviation from the straight lines they have been accustomed to at exercise. It is a pity to see so much attention confined to show, and so little given to instruct the troops in what may be of use to them on service.

Though the parade is the place to form the characters of soldiers, and to teach them uniformity, yet when confined to that alone, it is too limited and mechanical for true military use.

The great loss which the British troops sustained in Germany, America, and the West Indies, during the last of 1781, from sickness, as well as from the enemy, was chiefly owing to a neglect of exercise. An army whose numbers diminish after the first 4 months of a campaign, may be very ready to give battle in their existing period; but the fact is, that although fighting is one part of a soldier’s business, yet bearing fatigue, and being in health, is another, and at least as essential as the first. A campaign may pass without a battle; but no part of a campaign can be considered as valor, that we are not to expect viz. that alone, it is too limited and mechanical for true military use.

It is not from numbers, nor from inability to perform given kinds of service, that the Romans made use of any new means to conquer the world, than a continual practice of military exercises, an exact discipline in their camps, and a constant attention to cultivate the art of war. Hence, both ancients and moderns agree, that there is no other way to form good soldiers but by exercise and discipline; and it is by a continual practice and attention to this, that the Prussians arrived at that point of perfection which has been so much admired in their evolutions, and manual exercise.

Formerly in the British service every commander in chief or officer commanding a corps, adopted or invented such manoeuvres as he judged proper, excepting in the instance of a few regulations for review; neither the manual exercise, nor quick and slow marching were precisely defined by authority. In consequence when regiments from different parts were brigaded, they were unable to act in line till the general officer commanding had established some temporary system to be observed by all under his command.

During the American revolution, a committee of officers was appointed by congress to digest a system of discipline for the military forces of the United States. A considerable body of materials were thrown together by the several officers, which proving too voluminous, amounted to three volumes folio, Baron Steuben, an officer who had been in the Prussian service, was appointed to make a digest of the parade form, which was afterwards adopted, and continues still to be the only regulation for discipline. This work which is very brief, was of much use where there was no sort of order established, or rather where utter disorder prevailed; but is actually any means adapted to the uses of a good discipline in the present state of military knowledge. It is confined to the duties of a regiment of infantry only, and is in fact no more than an abstract modification of the Prussian system of 1741.

The war department of the United States, has had the provision of a more enlarged and competent system under preparation for three or four years, and the commander in chief (general Wilkinson) had made great progress in a general arrangement of a system comprehending all the details of drill, exercise, manœuvre, formations of separate, and co-operating bodies, and of various kinds of troops; as well as the police of camps, garrisons, rank, and rotation; and other regulations, but public service having called him off to the southern frontier, and general Dearborne having resigned, the system of Steuben remains, while the new discipline of Europe has become known to all the volunteer corps of the Union, commanded by intelligent officers; and the old discipline of Steuben, has from actual deficiency been superseded.

Infantry Exercise includes the use of the firelock and practice of the manœuvres for regiments of foot, according to the regulations issued by authority. When a regiment of foot is drawn up, or paraded for exercise, the men are placed two and sometimes three deep, which latter is the natural formation of a battalion. In order to have the manual exercise well performed, it is in a particular manner requisite, that the ranks and files be even, well dressed, and the file leaders well covered; this must be very strictly attended to both by the major, and his adjutant; all officers also, in service in general, where men are drawn up under arms, or without, must be careful, that the ranks and files are exactly even, and the soldiers must learn to dress themselves at once, without the necessity of being directed to do it. The
Beauty of all exercise and marching, consists in seeing a soldier carry his arms well, keep his foot steady and even in the hollow of his shoulder, the right hand hanging down, and the whole body without constraint. The musquets when shouldered, should be exactly dressed in rank and file; the men must keep their bodies upright, and in full front, not having one shoulder too forward, or the other too backward. The distances between the files must be equal, and not greater than from arm to arm, which gives the requisite room for the motions. The ranks are to be two paces distant from each other. Every motion must be done with life, and all facing, wheelings, and marchings, performed with the greatest exactness. Hence a regiment should never be under arms longer than three hours without rest. See FIRQINGS, MANUAL AND MANOEUVRES.

Cavalry Exercise, is of two sorts, on horsecback, and on foot. The squadrions for exercise are sometimes drawn up three deep, though frequently two deep; the tallest men and horses in the centre and front. When a regiment is formed in squadrions, the distance of 24 feet, as a common interval, is always to be left between the ranks; and the files must keep boot top to boot top. The officers commanding squadrions must, above all things, be careful to form with great celerity, and, during the whole time of exercise, to preserve their several distances. In all wheelings, the flank which wheels, must come about in full gallop. The men must keep a steady seat upon their horses, and have their stirrups at a fit length.

Cavalry Sword Exercise. See Sword Exercise.

Artillery Exercise, is the method of teaching the corps of artillery the use and practice of all the various machines of war, viz. Exercise of the light field pieces, teaches the men to load, ram, and sponge; how to elevate the gun, and to adjust the quar- t and screw; to judge of distances and elevations without the quadrant; how to use the port hole, match, and tubes for quick firing; how to fix the carriage and prolongs, and use them in advancing, retracing, and wheeling with the field pieces; how to fix and unfix the trail of the carriage on the limbers, and how to fix and unfix the boxes for grape shot on the carriages of each piece. Exercise of the parison and battering artillery, is to teach the men how to load, ram, and sponge; how to handle the handspikes in elevating and depressing the metal to given distances, and for ricochet; how to adjust the coins, and work the gun to its proper place; and how to point and fire with exactness, &c. Mortar Exercise, is of two different sorts, viz. with powder and shells unloaded, and with powder and shells loaded; each of which is to teach the men their duty, and to make them handy in using the implements for loading, powdering, traversing, and firing, &c. See Practice.

Howitz Exercise, differs but little from the mortars, except that it is liable to various elevations; whereas that of the mortars is usually fixed to an angle of 45°; but the men should be taught the method of ricochet firing, and how to practice with grape shot; each method requiring a particular degree of elevation. See Practice.

Exercise of guns with reduced numbers. When 15 men are attached to the service of a gun in the field, they may be clasped to the right and left sides of the gun; or they may be placed in a kind of circle, by a succession of numbers from 1 to 15; the two first numbers of each gun being the first and second gunner's aid, and the remaining 13 as aids. This numerical distribution, upon a little practice, will be found as easy as the regulation of the guard duties, and is well calculated for service where discipline is good. It is by this arrangement also well suited to service where there are not men well disciplined, as these can be placed on the remoter numbers. So it is also well calculated for horse artillery, where it will require some men to take care of the horses; and it is also well adapted to service where men are lost by the casualties of war.

Supposing, therefore, that a 12 pound gun with 15 men, is required to exercise with 9 men. The six numbers, beginning with the 4th aid of the left, or Nos. 10, 11, 12, 13, 14, 15, that is, the fourth of the left, fifth and sixth aids of the right and left, in the practice; they are either employed on other service, or engaged in cleaning the horns, or in preserving and securing the caisson. The first gunner has precedence of the names and stations of each man at the gun. They are posted as follows: and the numbers which precede their stations are the numbers of their rosters, and they should be prepared to answer by their numbers, whenever called for.

No. 1. First gunner on the right.
2. Second gunner on the right.
3. First aid on the right.
4. First aid on the left.
5. Second aid on the right.
7. Third aid on the right.
8. Third aid on the left.
10. Fourth aid on the left.
11. Fifth aid on the right.
12. Fifth aid on the left.
13. Sixth aid on the right.
14. Sixth aid on the left.
15. Thirteenth aid.

A reference to the number prefixed to these stations, simplifies the return, and points out the duty of each, which may be done by either telling them off in ranks, or referring to the numbers.
ing, or giving them a ballot with their
number on it, or any other arbitrary
sign that may be devised. It is proposed
then to put the artillerists to a gun on the
right side of the guns: A twelve
pounder is attached with 15 men, and
they are numbered, it is required to
know the stations of the artillerists accordant,
in their number, and according to
the positions of the men to the same duties.
First rule, all the odd numbers are on
the right side of the guns; all the even
numbers on the left side. This is their
position in battery, and prepared for ac-
tion. The next rule is their positions in
advancing.

Line of March. Nos. 2, 4, 6, and 8, are
on the left, which numbers correspond
with the second gunners, the first, second,
and third aid of the left; so on the right
of the gun, are the Nos. 1, 3, 5, 7, and 9,
answering to the first gunner of the right,
and the first, second, third, and fourth
aid of the right, making in all nine. The
other six aids, that is to say, the fourth
aid of the left, the fifth aide of right and
left, the sixth aide of right and left, and
the thirteenth aide, are thus dispensed
with, and may be thus dispensed with,
unless the men are required with their
bricokes to maneuver the gun; if this is
done with horses, their aid is only required
with the horses, and it exemplifies the
excellent adaptation of the means of this
new discipline to its proposed end.
The third rule is, to find the men, and
their stations by their numbers, it is only
requisite to refer to the preceding table of
numbers; 1 and 2 are stationed opposite
the trail, they are the two gunners; 3
and 4 are opposite the muzzle in the march,
they load and ram the cartridge and shot;
5 and 6 are opposite the breech; they
have charge of the port fire and priming;
7 and 8 march opposite the axletree of the
limber; they are the third aids of right
and left, and have to supply ammunition,
and move the tumbril on unlimbering;
they are purveyors of the gun; 9 leads the
limber horse, and takes charge of the
limber when the gun is in battery.

Duties of Nine Men as numbered in battery.

Light Artillery duties.
1 Commands the gun.
2 Stops the vent, and elevates the gun.
3 Loads and squences.
4 Loads with cartridge and shot.
5 Fires the gun.
6 Clears the vent and priming.
7 Supplies cartridge.
8 Takes charge of the tumbril or caisson.

Positions.
1 At the right handspike.
2 At the left handspike.
3 Outside of the right wheel, in front.
4 Outside of the left wheel, in front.
5 Between 3 and 4, and dressing with
the rear of the wheels.

Heavy guns.—The number of men, will
be equally applicable to all kinds of field
ordnance.

The following method of distributing the
duties amongst a smaller number of men,
will be equally applicable to all kinds of field
ordnance.

To limber up, Light Guns and Howitzers.
The whole of the men face towards the
gun; 1 unships the traverse handspikes;
the limber is brought up by 9, rather to the
sight of the gun, and then turned to the
left about; 7 and 8 raise the trail, and
place it on the limber, in which they
**Heavy Field Guns, or Howitzers.**—The only difference from the above is, that 3 and 4 assist 7 and 8 to raise the trail, and 9 at the wheels; 1 stands to the breast of the carriage, and lay them over the spokes of the wheels; the driver brings up a horse to the front, by the right; 3 and 4 unhook the horses' traces from the back band, and hook them to the gun, and then take post outside the wheels; 3 takes his spunges; 7 and 8 look the traces to the single-trees.

**Prepare for action.**—The different numbers exactly undo what they had just done; 1 and 9 beginning to lose the prolonge as soon as the gun is brought up or about to be limbered.

**Prepare to advance with a limber.**

The only difference between this and advancing with a horse, is, that the limber is brought up to the front; and 9 or 15 brings up the prolonge, and turns a turn on the lashing rings of the trail; or if the gun is to be limbered, it is laid or as in the drill.

**Exe Excise with heavy ordnance in a battery.**

<table>
<thead>
<tr>
<th>52, or 42 Pounder</th>
<th>10 Men.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 spunges; 4 loads.</td>
<td>7 and 8 run the gun up.</td>
</tr>
<tr>
<td>7 and 2 run up and elevate.</td>
<td>6 serves the vent, traverses, primes, and runs up.</td>
</tr>
<tr>
<td>5 runs up, traverses, and fires.</td>
<td>8 brings cartridges.</td>
</tr>
<tr>
<td>6 brings cartridges.</td>
<td>7 points and commands.</td>
</tr>
<tr>
<td>9 Men.</td>
<td>3 spunges; 4 loads.</td>
</tr>
<tr>
<td>7 and 8 run up.</td>
<td>7 and 8 run up and elevate.</td>
</tr>
<tr>
<td>6 serves the vent, runs up, and primes.</td>
<td>3 runs up, traverses, and fires.</td>
</tr>
<tr>
<td>2 traverses and elevates.</td>
<td>8 Men.</td>
</tr>
<tr>
<td>8 Men.</td>
<td>3 spunges; 4 loads and runs up.</td>
</tr>
<tr>
<td>8 runs up.</td>
<td>8 runs up.</td>
</tr>
<tr>
<td>5 and 6 run up and elevate.</td>
<td>7 brings cartridges, runs up, and traverses.</td>
</tr>
<tr>
<td>7 and 6 runs up and elevate.</td>
<td>2 serves the vent, runs up, traverses, and primes.</td>
</tr>
<tr>
<td>8 Men.</td>
<td>1 points and commands.</td>
</tr>
<tr>
<td>7 Men.</td>
<td>3 spungs and runs up.</td>
</tr>
<tr>
<td>4 loads and runs up.</td>
<td>4 loads and runs up.</td>
</tr>
<tr>
<td>7 runs up and elevates.</td>
<td>6 brings cartridges, runs up, and elevate.</td>
</tr>
<tr>
<td>2 serves the vent, runs up, traverses, and primes.</td>
<td>5 runs up, traverses, and fires.</td>
</tr>
<tr>
<td>1 points and commands.</td>
<td>5 Men.</td>
</tr>
<tr>
<td>5 Men.</td>
<td>3 spungs and runs up.</td>
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<tr>
<td>4 loads, runs up, and elevates.</td>
<td>4 loads, runs up, and elevates.</td>
</tr>
<tr>
<td>6</td>
<td>runs up and elevates.</td>
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<tr>
<td>5</td>
<td>brings cartridges. runs up, and traverses.</td>
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<tr>
<td>4</td>
<td>serves the vent. runs up, traverses, and primes.</td>
</tr>
<tr>
<td>3</td>
<td>runs up, points, fires, and commands.</td>
</tr>
<tr>
<td>2</td>
<td>serves the vent, runs up, traverses, and primes.</td>
</tr>
<tr>
<td>1</td>
<td>serves vent, runs up, elevates, and traverses.</td>
</tr>
</tbody>
</table>

3 and 4 load and run up.

2 and 3 prime, fire, and run up.

1 elevates, points, and commands.

**24 Pounder, &c.**

| 3   | spunges; 4 loads. |
| 2   | runs up and elevates. |
| 1   | serves the vent, runs up, traverses, and primes. |
| 0   | brings cartridges. |
| 9   | runs up, traverses, and fires. |
| 8   | serves vent, traverses, and primes. |
| 7   | points and commands. |
| 6   | spunges; 4 loads. |
| 5   | runs up and elevates. |
| 4   | serves vent, traverses, and primes. |
| 3   | runs up, traverses, and fires. |
| 2   | points and commands. |
| 1   | spunges; 4 loads. |
| 0   | runs up and elevates. |
| 9   | serves the vent, runs up, traverses, and primes. |
| 8   | brings cartridges. |
| 7   | spunges; 4 loads. |
| 6   | runs up and elevates. |
| 5   | serves vent, traverses, and primes. |
| 4   | runs up, traverses, and fires. |
| 3   | points and commands. |
| 2   | spunges; 4 loads. |
| 1   | runs up and elevates. |
| 0   | serves the vent, runs up, traverses, and primes. |
| 9   | brings cartridges. |
| 8   | spunges; 4 loads. |
| 7   | runs up and elevates. |
| 6   | serves vent, traverses, and primes. |
| 5   | runs up, traverses, and fires. |
| 4   | points and commands. |
| 3   | spunges; 4 loads. |
| 2   | runs up and elevates. |
| 1   | serves vent, traverses, and primes. |
| 0   | runs up, traverses, and fires. |

**8 Inch Mortar, or Howitzer.**

| 5   | Men. |
| 4   | spunges; runs up, dreges. |
| 3   | runs up, brings cartridges, and puts them in. |
| 2   | runs up, brings cartridges, and puts them in. |
| 1   | runs up, brings cartridges, and puts them in. |
| 0   | runs up, brings shells, puts them in, elevates, primes. |
| 9   | runs up, traverses, fires. |
| 8   | serves vent, points, and commands. |
| 7   | runs up, traverses, fires. |
| 6   | serves vent, traverses, and primes. |
| 5   | runs up, traverses, and fires. |
| 4   | points and commands. |
| 3   | spunges; runs up, dreges. |
| 2   | runs up, brings cartridges, and puts them in. |
| 1   | runs up, brings cartridges, and puts them in. |
| 0   | runs up, brings shells, puts them in, elevates, primes. |
| 9   | runs up, traverses, fires. |
| 8   | serves vent, points, and commands. |
| 7   | runs up, traverses, fires. |
| 6   | serves vent, traverses, and primes. |
| 5   | runs up, traverses, and fires. |
| 4   | points and commands. |

**10, or 13 Inch Mortar.**

| 10 | Men. |
| 9  | spunges; runs up, puts in shells, and dreges, and traverses. |
| 8  | runs up, brings cartridges, and puts them in, puts in the shells. |
| 7  | runs up, brings shells, and traverses. |
| 6  | serves vent, traverses, and primes. |
| 5  | runs up, points, elevates, and commands. |
| 4  | spunges; runs up, dreges. |
| 3  | runs up, brings cartridges, and puts them in. |
| 2  | runs up, brings cartridges, and puts them in. |
| 1  | runs up, brings shells, puts them in, runs up, traverses, and fires. |
| 0  | runs up, points, elevates, and commands. |

**Of the exercise of auxiliary machines.**

**Exercise of the Gin.**

The compement of men for a gin is usually 1 commissioned officer and 10 men; they are numbered from 1 to 10, the non-commmissioned officer being 11.

1 and 2 carry a pry-pole, 3 and 5 the right check, 4 and 6 the left, 7 the windlass and side, 8 and 9 the blocks and tackles, 10 the handspikes, &c.

**To set up a Gin.**

1 and 2 put a common handspoke through the ring, near the foot of the pry-pole, at which they lift; 3 and 4 steady the checks, by placing each a handspoke against the lower cross bar; 5, 7, and 9, lift the right check; 6, 8, and 10, the left check; 11 gives directions. The tackles must be hooked on before the gin is raised.

1 and 3 man the right handspike of the gin: 2 and 4 the left; 5, 6, 7, and 8, hold on the fall, and pull in the slack; 9 and 10 steady the gin, 9 at the muzzle, 10
at the breech. The tackle hook must be fixed directly over the dolphins, if any, or a little behind the trunnions.

In bearing, when the ends of 1 and 4's handspikes come as low as their knees, 2 and 3 put theirs into the upper holes of the windlass, and 3 gives the word Bear, upon which 1 and 4 clear their handspikes from the windlass, and 1 gives the word Bear; 2 and 3 then bear down their handspikes, and remain fast till 1 and 4 having taken their fresh purchase, 1 gives the word Bear, when 2 and 3 clear their handspikes, and 3 gives the word lower the gun. Eases the fall off from the end, and 3, 4, 5, 6, 7, and 8, move the carriage, as required, under the gun.

Exercises of the Sling Cart.

The men for the service of the sling cart are numbered from 1 to 7; the non-commissioned officers being No. (1); Nos. 2 and 3 sling the gun. The gun must be laid with one trunnion touching the ground, and the sling passes diagonally round the gun, being before one trunnion, and behind the other; and that end of the sling which goes round the lower side of the gun, must be the end to be act on by the windlass; as by that means the trunnions become horizontal when the gun is raised; Nos. 4, 5, 6, and 7, man the right lever; 5, 7, and 8, the left lever; and upon the word from the non-commissioned officer, then directs, left hand lever hold on, right lever bear; the right lever takes a fresh purchase; then, right lever hold on, left lever bear; the left lever takes a fresh purchase; they then heave together again. When the gun is high enough, (1) pulls the pull; 2 and 3 take out the levers, and put in the pry-pole; 2 and 5 raise the breech of the gun with two common handspikes, and 6 and 7 lash it to the pry-pole; 2 and 3 then lay their levers along side the pry-pole, and 4 and 5 their handspikes on the top of them which 6 and 7 lash all fast together.

Exercises, are also understood of what young gentlemen or cadets learn in the military academies and riding schools; such as fencing, dancing, riding, the manual exercise, &c.

Exhibition. See Activate.

Expedition, in a general sense, signifies haste, speed, rapidity. In a military sense, it is chiefly used to denote a voyage or march against an enemy, the success of which depends on rapid and unexpected movements. It is out of the nature of the thing itself to lay down fixed rules for the minute conduct of small expeditions; their first principles only can be with certainty fixed, and much will often disagree about preparations, and differ in their conduct, though they acknowledge the same principles.

One of the principles of many small expeditions, is surprise; and 6 battalions, without much accompaniment, may sometimes do their parts of it, and a great fleet, would not succeed in.

There is no part of war so interesting to an insular soldier as an expedition; nor can there be any part more worthy of attention.

Expeditions have hitherto had no rules laid down for their conduct; and that part of war had never been reduced to a system. The slow rules of a great war will not do in expeditions; the blow must be struck with surprise, and imputation be produced in the invader, before succors can arrive. Denote is out of season, and all slow proceedings are ruin. Not to advance, is to recede; and not to be on the road to conquest, is to be already conquered. There must be that glance, which sees certainty, enough, though instantly; that rapidity which executes on the surest rules, when it seems least to act on any. The French have given all their campaigns the characters of expeditions.

In all small expeditions, such as expeditions of surprise, or surprise de-main, the favorable side of the proposed action must ever be viewed; for if what may happen, what may arise, what may fail out, is chiefly thought upon, it will, at the very best, greatly discourage, but in general end in a total failure. Hence the very name of an expedition implies risk, hazard, precarious warfare, and a critical operation.

An expedition is governed by five principal maxims.

1st. A secrecy, if possible, of preparation, and a concealment of design, &c.

2nd. That the means bear proportion to the end. In this there will ever be a difference in opinion.

3rd. A knowledge of the state and situation of the country, where the scene of action is, or the place or object that is to be attacked.

4th. A commander who has the particular turn of mind, which is most adapted to such particular sort of warfare.

Lastly, the plan of an expedition, great or small, is ever to be arranged as much as possible before setting out, and then any appearances that may vary a little from what might have been expected, will not perplex.

Expedition, fr. See expedition.

The French likewise use this word, to express any particular military quality, which an officer or soldier may possess. As cet officier est un homme d'expedition; this officer is a man of enterprise, is courageous and daring.

Exploit. See Achievement.

To EXPLODE, burst or blow up.

EXPLOSION, the discharge of a gun,
the blowing up of a mine, or the bursting of a shell.

**EXPRESSION.** A messenger sent with direct and specific instructions.

**EXPRESS.** To send by express, to send anything by extraordinary conveyance.

**EXPUGNATION.** The taking any place by assault.

**EXPERIMENT.** In a military sense, the trials, or applications of any kind of military machines, in order to ascertain their practical qualities and uses.

**EXTEND.** When the files of a line, or the divisions of a column are to occupy a greater space of ground, they are said to extend their front or line. Extended order is applicable to the light infantry.

**EXTORTION.** The act of obtaining money or property by violence or unjust means: taking advantage of the ignorance or peculiar circumstances of a purchaser, to demand more than a fair price for an article. All sutlers, or camp followers, who are guilty of extortion in the sale of necessaries, are punishable by a general warrant, or as extrajudicially.

**EXTRAORDINARY.** Something out of the common course. Extraordinary couriers, persons sent with some information or order of great importance.

**EXTRAORDINARY guards.** Guards, sent while the common routine of duty. They are frequently given as a punishment for military offences.

**EYES.** Given, an old word of command given when the battery was advancing in line, denoting, that the men were to look to the centre in which the colors are placed, and dress by them.

**EYES.** Given, 3 words of command denoting the flank to which the soldier is to dress. In casting his eyes to either flank care must be taken that the shoulders are kept square to the front.

**EYES.** Front, a word of command given after the dressing in line is completed, on which the soldier is to look directly forward, which is the habitual position of the soldier. These motions are only useful on the wheeling of divisions, or when dressing is ordered after a halt, and particular attention must be paid in the several turnings of the eyes, to prevent the soldier from moving his body, which must invariably be preserved perfectly square to the front. In the American practice the direction of the eyes is understood to follow the word dress as right, center, or left dress.

**EYEBOLTS.** See BOLTS.

**FACE.**

**FACADE.** In military fortification. See FACE.

**FACE.** In fortification, is an appellation given to several parts of a fortress, as the

**FACE of a bastion, the two sides, reaching from the flanks to the salient angle.**

**FACE.** To the left, FACE. 3 motions. — 1st, Place the right heel against the hollow of the left foot; 2d, Raise the toes, and turn (half of a circle) to the right about on both heels; 3d, Bring the right foot smartly back in a line with the left.

**FACE.** To the left, FACE. 2 motions. — 1st, Place the right heel against the hollow of the left foot; 2d, Turn (a quarter of the circle) to the left on both heels.

**FACE.** To the left about, FACE. 3 motions. — 1st, Place the right heel against the ball of the left foot; 2d, Raise the toes, and
Quarter F a c e to the right or left, is now substituted for the old and awkward mode of oblique marching, the quarter facing being referred to the position of action being all on the face of a semicircle; half of which is facing to the right or left; that is, the side of the soldier is thrown to the previous front; in quarter facing the side is thrown diagonally between the front and flanks; marching quarter face is called marching by the line of science.

Great precision must be observed in these facings; otherwise the dressing will be lost in every movement.

F a c e s of a square. The different sides of a battalion, &c. when formed into a square are all denominated faces, viz. the front face, the right face, the left face, and the rear face.

F a c e ou pan de bataille, Fr. See Face of a battalion.

F a c h , d'un plat, Fr. See T en a il le.

F a c i n g s, are the different movements of a battalion, or of any other body of men, to the right, to the left, or right and left about. All facings must be executed with a straight knee; and the body must be kept firm, and turn steadily, without drooping forward or jerking. The plant of the foot, after facing about, must be sharp.

Facings, likewise signify the tippets, cuffs, and collar of a military uniform, and are generally different from the color of the coat or jacket.

F a c t i o n, Fr. the duty done by a private soldier when he parades, goes the rounds, &c. but most especially when he stands centry. The French usually say, entrer en faction, to come upon duty; être en faction, to be upon duty; sortir de faction, to come off duty.

F a c t i o n n a i r e, Fr. Soldat factionnaire, a soldier that does every species of detail duty.

The term factionnaire, was likewise applicable to the duty done by officers in the old French service. Premier factionnaire du régiment implied, that the officer, so called, was the fourth captain of a battalion; as the colonel, lieutenant colonel, major, and the captain of grenadiers did not mount the ordinary guards.

F a g o t s, in the military history were men hired to muster by officers whose companies are not complete; by which means they cheated the public of the men's pay, and deprive the country of its regular establishment. See False return.

A British general in the East Indies made an immense fortune by bullock f a g o t s. Artillery are all drawn by oxen in Asia, as well as all baggage; upon an inspection of bullocks, the inspector counted 12,000; it appeared there were only 4,000; they were drawn up in front of a wood, and as soon as the bullocks on the right were inspected, they were drawn off successively by the rear, and appeared again in ranks on the left; so that every bullock was three times inspected, and the round number returned.

F a g o t s, See Facasini.

F a i l e r, See D e s s e r t e r.

F a i l u r e, an unsuccessful attempt, as the failure of an expedition.

F a i r e face feu, Fr. to miss fire; to flash in the pan.

F a l a i s e , Fr. Any part of the sea-coast is so called by the French, when it is extremely steep, and broken into precipices.

F a l a i s e r, Fr. to break upon.

F a l c h i o n, a short crooked sword.

F a l c o n, or F a l c o n e t, an ancient name given to a 3-pounder. See C a n n o n.

F a l c o n e t, an ancient name given to a 13-pounder. See C a n n o n.

F a l l. The fall of a place after it has been besieged. See S u r r e n d e r.

To F a l l back, to recede from any situation in which you are placed. This phrase is frequently, indeed, always made use of in the drill, or exercise of soldiers; particularly during the formation of a line, when individuals, or whole divisions are apt to overstep their ground and get beyond the dressing point.

To F a l l in, a word of command for men to form in ranks, as in parade, line, or division &c.

To F a l l in likewise means the minute arrangement of a battalion, company, guard or squad, by which every man is ordered to take his proper post. The long roll, a peculiar beat of the drum, is the usual signal for soldiers to assemble and fall in.

To F a l l into, to become the property of another, as, we fell in with a large convoy of the enemy, which after a short resistance made by the escort, fell into our hands.

To F a l l in with, a military technical phrase, signified any sudden or unexpected meeting of any enemy. As our light cavalry patroles fell in with a party of foragers belonging to the enemy's army.

To F a l l off, to desert; to fall; to relax in exertion.

To F a l l out, to quit the rank or file in which you were first posted. Dirty soldiers on a parade are frequently ordered to fall out, and remain in the rear of their companies. The phrase is applicable in a variety of other instances.

According to the celebrated General Monk it is very fit, that a general should often command his horse and dragoon to fall upon his enemy's outmost horse
A false report in military matters, may be truly said to be the ground work of a false return and a false muster, and consequently the primary cause of imposition upon the public. The strictest attention should, therefore, be paid to the most trifling report which is made in a troop or company respecting the presence or absence of men or horses, the state of clothing, accouterments, or necessaries. This can only be done by the commanding officer of such troop or company having constantly the general good of the service at heart in preference to his own convenience, or to that of others. Every sergeant or corporal of a squad should be severely punished when detected in making a false report.

A false report, a wilful report of the actual state of a brigade, regiment, troop, or company, by which the commander in chief or the war-office is deceived, as to the effective force of such regiment, troop, or company.

FAMION, Fr. The term is derived from the Italian famione, a particular standard which was carried in the front of the ordinary baggage belonging to a brigade in the old French service. It was made of serge, and resembled in color the uniform or livery of the brigadier, or of the commandant of any particular corps.

FANTASSIN, Fr. A foot soldier. The term is derived from the Italian fantasma, a ghost, in the 16th and 17th centuries, being formed of boys who followed the armies, that were formed into corps with light arms, hence the origin of the word infantry; the French still use the words morts vivants.

FA RAILLON, Fr. a light house.

FA RIAL, Fr. a light house; also a watch light.

FA RRIER, in a general acceptance of the term, any person who shoes horses, or professes to cure their diseases. In a practical military sense a man appointed to do the duty of farrier in a troop of cavalry. Troop farriers should be under the immediate superintendence and control of a veterinary surgeon, to whom they ought to apply whenever a horse is ill or lame, that he may report the same to the officer commanding the troop. No farrier should presume to do any thing without having first received directions from his superior.

When the farrier goes round, after riding out, or exercise on horseback, he must carry his hammer, pincers, and some nails to fasten any shoe that may be loose.

Farriers are in every respect liable to be tried according to the articles of war, for misconduct or any external application contrary to the receipt given him by the veterinary surgeon.

Farriers are in every respect liable to be tried according to the articles of war, for misconduct or any external application contrary to the receipt given him by the veterinary surgeon.
Six men can make 20 fascines every hour.

FASCINES, in fortification, are a kind of fagots, made of small branches of trees or brush wood, tied together in 3, 4, 5, or 6 places, and are of various dimensions according to the purposes intended. Those that are to be used as palisades, gallant picks, or any other works of the enemy, should be 4 or 5 feet long. Those that are for making saps, trenches or chandeliers, or to raise works, or fill up ditches, are 10 feet long, and 3 or 4 feet in diameter. They are made as follows: six small pickets are struck into the ground, 2 and 2, forming little crosses, well fastened in the middle with willow bindings. On these crosses the branches are laid, and are bound round with willows at the distance of every 2 feet. Six men are employed in making a fascine; 2 cut the boughs, 2 gather them, and the remain ing 2 bind them. These six men can make 20 fascines every hour. Each fascine requires five pickets to fasten it.

FEE, a muck attack, or assault, often made to conceal the true one.

FELLOWS, or FELLIES, in artillery, are the parts of a wheel which form its circumference. The dimensions of fellies of British wheels are as follows: for a 24-pounder, 5 inches thick, and 6.5 inches broad; for a 12-pounder, 4.5 inches thick, and 6 inches broad; for a 6-pounder, 4 inches thick, and 5.5 inches broad, &c., made of dry elm. There are generally 6 in each wheel.

FELLOWS, any thing capable of defence. Such regiments as are raised for limited service, and for a limited time, are called feasible regiments. They rank junior to the line.

FENCING, the art or science of making a proper use of the sword, as well for attacking an enemy, as for defending one's self. Fencing is a genteel exercise, of which no military gentleman should be ignorant. It is learned by practising with steel foils.
Fencing is either simple, or compound. Simple is that which is performed nimbly, and off hand, on the same line. In this the principal intention, in respect to the off-hande part, should be to attack the enemy in the most unguarded quarter; and in the defensive, to parry or ward off the enemy’s thrusts or blows.

Attitude, in Fencing, the head upright, though the body hath a forward inclination on a longe; and all the weight resting on the left hau• ch when on guard. The feet, hand, body, arm, and sword, must be to the line.

Appel, in Fencing, is a sudden beat of your blade, on the contrary side to that you join your adversary on, and a quick disengagement to that side again.

Beating, in Fencing, is when you parry with a sudden short beat, to get a quick repost; or when you beat with your feet, to try if you are firm on it, or on both feet.

Battering, in Fencing, is to strike the feeble of your adversary’s blade on the side opposite to that you join, &c.

Back-quarte, a parade of a late invention, and is a round quarte over the arm.

Carre, in Fencing, is a trecce on a quarter side, also the thrust of a prime, or a seconde, at the low quarter side.

Darting, in Fencing, to defend a blow with some contraction of your arm, and to dart a thrust right forward, Ed of forward, in Fencing, made by advancing your point a little from its line and coming to it again.

Guard, in Fencing, is any of the parades you stand on.

On guard, is being placed properly on your feet, and well covered with your weapon.

Lurching in Fencing, to make an opening, to invite your adversary to thrust at you; when you, being ready, may find a favorable repost at him.

Lucking, in Fencing, is to seize your adversary’s sword at the point of his blade; by twining your left arm round it, after you close your parade, shell to shell, in order to disarm him.

Guards in (carte,) implies the putting of the tierce, finge of the body and sword in such a state of defence, as to prevent the antagonist from wounding you, by either of the thrusts to deminated. These are the principal positions on which to engage. The others, viz. prime, seconde, quinte, half-circle, &c. are termed parades, when used with the small sword.

Hanging guard, one of the broad-sword guards. See Broad-sword.

Thrusts are of various denominations, according to the direction of the point, and position of the wrist.

The thrusts directed at the inside of the body, are called prime, carre, and lowers; these at the outside, are secondes, tierce, carte over the arm, quinte and flancouade.

In teaching, the thrusts are not arranged according to the above order; it is usual to begin with carte (or quarte) and tierce, the names of which prove to have been originally the 4th and 3d positions in the art; but which are now justly considered as the chief and most elegant.

Parrying in Fencing, the action of warding off the blows aimed at each other.

Flancouade, in Fencing, is the action of dropping the point of your sword under your adversary’s hilt, in seizing with force the feeble of his blade; binding, without quitting it, form the parade in octave and then throw in your thrust. See Act of defense with sword.

Giliasde, in Fencing, is performed by dexterously making your sword slip along your adversary’s blade, and forming at the same time your extension, &c.

Fer, Fr. Iron. Figuratively, this word is used for a sword or dagger; as manier le fer, to wear the sword, to follow the profession of arms, Batterie fer, to fence.

Fer à cheval, Fr. In fortification, a horse-shoe, which see. It further means according to the French acceptation of the term, a work constructed for the purpose of covering a gate, by having within it a guard-house, to prevent the town from being surprised.

Ferdwite, in ancient military history, a term formerly used to denote a freedom from serving upon any military expedition; or according to some, the being quit of manslaughter committed in the army.

Ferries, water conveyances, made use of to cross rivers, or branches of the sea.

Firth or Firth. See Army.

Feu, Fr. Fire. Faire feu, to discharge any sort of fire arms.

Feu, fire, is also understood to mean any light combustible, which is kept up in the front of a camp, and at each post during the night to keep the soldiers alert, and to prevent them from being surprised.

Every species of fire, or light is, however, strictly forbidden on a march, when the object is to surprise an enemy. Soldiers on these occasions are not permitted to smoke. Bundles, and large waps of lighted straw, which are hung out from the tops of steeple, or from any other elevation, frequently serve to give the alarm when an enemy is discovered in the act of passing a river.

Lights are likewise resorted to on various other occasions. See Lights.

Feu de joie. See Running Fire.

Feu raisant, Fr. A grazing fire, or a discharge of ordnance or musquetry so directed that the shot shall run parallel.
with the ground they fly over, within 3 or 4 feet of the surface.
That is likewise called a fire rank, or grazing fire, which is sent in parallel directions with the faces of the different works belonging to a fortification.

FICHAIRE. See Line of Defence.

FORTIFICATION.
FIELD. The ground of battle. A battle, campaign, or the action of an army while it keeps the field.
FIELD-bed, a folding bed used by officers in their tents.
FIELD-Bow, See Bow.
FIELD-Marshals, a military rank superior to all others, except the captain general.
This rank formerly existed and has been again revived in England. The French in their modern system, have given it an effective character, it being the superior rank of distinguished generals; the number of which have a temporary limitation. Their corps d'armée or legion of 25,000 men, are each commanded by a marshal.

FIFE, a military instrument of the wind kind, generally used as an accompaniment to the drum.

FIFRE, Fr. File. In French, this word likewise means fife.

FIGHTING. Men, such as are effective, and able to bear arms.

Running-Files, that in which the enemy is continually chased.

FIGURE, in fortification, the plan of any fortified place, or the interior polygon.
Of this there are two sorts, regular, and irregular; a regular figure is that where the sides and angles are equal; an irregular one where they are unequal.

FILE, in the art of war, is an unlimited term, comprehending any number of men drawn up in a direct line behind each other; as a rank on the other hand, includes any number drawn up beside each other; whether in either respect, they be in close or open order. Or, rather, by file is meant the line of soldiers standing one behind another, which makes the depth of the battalion; and is thus distinguished from the rank, which is a line of soldiers drawn up side by side, forming the length of the battalion. A file is 2 or 3 deep; hence a battalion or regiment drawn up, consists of 2 or 3 ranks, and of as many files as there are men in a rank.

The files of a battalion of foot were formerly 12 and 6 deep, but now only 3, which is its natural formation. Those of the cavalry are 2 deep.

A File on horseback, in marching order, occupies in the ranks 3 feet; thus 3 file 9 feet. A file on foot occupies in the ranks 22 inches.

Close Files in cavalry, are at the distance which was taken before dismounting, when each man's boot-top touches, but does not press that of his neighbor.

Loose Files, in cavalry movements, are 6 inches distant from boot-top to boot-top being calculated for the gallop as well as the walk of a squadron.

Open Files in cavalry are the full breadth of a horse from boot-top to boot-top. They contain the distance which is left, when from close files the left file rears back to dismount. Recruits, and horses must be frequently exercised at this distance. See American Military Library.

Blank File, the extreme file on the right or left of a squadron or troop, battalion or company, &c.

Forming from File, is when the front file halts, and the rest ride up at a very smart gallop, taking care to halt in time, and not to over-run the front. If the formation is by doubling round the front file (for instance, when a formation is made to the rear of the march, or to the right, when marched from the right) the files must double round as close and as expeditious as possible.

In all formations from file, the leader of ranks instantly cover each other, take the ordered front and halt. See American Military Library.

In the order of files on horseback, the same directions hold good as on foot.

In addition, it must be scrupulously observed that every man's horse stands exactly straight to the same front as that of the man before him. Both in the horse and foot drill, the men should be trained to dismount. Recruits, when formed from file, the leaders of ranks instantly cover each other, take the ordered front and halt. See American Military Library.

Close Files of infantry, are soldiers standing in rank, continuous to one another, upon any given depth of line or column. Whenever a regiment marches in close file, every man should feel the arm of his next man which ever way he walks; but he must not lean on him, but must have his arm from the body to feel him. So that close files mean nothing more than that soldiers in the ranks should lightly touch each other, without crowding or pressing.

Open Files, are soldiers standing in rank at given distances without touching one another. The formation at open files is only practised as a preludinary drill for forming at close files, (which is the order for action) so that every man may be taught to stand and move in a proper position, without acquiring a habit of leaning upon his neighbor. On this account every intelligent officer who has the management of recruits, will form them sometimes at open files, and march them in that order. Soldiers that have been regularly drilled, should like-
Double Files are formed by the left files in each rank stepping to the rear of the right files, or the contrary.

Double Files, a line of men advancing or retiring from either of the flanks, from the centre or from any proportion of a line in succession to one another. They are sometimes called goose files; but the term is only familiarly, or rather vulgarly used among soldiers, and derives its appellation from a flock of geese, generally following a leader, one by one. The Prince de Ligne, says, that men march forward in file, or en ordre nature, par une instant mouvement, meaning, that they follow each other like so many sheep, who move by instinct.

File-leader, is the soldier placed in the front of any file, or the man who is to cover all those that stand directly in the rear of him, and by whom they are to be guided in all their movements.

File-leaders must be particularly careful to preserve their proper distances from which ever hand they are to dress, and the followers of each file must only be attentive to cover, and be regulated by their proper file leaders. In file the rear rank invariably dresses by, and is regulated by the front rank.

To double the Files, is to put 2 files in line making the depth of the battalion double to what it was, in number of men. Thus four deep are double files.

Marching in open files, all recruits must be taught first to face, and then to cover each other exactly in file, so that the head of the man immediately in front may conceal the heads of all the others behind him. The principal points to be attended to are, that the men move in equal time an equal pace of 2 feet, that the front rank men cover exactly, and that the rear rank men keep close and dress to the front rank.

Marching in open order to the front, is when any body of men advances by ranks at open order, and dress to some given object without touching one another. The flank man of the flank the soldiers dress to must be a non-commissioned officer, and he must take especial care not to incline to one hand or the other. His head must be kept quite straight to the front, his body must be erect, and he must advance without deviating in the most trifling manner to the right or left.

In order to execute this essential part of the drill with any degree of accuracy, two persons should be present, one in the front, and the other on the flank, to observe the dressing. Young officers should be exercised themselves in the presence of a superior officer; for upon them thereafter will greatly depend the movement of the battalion in line or column.

Marching to the front in close order, is when any number of men advance by ranks at close order, and dress to some given object each man lightly touching his next man, without crowding or pressing. The march in front by closed files is much easier than that at open files, because every man feels his right, which ever way the rank dresses, and into whatever direction the line or column moves.

To file off, is to advance, or move from any given point by files, as to file to the front, to file to the rear, to file from the right or left flank, or to file from any given command, any in some of which cases, the leading files must dismount themselves according to the directions given.

To File off, is to wheel off from march.

Runs in a spacious front, and march in length by files. When a regiment is marching in full front, or by divisions or platoons, and comes to a de- file or narrow pass, it may file off to the right or left, as the ground requires, &c.

Filing, are movements to the front, rear, or flank by files. These movements must be executed with great quickness. The files must go off at a smart gallop, and continue so till all are in file, the rear rank men dressing well to their front rank; the front rank covering well, and keeping close to the group. If the files are to be made from a flank to the front, or to rear, the whole must keep passing up to the ground from whence the first file went, before they go off; if to a flank, the horses must be turned as soon as there is room. If the files are from a flank to march along the front or rear, the other flank, every file must come off from its own ground as the next gets into file.

General and necessary Filing, are from either, or both flanks of the squadron to front, flank, or rear; filing from the centre of the squadron to the front, or flank. Filing single men by ranks, or by front or rear rank men alternately from either flank of the squadron.

In the filings of the squadron, the centre files take their places in the rear of the files unless the ground will allow them to remain on the flanks, the rear rank; but their general and proper position is in the rear of the files.

In cavalry filing, the greatest attention must be paid to keep the squadron as compact together as the nature of the movement will permit. It is a situation
in which horses move free, and without confinement, but in which the parts of a squadron are apt to lengthen out, and take up much more ground than what they stand upon in line, and is therefore to be adopted only from necessity, in broken or embarrased ground. When the word fire, has been given, and the heads of the horses have been turned ready to move off without loss of distance, the leaders of files must go off short and quick in their ordered direction. They are followed close by each man as it comes to his turn, so as to leave no unnecessary interval from one to another, and instantly to put off the ground. After being once in file, a distance of a yard from head to tail may be taken so as to trot or gallop the easier if required. Every alteration of pace ought to be made as much as possible by the whole file at once: if this is not observed, a crowding and stop in the rear will always attend such alteration.

Fire, in the art of war, a word of command to soldiers of all denominations, to discharge their fire arms, grenades, cannon, &c.

Fire, is also used to denote the discharge of all sorts of fire arms against the enemy. The fire of the infantry is by a regular discharge of their fire-locks, in platoons, divisions, &c. that of the cavalry, with their pistols; and that of a place engaged with their artillery.

Fire of the curtain or second flank, is from that part of the curtain comprehend between the face of the bastion prolonged and the angle of the flank frequently called the line of defence fanchant.

Fire, is produced by firing the artillery and small arms in a line parallel with the horizon, or parallel with those parts of the works you are defending.

Fire-arms, are all kinds of arms charged with powder and ball; every one of which is mentioned under its respective head.

Running fire, is when a rank or line of men, drawn up, fire one after another; or when the lines of an army are drawn out to fire on account of a victory; when each squadron or battalion takes it from that on its right, from the right of the first line to the left, and from the left to the right of the second line also called feu de joli.

Fire-balls. See Balls.

Fire-crew, an ancient token in Scotland for the nation to take up arms.

Fire-ship, a ship filled with a variety of combustibles to set fire to the vessels of the enemy.

Fire-ship. Proportion of combustible stores for a fire-ship of 150 tons. No.

<table>
<thead>
<tr>
<th>Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire barrels, filled with composition</td>
<td>8</td>
</tr>
<tr>
<td>Iron chambers, to blow open the ports</td>
<td>12</td>
</tr>
</tbody>
</table>

Composition for priming barrels

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>120</td>
<td></td>
<td>75</td>
<td></td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

The fire barrels are about 2 feet 4 inches high, and 1 foot 6 inches diameter. Each barrel must have four holes of about 6 inches square cut in its sides; and these holes must have a square piece of canvas nailed over them quite close. They are then filled with the same composition as for carcasses, and 4 plugs of coat 1 inch diameter and 3 inches long, and well greased are thrust into the top, and then left to dry. When dry, these plugs are taken out and the holes driven with tallow composition and quick match at the top; which goes from one hole to the other; after this the top is smeared over with meale powder mixed up with spirits of wine. When dry again a sheet or two of brown paper is laid over the top, and then one of the canvas covers, which is made secure by the upper hoop of the barrel.

Composition for dipping Reeds, Baivins, and Curtains

<table>
<thead>
<tr>
<th>Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosin</td>
<td>60</td>
</tr>
<tr>
<td>Coarse Sulphur</td>
<td>90</td>
</tr>
<tr>
<td>Pitch</td>
<td>60</td>
</tr>
<tr>
<td>Tallow</td>
<td>16</td>
</tr>
<tr>
<td>Mealed powder</td>
<td>12</td>
</tr>
</tbody>
</table>

This proportion will dip about 100 reeds and 25 baivins.

Each cover for fire bands is 1 do. of seating.

Immediately that the curtains, covers, &c. are dipped, they are to be streewed over with fine brimstone, before the composition grows cold.

The iron chambers, for blowing open the ports, hold from 9 to 11 ounces of powder. They are fixed in such a manner as to prevent their recoil, and to ensure the parts being blown open. The vents are generally corked up, and covered with a piece of barra, till required to be primed.

To fit out a fire ship. The whole breadth of the fire room is to be divided into 9 parts, and troughs laid the whole length of the room. Cross troughs of communication are laid between them, about 20 in each row, perpendicular to the long troughs. These troughs are usually 4 inches wide, and 4 deep. There are two fire trunks and two fire scutters on each side, under which the eight fire barrels are to be placed.

The reeds and baivins are to be fast driven in the troughs. The curtains are to be nailed up to the beams, equally through the fire room. The ship is not to be pruned when fitted out, but only when intended to be fired.
The fire room. The covers of all the fire barrels must be cut open, and made to

From the middle of the inside of composition strewed over it, and over all laid from the reeds to the barrels and to 4 times doubled, must be laid from the reeds to the sally ports; and the sally ports must be connected by quick match, 

From the raplins of each of the 8 slung across the bowsprit 8 

Suspended from each of the cat heads that the whole may take fire at once.

the chambers; and must be tied down to hang down on the sides of the barrels. In addition to the internal fire, before gained

all that is near it.

Besides the boxes, there are fire barrels

which were supposed to be well skilled in every kind of laboratory work.

in the artillery, gives the directions and proportions of all ingredients for each composition required in fire works, whether for the service of war, or for rejoicings and recreations.

FIRE-LOCKs, so called from their producing fire of themselves, by the action of the flint and steel; the arms carried by a foot-soldier: they were formerly 3 feet 8 inches in the barrel, and weighed 12 lbs. at present the length of the barrel is from 3 feet 3 inches to 3 feet 6 inches, and the weight of the piece from 9 to 12 lbs.

British fire-locks carry a leaden bullet of which 29 make 4 lbs. its diameter is .50 of an inch, and that of the barrel is 5th part of the shot. Fire-locks were first made use of in 1650, when matchlocks were universally disused; but when invented we cannot ascertain. A fire-lock is called by writers of about the middle of the last century, ammona, which being a low Dutch word, seems
to indicate its being a Dutch invention. Formerly, both in the manual and platoon exercises, the term fire-lock was always adopted—as shoulder your fire-lock, present your fire-lock—At present a more simple and brief mode of expression prevails, as shoulder arms, carry arms, &c., &c.

**FIRING in line.** According to regulations, the following principal heads constitute firing in line.

- The object of fire against cavalry is to keep them at a distance, and to deter them from the attack; as their movements are rapid, a reserve is always kept up. But when the fire commences against infantry, it cannot be too heavy, nor too quick while it lasts; and should be continued till the enemy is beaten or repulsed. This may not improperly be called offensive fire.

- Defensive fire, belongs principally to infantry, when posted on heights, which are to be defended by musquetry. As soldiers generally aim too high, and as fire is of the greatest consequence to troops that are on the defensive, the habitual mode of firing should therefore be either at a low level of three or four feet than a high one.

On these occasions the men are generally drawn up 3 deep; in which case the rear rank may kneel when it can be safely and usefully done; but this is now generally rejected, and the third and lower ranks for the centre rank, which fires the guns of both centre and rear rank.

- **Firing by half battalions, the line advancing.** The left wings halt, and the right ones continue to march 15 paces, at which instant the word march being given to the left wings, the right at the same time are ordered to halt, fire, and load; during which the left march on and pass them, till the right wings, being loaded and shouldered, receive the word march, on which the left ones halt, fire, &c., and thus, they alternately proceed.

- Firing by half battalions, the line retiring. The right wings come to the right about and march 15 paces, are ordered to halt, front, and when the left wings have gained 15 paces, and have received the word halt, front, the right wings are instantly ordered to fire, load, about, and march 15 paces beyond the left ones, where they receive the word halt, front, on which the left wings halt, fire, &c., and thus alternately proceed.

In manouvring many battalions there should be a regulating battalion named, by half battalions, of which each line may move, halt, and fire: the commander of each line to be with such half battalions and in giving his several commands to have an attention to the general readines of the line, especially after loading that the whole be prepared to step off together at the word march. The firing of the advanced wing succeeds the march, or the halt, front, of the retired wing instantly; and each half battalion fire independent and quick, so that no unnecessary pauses being made between the firing words, the fire of the line should be that of a volley as much as possible; and the whole being thereby loaded together, to be ready for the next command of movement. In this firing of the line advancing or retiring, the two first ranks fire standing, and the rear rank support their arms, and may change places at the second fire with the centre rank.

In this manner also may the alternate battalions of a line advance or retire, and when the whole are to form, and that the last line moves up to the first, every previous help of advancement will be given to ensure its correctness.

- **Firing in line advancing,** is when the infantry marches in line to attack the enemy and in advancing makes use of its fire. On these occasions it is better to fire the two first ranks only standing, receiving the third, than to make the front rank kneel, (as was formerly the practice) and to fire the whole; but when it is necessary to fire a considerable distance, or on a retiring enemy, volleys may be given by the three ranks, the front one kneeling.

- **Firing by platoons** is practised when a line is posted, or arrives at a fixed situation. In this position battalions fire independent of one another, and the fire generally commences from the centre of each. The first fire of the centre battalion must be regular, and established pauses and intervals; after which each platoon may continue to fire as soon as its loaded independent and as quick as possible.

The use of this is to acquire the habit of obedience to command; for in close action platoon firing is both absurd and impracticable.

- **Firing by files,** is generally used behind a parapet, hedge, or abatis. In this situation the two first ranks only can fire, and that must be by the 2 men of the same file always firing together, with caution and deliberation. Where, however, the parapet, hedge, or abatis is but a little causal, platoon firing may be resorted to.

- **Oblique firing by battalions, or otherwise, according to the ground, is extremely advantageous when it is found expedient to give an oblique direction to part of a line, or when it is discovered that their fire can in this manner be thrown against the opening of a defile, the gaps of a column, or against cavalry or infantry that direct their attack on some particular battalion or portion of the line. See Am. Mil. Lib.**

Oblique firing is either to the right and left, or from the right and left to the centre, depending entirely on the situation of the object to be fired against. The Prussians have a particular conviction for this purpose: If they are to level to the right, the rear ranks of every platoon are to make two quick but small
officers and non-commissioned officers. 

When a line halts at its points of firing, no time is to be lost in scrupulous dress-
hay, and the firing is instantly to com-
مدن. At the instant the men in the first pla-
toon recover their arms after firing, the rear platoon must advance, and moves up the front to the front of the first platoon hav-
ing fired, and the flanks towards the front, when the second from the rear advances, with recovered arms, until it receives the words _ball, ready, aim, fire_. 
The platoon which has fired, primes and loads in its ground immediately, without moving, the rear platoons only advancing. 

Street firing advancing, is conducted on the same principles, except that the platoon fire without advancing, on the front being charged by the former platoon firing round the flank.

Another timeline of street firing, advancing, generally executed more expeditiously, is, after firing, with charge by subdivisions, the platoons having taken a side step to right and left outwards, prime and load, and as soon as the last platoon has passed, file inwards and form.

FISSURE, a narrow chasm where a small breach has been made.

FIT. Qualif.-d, proper; adapted to any purpose or undertaking.

FIT for service. Strong, healthy men, from 18 to 45 years of age, of a certain height, and not subject to fits; are considered fit objects for service, and may be enlisted into the United States regi-
ments. The principal heads under which every recruit should be rejected, consist of rupture, venereal lues, or incurable pox, habitual ulcers, sore legs, scurvy, scald head, and fits.

FIT, a phrasean. Any violent affection of the body, by which a man is sud-
denly rendered incapable of going through the necessary functions of life.

FITS, habitual affections of the body to which men and women are subject, and by which they may be frequently attacked without any other immediate consequence, than a temporary suspension of the mental powers, accompanied by a disordered and painful action of the frame.

FIX-Bayonets, a word of command in the manual exercise. See Manual.

FLAGS in the United States navy, are the colors of the Union, red and white alternate stripes, equal to the number of states; with a square in the upper angle of blue, upon which are wrought white stars equal in number to the states of the Union. A custom has grown among commanders of ships of appropriating a peculiar flag for each state, but as this is not a settled regulation requires no further notice.

FLAGS. See Colors, Standards, 

FLA, in the British navy, are either red, white, blue, or yellow, and they are hoisted either at the heads of the main-mast, fore-mast, or mizen-mast.

FLAGS, when displayed from the top of the main-mast, are the distinguishing marks of admirals; when from the fore-
mast, of vice admirals; and when from the mizen-mast, of rear admirals.

The highest flag in the British navy, is the anchor and cable, which is only displayed when their lord high admiral, or lords commissioners of the admiralty are on board; the next in the union, the distinction peculiar to the second officer, called admiral of the fleet; and the lowest, a blue flag at the mizen-mast.

FLAG-OFFICER, a naval officer command-
ing a squadron.

FLAG-STAFF, the staff on which the flag is fixed.

FLAG, a word formerly used in the British service, signifying a peculiar tap or beat upon the drum, according to which each battalion went through its evolutions or exercises. The practice is laid aside, as only a matter of mere parade.
FLANK, in fortification, in general, is any part of a work that defends another work, along the outside of its parapet.

**Flank of a bastion**, in fortification, that part which joins the face to the curtain, comprehended between the angle of the curtain and that of the shoulder, and is the principal defense of the place. Its use is, to defend the curtain, the
flanks, and face of the opposite bastion, as well as the passage of the ditch; and to batter the salient angles of the counter-scarp and palisade, from whence the besieged generally ruin the flanks with their artillery; for the flanks of a fortification are those parts which the besiegers endeavor most to ruin, in order to take away the defence of the face of the opposite bastion.

The second parapet, which may be raised at the extremity of the opposite bastion, is the distance between the two parapets. These retired flanks are a great assistance to the opposite bastion and passage of the ditch; because the besiegers cannot see, nor easily dismount their guns.

Retired Flank, in fortification, is erecting the platform of the casemate, which lies hid in the bastion. These retired flanks are a great defence to the opposite bastion and passage of the ditch; because the besiegers cannot see, nor easily dismount their guns.

Flank prolonged, in fortification, is the extending of the flank from the angle of the epaule to the exterior side, when the angle of the flank is a right one.

Concerted Flank, is that which is made in the arc of a semicircle bending outwards.

Flanks of a frontier. Are the different salient points of a large extent of territory, between each of which it would be impolite for any invading army to hazard an advanced position. The late celebrated gen. Lloyd (whose accuracy of observation and solidity of conclusion with respect to the iron frontier of old France have been universally acknowledged) has furnished military men with a full and succinct account of the relative positions upon it. This long line he begins at Basle in Switzerland, and runs into various directions from thence to Dunkirk in old French Flanders, he divides it into three parts, and considers each of them separately. The first part goes from Basle to Landau and covers old Alsace, near 150 miles in length. The second from Landau to Sedan on the Meuse, covers ancient Loraine on the sides of Trier, Deux-Ponts, Luxembourg, and Limburg; 190 miles in length. From Sedan down the Meuse to Charlemon, in old Flanders, and thence to Dunkirk, is the third part, and is about 150 miles; so that the whole natural frontier of old France was 470 miles. The greatest part, if not the whole of which, is in the shape of a horse shoe, and presents impregnable flanks.

Anonymous writer, after referring the reader to general Lloyd for a specific account of the first and second lines of the French frontier, has made the following observations relative to the third and last which runs from Sedan down the Meuse to Charlemon, from thence to Dunkirk, and is 150 miles in length. His words are—While the duke of Brunswick and the king of Prussia were ruining the most formidable armies in Europe by endeavoring to penetrate a few miles into Lorraine and Champagne through the first and second line, (without having previously secured the two flanks,) the French with redoubled activity operated upon the third, and finally subdued all Flaniers. These very difficulties, in fact which presented themselves to oppose the progress of the allied army into France, facilitated every excursion undertaken, as the direction of the line which goes from Sedan to Landau is concave towards that part of Germany.

The remainder of this line, (within which so many faults were committed, or rather could not be avoided, because the impression itself was founded in error,) runs to Dunkirk. It has been the scene of successive wars for nearly two centuries, the most expensive, bloody, and durable of any recorded in the annals of mankind. This line, continues general Lloyd, is stronger by art than nature, having a prodigious number of strong fortresses and posts upon it, moreover it projects in many places, so that an enemy can enter no where, without having some of them in front and on his flanks.

The United States are flanked by Canada and Florida.

Flanks, in fortification, a wrench, or any other grief in the back of a horse.

To Flank, in fortification, is to erect a battery which may play upon an enemy's works on the right or left without being exposed to his line of fire. For fortification, which has no defence but right forward, is faulty; and to make it complete, one part ought to flank the other.

To Flank, in evolutions, to take such a position in action as either to assist your own troops, or to annoy those of your enemy by attacking either of his flanks, without exposing yourself to all his fire.

To Out-Flank, a maneuver by which an army, battalion, troop, or company outstretches another, and gets upon both or either of its flanks.

To Out-Flank, in an extensive acceptance of the term, when applied to locality, means to possess any range of opposite parts, or territory, where you might invade your neighbor. Thus France, by her present possessions along the Dutch and Flemish coasts, outflanks all the opposite shores of England, properly so called; resting her left flank at...
FLASH.—The flame which issues from any piece of ordnance, as in the pan, a gun-powder flask.

FLASH, in artillery, are the two cheeks of the carriage of a great gun. See April.

FLASH likewise means a gun-powder flask.

FLAT-bottomed boats, in military affairs, are made to swim in shallow water, and to carry a great number of troops, artillery, ammunition, &c. They are constructed in the following manner: 12-pounder, bow chase, an 18 ditto, stern chase; 90 to 100 feet keel; 12 to 24 ditto beam; 1 mast, a large square main-sail; a jib-sail: they are rowed by 18 or 20 oars, and can each carry 450 men. The gun takes up one bow, and a brace the other, over which the troops are to march. Those that carry horses have therefore parts of the boats made to roll the horses. See Arsenals.

FLEAU, or for, an iron instrument or weapon, that resembles in shape the flails with which corn is thrashed.

FLECHE, in field fortification, a work of two faces, usually raised in the field, to cover the quarter guards of a camp or advanced post.

FLETCHER. See BOW.

FLIGHT, is used figuratively for the swift retreat of an army or any party from a victorious enemy.

To put to flight, to force your enemy to quit the field of battle.

Flight is likewise applicable to missile weapons or shot, as a flight of arrows, a light of bombs, &c.

FLINT, a well-known stone, used at present with every sort of fire arms. Every soldier ought to have one or two spare flints when on service.

FLINTS are usually packed in half barrels.

Weight. quarts, lbs.
One half-barrel, Musquet, 2500 - 2 14
Rel. contains. Pistol, 3000 - 2 15
The most transparent and free from flaws are esteemed the best flints.
28 kegs of musquet flints take 18 cwt. in tonnage.
10 kegs of pistol flints take 5 cwt. 2 qrs.

in tonnage.

To float, a column is said to float when it loses its perpendicular line in march, and becomes unstable in its movements.

FLOATING-batteries, vessels used as batteries, to cover troops in landing on an enemy's coast.

FLOGGING, a barbarous punishment in general use among the British foot soldiers. It is inflicted with a whip.
having several lashes, and is calculated to degrade and render the man totally unfit for service. It is not practiced in any other army in Europe.

FLOOD-GATE, in fortified towns, is composed of 2 or 4 gates so that the besiegers, by opening the gates may inundate the environs so as to keep the enemy out of gun shot.

FLOOR. See Platform.

FLOURISH, in a general musical acceptance of the term, is to play some prelude or preparatory air without any settled rule.

A flourish, any vibration of sound that issues from a musical instrument.

The trumpet flourish in drawing swords, is used ceremonially by corps of cavalry on their own accord, and is the sounding used in receiving a general officer.

FLOWER de Lys. The arms of France under the old monarchy. They consisted in three flowers de lis or, or gold, in a field azur, or blue. These arms were superceded by the three colored flag, when the bastile was taken and destroyed by the inhabitants of Paris.

FLUSHED, a term frequently applied when men have been successful, as flushed with victory, &c.

FLUTE, a wind instrument which is sometimes used in military bands; but always on service.

FLUX, an extraordinary evacuation of the body, to which soldiers are frequently subject on service. Towards the fall of the year this disorder is particularly prevalent, especially in camps. It is of a contagious nature, and the greatest care should be taken to prevent the healthy men in a regiment from frequenting the privies to which those infected by this cruel disorder are permitted to resort. A censory should always be posted in the vicinity of every hospital for that specific purpose.

FLYING. See Army.

FLYING Bridge. See Bridge.

FLYING Artillery. See Horse Artillery.

FLYING-Camp. See Camp.

FOCUS, in fencing. See Fencing.

FOE. See Enemy.

FOIL, in fencing, a long piece of steel of an elastic temper, mounted somewhat like a sword, which is used to learn to fence with; it is without a point, or any sharpness, having a button at the extremity, covered with leather.

To foil, to defeat.

FOLLOWERS of a camp. Officers servants, sutlers, &c. All followers of a camp are subject to the articles of war equally with the soldiers.

FOND, ground, properly means the surface of the earth which lies above the water.

FONDEMENTS, Fr. foundation.

FONDERIE, Fr. forge, ou Fort, neufs. See Fonderie.

FONDS destinés pour le payement, des troupes. Fr. Monies issued for the service of the army.

FONTE. See FOUNDRY.

FONDS de pieces d'artillerie. The metal used in the casting of cannon which consists of three sorts well mixed together, viz. copper, tin, and brass.

FOOT, in a military sense, signifies all those bodies of men that serve on foot.

See Infantry.

Foot is also a long measure, consisting of 12 inches. Geometers divide the foot into 10 digits, and the digits into inches; and the Rhineland or English inches are equal to 950 to 1000.

The proportions of the principal places of Europe are as follow: The English foot divided into 1000 parts, or 12 inches, the other feet will be as follows:
To be on the same footing with another, is to be under the same circumstances in point of service; to have the same number of men, and the same pay, &c.

To gain or lose ground foot by foot, is to do it regularly and resolutely; defending every thing to the utmost extremity, or forcing it by dint of art or labor.

Foot-bank in fortification. See Bawares.

Forage, in the art of war, implies hay, straw, and oats, for the subsistence of the army horses. This forage is divided into rations, one of which is a day’s allowance for a horse, and contains 20 lb. of hay, 10 lb. of oats and 5 lb. of straw.

Dry forage, oats, hay, &c. which are delivered out of magazines to a garrison, or to troops when they take the field, before the green forage is sufficiently grown to be cut or gathered.

Green forage, oats, hay, &c. that have been recently cut. It likewise means meadow pasture, into which horses are turned.

When the British cavalry are stationed in barracks, the number of rations of forage to be issued to the horses of the officers, non-commissioned officers, and soldiers is not to exceed what follows, and is to be confined to those which are actually effective in the barracks.

Rations.

Field officers, having 4 effective horses
Captains, having 3 ditto
Subalterns and staff officers, having 2 ditto
Quarter masters, each
Non-commissioned officers and privates, each
For each of which rations a stoppage is to be made of 8/12 per diem.

Forage, an armament or warlike preparation. Force, in a military sense, any body of troops collected together for warlike enterprise.

Effective Forces. All the efficient parts of an army that may be brought into action are called effective, and generally consist of artillery, cavalry, and infantry, with their necessary appendages such as hospital staff, waggon-train, artificers and pioneers: the latter, though they cannot be considered as effective fighting men, constitute so far a part of effective forces, that no army could maintain the field without them.

Effective Forces of a country. All the disposable strength, vigor and activity of any armed proportion of native or territorial population. The navy of Great Britain must be looked upon as part of the effective force of England, to which is added the body of marines.

Distribution of the effective Forces of a country. Under this head may be considered, not only the effective forces which might engage an enemy, but likewise those included in the several returns that are made from home to foreign stations to the war office, and out of which a grand total is formed to correspond with the estimates that are annually laid before the government.

To force is to take by storm; also to man the works of a garrison.

To force an enemy to give battle. To render the situation of an enemy so hazardous, that whether he attempt to quit his position, or endeavor to keep it, his capture or destruction must be equally inevitable. In either of which desperate cases, a bold and determined general will not wait to be attacked, but resolutely advance and give battle; especially if circumstances should combine to deprive him of the means of escape, and are delivered out of magazines to a garrison, or to troops when they take the field, before the green forage is sufficient to man the works of a garrison.

Forcing an adversary’s guard or blade, a term used in the science of broadsword.

If at any time your antagonist appears languid and weak on his guard, and barely covers his body on the side he is opposed; by stepping well forward, and striking the fort of your sword smartly on his blade, you may be enabled to deliver a cut without risk, even at the part he intends to secure, taking care to direct your blade in such a manner, that the plate or cross bar of your hilt shall prevent his sword from coming forward.

Act of defence foot.

Forceps, an instrument used in chirurgery, to extract any thing out of wounds or to take hold of dead or corrupt flesh, to amputate. It is made somewhat in the shape of a pair of tongs or pincers, with grappling ends. Every regimental surgeon, or assistant surgeon, should have a pair among his set of instruments.

Ford. The shallow part of a river where soldiers may pass over without injuring their arms.

Forer-rank, first rank, front.

Foreign serv ion, in a general sense, means every service but home. In a more confined and native acceptance of the term, it signifies any service done out of the limits of the United States, or the dependent territories.
FOREIGN troops, in an English accep-
tation, regiments or companies which are
composed of aliens, as the Hessians in the
American Revolution. Before the present
was, no foreigner could bear a commis-
sion in the British service, or be enlisted
as a soldier.
FORELAND, in fortification, called
by the French pas de sortie, retains, re-
trate, fossé or lienier, a confined space of
ground between the rampart of a town
or fortified place, and the moat. When-
ever a fortification can be completed
without having recourse to this substi-
tute for stone, (with which the rampart
ought to be faced,) it certainly is advisa-
ble to do so to the expense. For a bold
enemy, who has once made his way
over the moat, will derive considerable
advantage from having this path to
stand which ever hand the file is forming to,
and prevent the ditch from being filled up.
In Holland the foreland is planted with
thickset, but it is generally faced with
classides. See Barr.
FORELAND, any point of land or
FORENESS, which juts out into
the sea.
FORGE, in the train of artillery,
is generally called a travelling forge, and
may not be improperly called a portable
smith's shop; at this forge all manner of
smith's work is made, and it can be used
upon a march, as well as in camp. For-
merly they were very ill contrived, with
2 wheels only, and wooden supporters to
prop the forge for working when in the
park. Of late years they are made with
4 wheels, which answers the purpose
much better.
FORGE for red hot balls, is a place
where the balls are made red-hot before
they are fired off: it is built about 5 or
6 feet below the surface of the ground,
of strong brick work, and an iron grate,
upon which the balls are laid, with a
very large fire under them. See RED HOT
BALLS.
FORKHEAD. See Barr.
FORLORN-lope, in the military art,
signifies men detached from several re-
iments, or otherwise appointed to make
the first attack in the day of battle; or at
a siege, to storm the counterparcels, mount
the breach, &c. They are so called from
the great danger they are unavoidably
exposed to; but the expression is old,
and begins to be obsolete.
FORM, in a general acceptation of
the term, is to assume or produce any
shape or figure, extent or depth of line
or column, by means of prescribed rules
in military movements or dispositions.
To FORM from file, among cavalry. The
front file halts at a given point: the 2nd,
or remaining files successively ride up at
a very smart gallop, taking care to halt
in time, and not to over-run the ground.
If the formation is by doubling round
the front file, (in a formation, for in-
stance, to the rear of the march, or to
the right when marched from the right,) the
files must double as close round as
possible and with the utmost expedition.
In forming from file, particular attention
should be given to make the men put
their horses quite straight as they come
in. They must keep their bodies square,
dress by a slight cast of the eye towards
the point of formation, and close and
dress in an instant. A dragoon, in fact,
must no sooner get into the ranks, than
his attention should be given to remain
steady, well closed and dressed. It is
generally required, that when the cavalry
forms, each man must come up in file to
his place, and by no means move up to
the leader, till that leader has turned to
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should be given to make the men put
their horses quite straight as they come
in. They must keep their bodies square,
true points in the general line. In the French service these persons are called 
plumes from plume, to fix any thing, by which any true direction, perpendicular or otherwise, may be obtained; the word guide is the best translation of the word plume, and it is so used in the American Military Library.

To Form line, is to wheel to the right or left from open column of divisions, subdivisions, or sections, according to prescribed rules, so as to present one continued front or straight line; or to deploy from close column for the same end, or to file to the front.

To Form rank entire, is to extend the front of a battalion or company by reducing it to the least possible depth, from any existing number of ranks.

To Form two deep, is from rank entire or from three deep to produce a regular line of five, or from close column for the same end, or to wheel a given number of ranks forward or backward, so as to present one continued line, by adding one half line to its depth.

To Form three deep, is to add the depth of one half file to two deep, and to produce a natural formation of a battalion in line.

To Form four deep, is to diminish the natural extent of a battalion formed in line, by adding one half file to its depth.

To Form echelon, is, from line, or open column, to wheel a given number of files forward or backward, so as to produce a diagonal or oblique direction in the different proportions of a line, the outward flank of each succeeding division, company or section, constantly preserving a perpendicular direction, at a regulated distance, from the inward flank of its leader, until it arrive at its point of junction.

To Form line by echelon, is to advance in column towards any given object by a diagonal movement, so as eventually to present one continued line, or to march by files, so that the several proportions of a line may stand in a perpendicular direction to one another, with intervals between them equal to the extent of their front.

To Form close column, is to march by files in detached proportions of a line, till each proportion shall arrive in front or in rear of any given body.

To Form open column, is to wheel backwards or forwards, or to march out by files, so that the several proportions of a line may stand in a perpendicular direction to one another, with intervals between them equal to the extent of their front.

To Form circle, is to march a battalion or company standing in line from its two flanks; the leading files bringing their right and left shoulders forward, so as to unite the whole in a circular continuity of file. On the word command—To the right and left, form circle, the two flank files bring their right and left shoulders forward; and on the word quick, march, the whole advance. The centre marks time, each file from the direct centre one gradually inclining to right and left till the junction of the two extremes has been completed.

The general use which is made of this formation is to punish offenders, or to convey public orders to the men in such a manner, that every individual may have an equal opportunity of hearing what is said, or delivered to the whole battalion.

To Form on, is to advance forward, so as to connect yourself with any given object of formation, and to lengthen the line.

To Form on a front division, is from close, open column, or by the march in echelon, to arrive by a parallel movement at the right or left of any given division, by which means a prolongation of the line is produced. When this formation takes place with the right in front, the officer of the second, or leading division (the first standing fast, and all the rest facing to the left) having stepped out to the right at the words quick march! allows his division led by his serjeant to go on a space equal to its front, and then gives his word front, dress, halt! his serjeant still remaining on the left of his division. The officer being still on the right of his division, immediately gives the word march! and the division proceeds at the ordinary step towards its place in the alignment. He steps nimbly forward, and oblique so as to be within the third file of the left flank of the preceding division, and is thus ready to give the words, dress, halt! at the instant his inward flank man joins that division. He then expeditiously corrects his men, (who have dressed upon the formed part of the line, on the distant given point) and resumes his proper post in line. Great care should be taken in these movements to prevent the outward flank of every advancing division from over-stepping its ground; as it is a general principle in dressing, to be rather behind the preceding formed division at the word dress, than before it; the word halt being the final and conclusive direction, and the dressing of ranks being more easily attained by a forward than a backward movement.

In this manner every other division proceeds; each officer advancing, with a firm, steady step, in a perpendicular direction towards his point of formation, while the flank serjeant remains at his point in the line, till the succeeding officer, who has dressed his division, arrives to replace him; after which the serjeant covers his own officer.

To Form on a rear division, is to face all the preceding divisions which are in column to the right, (the point of forming having been previously taken in that direction, as far as the prolongation of the head division will extend, and just beyond where the right of the battalion is to come) and to uncover the rear one, so as to enable it to advance forward to a given point on the left, and take up its place in the alignment.

The leader of the front or head division
Having been shown the distant point in the alignment on which he is to march, and having taken his intermediate points, if necessary, at the word march, the faced division step off quick, heads of files are dressed to the left, the front one moves in the alignment with scrupulous exactitude, and the others continue in a parallel direction close on its right; each carefully preserving its relative points of prolongation, and being fronted by its officer the instant it gets upon the ground, which is perpendicular to its intended formation in line.

So soon as the rear division is uncovered, and has received the word march, it proceeds forward, and when arrived within a few paces of its ground, the officer commanding steps nimbly up to the detached officer or sergeant, who has carefully marked its left in the new position, gives the words dress, halt, and quickly corrects his division on the distant point of formation; after which he replaces the sergeant on the right of his division. As the officer who conducts this division has necessarily the longest extent of ground to march, he must take especial care to observe his perpendicular direction, constantly keeping the different points of formation in his eye, and preserving a perfect squarness of person. The intermediate divisions will successively dress, halt, and advance as the ground opens before them.

To Form on a central division. To execute this manoeuvre, the front and rear divisions must deploy, or open, so as to uncover the named division, and enable it to move up to a given point of alignment. A forming point must be given to both flanks in the prolongation of the head division.

When the caution of forming on a central division has been given, the leading officers will shift to the heads of their several divisions, the instant they have been faced according to the hand which leads to their ground. The files dressing before they march forward. The central division, when uncovered, moves up into line to its marked flank. Those that were in front of it proceed as in forming on a rear division; the other companies face to the right, deploy, successively form, halt, dress, and move up into the alignment.

To Form line on a rear company of the open column, standing in echelon, that company remains placed; the others face about, wheel back on the pivot flank of the column, as being those which afterwards first come into line. On the word march, they move forward, and then dress, halt, dress, successively, in the line of the rear company.

To Form line on the rear company facing to the rear of the open column standing in echelon, the whole column must first countermarch, each company by files, and then proceed as in forming on a front company.

To Form line on a central company of the open column, that company stands fast, or is wheeled on its own centre into a new required direction. Those in front, must be ordered to face about. Those in front, on the proper pivot flanks of the column, and those in its rear on the reverse flanks, such being the flanks that first arrive in line. The whole then marches in line with the central company. See Am. Mil. Lib.

To Form line from close column on a rear company facing to the rear, the whole of the column changes front by countermarch, each company by files. The rear company stands fast, and the remaining companies face to the right, deploy, successively form, halt, dress, and move up into the alignment.

To Form line from close column on a central company facing to the rear, the central company countermarches and stands fast; the other companies face outwards, countermarch, deploy, and successively march up to the alignment. Whenever the column is a retiring one, and the line is to front to the rear, the divisions must countermarch before the formation begins. In which case the head would be thrown back, and the rear forward.

To Form en masse, to wheel the right or left flank of a body of men, or to march them forward by files, so as to make that proportion of a line face inwards, and resemble a potence or angle. A double potence may be formed by running out both flanks, so that they stand in a perpendicular direction facing towards each other like the letter A, or thus, — ; these oblique lines are the potences formed by the power of their cross fire. This formation is not only extremely useful on actual service, but it continues greatly to the accommodation of any body of men which may be marched into a place that has not sufficient extent of ground to receive it in line.

FORMATION, in a military sense, the methodical arrangement, or drawing up of any given body of men mounted.
or on foot, according to prescribed rules and regulations.

Cavalry Formations consist of the following proportions:

Squadrons of cavalry are composed of two troops; regiments are composed of ten.

Formation of a troop is the drawing out of a certain number of men on horseback or on their troop parade, in a rank entire, fixed according to the size of each, the tallest men in the centre.

Formation of a squadron is the military disposition of two troops that compose it closed into each, from their several troop parades. In this situation, the officers march out, and form in a rank advanced two horses length, on the right of their troops. The sergeant and covering corporals rein back, and dress with the quarter-master in the rear. When the formation of a squadron has been completed, and its component parts have been accurately told off, the commanding officer is advanced a horse's length before the standard. Two officers are posted, one on each flank of the front rank, covered by a non-commissioned officer. One officer is posted in the centre of the front rank with the standard, and is covered by a corporal.

The serjeants are placed on the right of the front of each of the four divisions, except the right one, and each of covered by a corporal or private dragoon. The serjeants of the squadron, the quarter-masters, and trumpeters, are in the rear of their several troops, divided in a line, at two horses distance from the rear rank. Farriers are behind the serjeants a horse's length, and are always made for sick and absent officers and non-commissioned officers; and if a sufficient number of any rank is not present, then serjeants replace officers, corporals replace serjeants, and lance-corps replace corporals and lance-corps of the squadron.

Formation, considered as to general circumstances, admits of a few deviations from the strict letter of the term. In order to preserve each troop entire, it is not material, if one division be a file stronger than another. The flank divisions, indeed, both in cavalry and infantry regiments, will be strongest from the addition of officers. Officers, in the formation of squadrons, are recommended to be posted with their troops. Corporals not wanted to mark the divisions, or to cover officers or serjeants, will be in the ranks according to their size, or be placed in the outward flank file of their troops. Farriers are considered as detached in all situations of manœuvre.

All these general circumstances of formations apply and take place, whether the squadron be composed of two, or more troops, and whether the troops be more or less strong.

General modes of formation are when a regiment broken into and marching in open column, must arrive at and enter on the ground on which it is to form in line, either in the direction of that line, perpendicular to that line, or in a direction more or less oblique between the other two.

Infantry Formation is the arrangement or disposition of any given number of men on foot according to prescribed rules and regulations. When the companies join, which are generally ten in number, the battalion is formed; there is not to be any interval between the relative parts, but the whole front must present a continuity of points, and one compact regular line from one flank file to the other.

The formation or drawing up of the companies will be from right to left. There is much folly prevalent on the subject of positions of companies. Steuben's work has endeavored to fix a plan of alteration, but failed. A simple principle would be to number the companies from right to left, and form the first battalion of 1, 3, 5, 7, 9, and the second of 2, 4, 6, 8, 10. Officers commanding companies or platoons are all on the right of their respective ones.

The eight battalion companies will compose four grand divisions-eightscompanies or platoons-sixteen subdivisions-thirty-two sections, when sufficiently strong to be so divided, otherwise twentyfour, for the purposes of march. The battalion is likewise divided into right and left wings. When the battalion is a war establishment, each company will be divided into two equal parts. When the ten companies are with the battalion, they may then be divided into five grand divisions from right to left. This is done to render the lines more exact, and to facilitate deploy movements.

The battalion companies will be numbered from the right to the left 1, 2, 3, 4, 5, 6, 7, 8. The subdivisions will be numbered 1, 2, 3, 4, and the grenadiers and light companies will be numbered separately in the same manner, and with the addition of those distinctions. No alteration is to be made in these appellations whether the battalion be faced to front or rear.

Formation at close order, is the arrangement of any given number of men in ranks at the distance of one pace, except where there is a fourth, or supernumerary rank, which has three paces. In firing order the ranks are more closely locked in.

When a battalion is formed in close order, the field officers and adjutant are mounted. The commanding officer is the only officer advanced in front for the general purpose of exercise, when the battalion is single; but in the march in
line, and during the firing, he is in the rear of the colors. The lieutenant colonel is behind the colors, six paces from the rear rank. The major and adjutant are six paces in the rear of the third and sixth companies. The officers are on the right of the front rank of each company or platoon, and one on the left of the battalion. All these are covered in the rear by their respective sergeants, and the remaining officers and sergeants are in a fourth rank behind them. There are no coverers in the centre rank to officers or colors. The colors are placed between the fourth and fifth battalion companies, both in the front rank, and each covered by a non-commissioned officer, or steady man in the rear rank. One sergeant is in the front rank between the colors; he is covered by a second sergeant in the rear rank, and by a third in the supernumerary rank. The sole business of these three sergeants is, when the battalion moves in line, to act as guides, and direct the march according to prescribed instructions. The place of the first of those sergeants, when they do move out, is precured by a named officer or sergeant, who moves up from the supernumerary rank for that purpose. The pioneers are assembled behind the centre, formed two deep, and nine paces from the third rank. The drummers of the eight battalion companies are assembled in two divisions, six paces behind the third rank of their 2d and 7th companies. The music are three paces behind the pioneers, in a single rank, and at all times, as well as the drummers and pioneers, are formed at loose files only, occupying no more space than is necessary. The staff officers are three paces behind the music.

**Formation at open order,** is any open disposition, or arrangement of men by ranks, at straight lines parallel to each other.

When a battalion is directed to take open order, the rear ranks fall back one and two paces, each dressing by the right the instant it arrives on the ground. The officers in the front rank, as also the colors, move out three paces. Those in the rear, together with the music, advance through the intervals left open by the front rank officers, and divide themselves in the following manner: the captains covering the second file from the right, the lieutenants the second file from the left, and the ensigns opposite the centre of their respective companies. The music form between the colors and the front rank. The sergeant covers move up to the front rank, to fill up the intervals left by the officers. The pioneers fall back to six paces distance behind the centre of the rear rank. The drummers take the same distance behind their divisions. The major moves to the right of the line of officers; the adjutant to the left of the front rank. The staff place themselves on the right of the front rank of the grenadiers. The colonel and lieutenant-colonel dismounted, advance before the colors four and two paces.

**Formers,** round pieces of wood that are fitted to the diameter of the bore of a gun, round which the cartridge paper, parchement, lead, or cotton is rolled before it is sewed.

**Formers** were likewise used among officers and soldiers to reduce their clubs to an uniform shape, before the general introduction of tails.

**Formation of guards.** See Guards.

**Fort,** in the military art, a small fortified place, environed on all sides with a ditch, rampart, and parapet. Its use is to secure some high ground, or the passage of a river, or to make good an advantageous post, to defend the lines and quarters of a siege, &c.

Forts are made of different figures and extents, according to the exigency of the service, or the peculiar nature of the ground. Some are fortified with bastions, others with demi-bastions. Some are in form of a square, others of a pentagon. Some again are made in the form of a star, having 5 or 7 angles. A fort differs from a citadel, the last being built to command some town. See Citadel.

**Pyramidal Fort,** one whose line of defence is at least 20 toises long.

**Triangular Forts,** are frequently made with half bastions; but they are very imperfect, because the faces are not seen or defended from any other part. If, instead of being terminated at the angle, they were directed to a point about 20 toises from it, they would be much better, as then they might be defended by that length of the rampart, though but very obliquely. The ditch ought to be from 8 to 10 toises. Sometimes instead of half bastions at the angles, whole ones are placed in the middle of the sides. The gorges of these bastions may be from 10 to 24 toises, when the sides are from 100 to 120; the flanks are perpendicular to the sides, from 20 to 12 toises long; and the capitals from 20 to 24. If the sides happen to be more or less, the parts of the bastions are likewise made more or less in proportion. The ditch round this fort may be 10 or 12 toises wide.

The ramparts and parapets of these sorts of works are commonly made of turf, and the outside of the parapet is raised; that is, a row of palisades is placed about the middle of the slope; in an horizontal manner, the points declining rather a little downwards, that the grenades or fireworks thrown upon them may roll down into the ditch; and if the ditch is dry, a row of palisades should be placed in the middle of it, to prevent the enemy from passing over it unperceived, and to secure the fort from any surprise.

**Fort de campagne,** Fr. a field fortification. See Fortification.
FORTERESSE, Fr. Fortress. Any strong place rendered safe by art, or originally by natural advantages, or by means of both nature and art. Places which are strong by nature generally stand upon mountains, promontories, in the middle of a marsh, on the sea-coast, in a lake, or on the banks of some large river. Places which are strong by art, owe their strength to the labor of man, whose ingenuity and perseverance substitute ditches and ramparts where mountains and rivers are wanting.

Fortification, is the art of fortifying a town, or other place; or of putting it in such a posture of defence, that every one of its parts defends, and is defended by some other parts, by means of ramparts, towers, ditches, and other outworks, so that a small number of men within may be able to defend themselves for a considerable time against the assaults of a numerous army without; so that the enemy, in attacking them, must of necessity suffer great loss.

Fortification may be divided into ancient and modern; offensive, and defensive; regular, and irregular; natural, and artificial, &c.

Ancient Fortification, at first, consisted of walls or defences made of trunks, and other branches of trees, mixed with earth, for security against the attacks of enemies. Invention owes its origin to necessity; fortification seems to have had fear for its basis; for when man had no other enemy but the wild beasts, the walls of his cottage were his security; but when pride, ambition, and avarice, had possessed the minds of the strong and the daring to commit violence upon their weaker neighbors, either to subject them to new laws, or to plunder their little inheritance, it was natural for the latter to contrive how to defend themselves from such injuries.

Our Aborigines of North America, have left traces of fortification in its infancy, of which there are some curious and magnificent remains on the Miami river, in the state of Ohio.

There are abundance of Indian villages fenced round by long stakes driven into the ground, with moss or earth to fill the intervals; and this is their security (together with their own vigilance) against the cruelty of the savage neighboring nations.

Nor is fortification much less ancient than mankind; for Cain, the son of Adam, built a city with a wall round it upon mount Liban, anci called it after the name of his son Enoch, the ruins of which, it is said, are to be seen to this day; and the Babylonians, soon after the deluge, built cities and encompassed them with strong walls.

At first people thought themselves safe enough with a single wall, behind which they made use of their darts and arrows with safety: but as other warlike instruments were continually invented to destroy these forlorn structures, man and other hand persons acting on the defensive were obliged to build stronger and stronger to resist the new contrived forces of the desperate assailants.

What improvements they made in strengthening their walls many ages ago, appear from history. The first walls we ever read of, and which were built by Cain, were of brick; and the ancient Grecians, long before Rome was ever thought of, used brick and rubble stone, with which they built a vast wall, joining mount Hymetus to the city of Athens. The Babylonian walls, built by Semiramis, or, as others will have it, by Buce, were 35 feet thick, and 120 feet above the ground, with towers 10 feet higher, built upon them, cemented with bitumen or asphaltum. Those of Jerusalem seem to have come but little short of them, since, in the siege by Titus, all the Roman battering rams, joined with Roman art and courage, could remove but 4 stones out of the tower of Antonia in a whole night's assault.

After fortification had arrived at this height, it stopped for many ages, till the use of gunpowder and guns was found out; and then the round and square towers, which were very good hands against bows and arrows, were contrived but inferior ones against the violence of cannon; nor did the battlements any longer offer a hiding-place, when the force of gun-shot both overset the battlements, and destroyed those who sought security from it.

Modern Fortification, is the way of defence now used, turning the walls into ramparts, and square and round towers into bastions, defended by numerous outworks; all which are made so solid, that they cannot be beat down, but by the continual fire of several batteries of cannon. These bastions at first were but small, their gorges narrow, their flanks and faces short, and at a great distance from each other, as are those now to be seen in the city of Antwerp, built in 1560 by Charles V., emperor of Germany; since which time they have been greatly improved and enlarged, and are now arrived to that degree of strength, that it is almost a received opinion, that the art of fortification is at its height, and almost incapable of being carried to a much greater perfection.

Offensive Fortification, shows how to besiege and take a fortified place; it further teaches a general how to take all advantages for his troops; the manner of encamping, and method of carrying on either a regular or irregular siege, according as circumstances may direct.

Defensive Fortification, shows a governor how to make the most of a garrison committed to his care, and to provide all things necessary for its defense.
Regular Fortification, is that built in a regular polygon, the sides and angles of which are all equal, being commonly a musquet shot from each other, and fortified according to the rules of art.

Irregular Fortification, on the contrary, is that where the sides and angles are not uniform, equal, or equal; which is owing to the irregularity of the ground, valleys, trees, hills, and the like.

To Fortify towards, is to represent the base of the polygon proposed to be fortified; and then that polygon is called the exterior polygon, and each of its sides the exterior side, terminating at the points of the two nearest bastions.

To Fortify curiously, is to represent the bastion without the polygon proposed to be fortified, and then that polygon is called the interior polygon, and each of its sides the interior side, terminating in the centres of the two nearest bastions.

Elementary Fortification, by some is called the theory of fortification, consists in tracing the plans and profiles of a fortification on paper, with scales and compasses; and examining the systems proposed by different authors, in order to discover their advantages and disadvantages. The elementary part is likewise divided into regular and irregular fortification, which see.

Front Fortification, any proportion of the body of a place, consisting of two half bastions and a curtain.

Practical Fortification, consists in forming a project of a fortification, according to the nature of the ground, and other necessary circumstances, to trace it on the ground, and to execute the project, together with all the military buildings, such as magazines, store houses, barracks, bridges, &c.

The names of every part of a Fortification: and first of lines, which are divided into right lines, and curve lines.

Line of defence, is the distance between the salient angle of the bastion, and the opposite flank; that is, it is the face produced to the flank. Common experience, together with some of the greatest artists in fortification, unanimously agree, that the lines of defence may exceed (though not exceed) 150 fathoms. Some indeed will affirm, that as a musquet does not carry more than 150 fathom point blank, the angle of the bastion should be no further removed from its opposite flank. We agree that a musquet carries no farther point blank; but we are sure it will do execution, and kill, at 150 fathom. The enemy generally makes his breaches near the middle of the face; which if granted, the line of fire from the flank to the breach, scarcely exceeds 150 fathom; besides, the cannon of the flank does less execution upon a short line of defence than on a long one.

Line of defence sikhant, is a line drawn from the angle of the curtain, to the point of the opposite bastion, which is not to exceed 150 fathom; and from the point of the curtain, and flank, to the face of the opposite bastion, which is to be defended. This line may not improperly be called in good English the butting flank, since it partly sees the opposite faces in reverse; and the shot from it, especially near the sikhant, strike against the faces.

Authors are numerous both for and against the sikhant and evant lines; we can only set down as a fixed rule, that the more powerful the active quality is, the more the passive must suffer; that in fortification the active quality is the fire, which discovers the assailants (who are the passive) going to attack the face of the opposite bastion; consequently, the more this active quality is augmented, so much the more must the passive subjects suffer; and from thence we argue for the sikhant flank, since it augments this active quality, by all the fire of the curtain added to the flank, which is the principal action in the art of defence.

Line of defence evant, is a line drawn from the point of the bastion along the face, till it comes to the curtain, which shows how much of the curtain will clear, or defend the face. This line may very justly in our language be called the sweeping flank; because the shot as it were sweeps along the opposite faces. This line, as well as the sikhant, has many supporters, and as many opponents. In our humble opinion, the line sikhant is preferable to the line evant.

Line of circumvallation. See siege.

Line of contra-vallation. See Counter-Approaches.

Line of counter-approaches. See Approaches.

Capital line, is an imaginary line which divides the work into two equal and similar parts, or a line drawn from the point of the bastion to the point where the two demi-jorris meet, &c.

Line of defence prolonged. In the square, and most polygons of the lesser fortification, you prolong the line of defence; but in the polygons of the greater and meaner, you draw a line from the angle of the opposite shoulder to the angle of the curtain, upon which you raise a perpendicular, which serves for the first line of the flank.

Names of the angles in a Fortification.

Angle of the centre, in a polygon, is formed by two radii drawn to the extremities of the same side, or from the centres, terminating at the two nearest angles of the figure.

Angle of a bastion, that which is made Flanked angles, by the two faces, being the outermost part of the bastion, most exposed to the enemy's battery, is frequently called the salient angle, or point of the bastion.
Angle of the polygon, is made by the concourse of two adjacent sides of a polygon, in the centre of the bastion.

Angle of the triangle, is half the angle of the polygon.

Angle of the shoulder, is made by the angle of the edgels, or face and flank of the bastion.

Angle of the flank, is that which is contained between the curtain and the flank.

Angle of the towailure, is made by two lines Flanking angle, is that which points inwards, or is not well defended.

Angle of the ditch, is formed before the centre of the curtain, by the outward line of the ditch.

Angle re-entrant, is any angle whose bendings are sought, so that points towards the place; that is, whose legs open towards the field.

Salient angle, is that which points outwards, or whose legs open towards the place.

Angle of the complement of the line of defence, is the angle formed by the intersections of the two complements with each other.

Inward flanking angle, that which is made by the flanking line and the curtain. See Angles.

Names of the solid works of a Fortification.

Advanced-foul, or ditch, made at the breach, half the length of the glacis: it is but very seldom made, because it is easily taken, and serves for a trench to the besiegers.

Appareille, is in that slope or easy ascent which leads to the platform of the bastion; or to any other work, where the artillery, &c. are brought up and carried down.

Approaches, are a kind of roads or passages sunk in the ground by the besiegers, whereby they approach the place under cover of the fire from the garrison.

Area, the superficial content of a rampart, or other work.

Arrow, is a work placed at the salient angle of the glacis, and consists of two parapets, each about 20 fathoms long, and 9 feet high when double, and 15 when single, and about 3 feet broad, and 43 feet lower than the parapet.

Bastile, is a part of the inner closure of a fortification, making an angle towards the field, and consists of 2 faces, 2 flanks, and an opening towards the centre of the place, called the gorge; or in other large mass of earth, usually faced with sods, sometimes with brick, but rarely with stone; having the figure described.

With regard to the first invention of bastions, there are many opinions amongst authors. Some have attributed this invention to Ziska, the Bohemian; others to Achmet Basalow, who having taken Otranto in the year 1480, fortified it in a particular manner, which is supposed to be the first instance of the use of bastions. Those who wrote on the subject of fortification 200 years ago, seem to suppose, that bastions were a material improvement in the ancient method of building, rather than a new thought, that any one person could claim the honor of. It is certain, however, that they were well known soon after the year 1500; for in 1480 Tartesia published "Quarto et Inventionem deseuse," in the 6th book of which he mentions, that whilst he resided at Verona (which must have been many years before) he saw bastions of a prodigious size: some finished, and others building; and there is besides, in the same book, a plan of Turin, which was then fortified with 4 bastions, as it seems to have been completed some time before.

The great rule in constructing a bastion is, that every part of it may be seen and defended from some other part. Mere angles are therefore not sufficient, but flanks and faces are likewise necessary. The faces must not be less than 20 fathoms; nor more than 30. The longer the flanks are the greater the advantage which can be derived from them. They must therefore stand at right angles with the line of defence. At the same time the disposition of the flanks makes the principal part of a fortification, as on them the defence chiefly depends; and it is this that has introduced the various kinds of fortifying.

The angle of the bastion must exceed 60°; otherwise it will be too small to give room for the guns, and will either render the line of defence too long, or the flanks too short. It must therefore be either a right angle or some intermediate one between that and 60 degrees. Full bastions are best calculated for intrenchments, which are thrown up at the gorge, or by means of a cavalier, whose faces are made parallel to those of the bastion at the distance of 15 toises; having its flanks at the distance of 22 toises, and a ditch measuring 4.
bastion being considered the weakest part of the body of a place, is always attacked; when there is room for troops, cannon and mortars, its natural weakness is greatly remedied.

Gorge of a bastion, the interval between the extremity of one flank and that of the next.

Flat bastion. When a bastion upon a right line is so constructed, that its demi-gorges do not form an angle, it is called a flat bastion.

Gorge of a flat bastion, is a right line, which terminates the distance between two flanks.

Solid bastion, is that which is raised from the ground within is much lower than the rampart, that is, when the inside is quite level, the parapet being only more elevated than the rest. Solid bastions have this advantage over others, that they carried earth enough to make a retrenchment, in case the enemy lodge themselves on the top of the bastion, and the besieged are resolved to dispute every inch of ground.

Hollow bastion, is that where the
Empty bastion, is level ground within is much lower than the rampart, or that part next to the parapet, where the troops are placed to defend the bastion. The disadvantage of these kinds of bastions is, the earth being so low, that when an enemy is once lodged on the rampart, there is no making a retrenchment towards the centre, but what will be under the fire of the besiegers.

Detached bastion, is that which is separated or cut off from the body of the place, and differs from a half moon, whose rampart and parapet are lower, and not so thick as those of the place, having the same proportion with the works of the other side. Counter-guards with flanks are sometimes called detached bastions.

Cut bastion, is that whose salient angle or point is cut off, instead of which it has a re-entering angle, or an angle inward. It is used, either when the angle would, without such a contrivance, be too acute, or when water, or some other impediment, prevents the bastion from being carried to its full extent.

Composed bastion, is when two sides of the interior polygon are very unequal, which also renders the gorges unequal; it may not improperly be called a forced bastion, being as it were forced into that form.

Deformed bastion, is when the irregularity of the lines and angles causes the bastion to appear deformed, or out of shape.

Demi-bastion, is composed of one face only, has but one flank, and a demi-gorge.

Double bastion, is that which is raised on the place of another bastion, but much higher, leaving 14 or 16 feet between the parapet of the lower, and the foot of the higher; and is sometimes in the nature of a cavalier.

Regular bastion, is that which has its true proportion of faces, flanks, and gorges.

Irregular bastion, is that wherein the above equality of just proportion is omitted.

Barrier, in fortification, a kind of rails to stop the horse or foot from rushing in upon the besieged with violence. In the middle of this kind of defence there is a movable bar of wood, which opens or shuts at pleasure.

Rome is a little space or path, of 4 to 8 feet broad, between the ditch and the talus of the parapet; it is to prevent the earth from rolling into the ditch, and serves likewise to pass and repass. As it is in some degree advantageous to the enemy, in getting footing, most of the modern engineers reject it.

Bouquet, in fortification, is a sort of work placed before the salient angle of the ravelin to cover it; it consists of 2 faces parallel to the ravelin, or perpendicular to those of the lunette. They are generally made 10 fathom broad at the ends with a ditch of the same breadth, the covert-way 6, and the glacis 20 fathoms.

Breach, is an opening or gap made in a wall or rampart, with either cannon or mines, sufficiently wide for a body of troops to enter the works, and drive the besieged out of it.

Practical breach, is where men may mount, and make a lodgment, and should be 15 or 20 feet wide.

Capital of a work, is an imaginary line which divides that work into two equal parts.

Capital of a bastion, a line drawn from the angle of the polygon to the point of the bastion, or from the point of the bastion to the centre of the gorge. These capitals are from 35 to 40 toises in length, from the point of the bastion to the place where the two demi-gorges meet; being the difference between the exterior and the interior radius.

Caponier is a passage made in a dry ditch from one work to another; when it is made from the curtain of the body of the place to the opposite ravelin, or from the front of a horn or crown-work, it has a parapet on each side, of 6 or 7 feet high, sloping in a glacies of 10 or 12 toises on the outside to the bottom of the ditch; the width within is from 20 to 25 feet, with a banquette on each side; there is a brick wall to support the earth within which only reaches within 1 foot of the top, to prevent grazing shot from driving the splinters amongst the defendants.

Caponieres with two parapets may properly be called double; as there are some made with one rampart only, in dry ditches of the ravelin, and in that of,
its redoubt, towards the salient angles, and to open towards the body of the place.

*Caponiers*, made from the body of the town, side-works, are sometimes arched over, with loop-holes to fire into the ditch. The single ones in the ditch of the ravelin and redoubt are likewise made with arches open towards the place; for by making them in this manner, the guns which defend the ditch before them, cannot otherwise be dismounted than by mines.

*Counterforts*, in fortification, a kind of cellar placed under the capital of a fortification; also subterraneous passages or galleries to discover the enemy's mines.

*Counterforts*, in fortification, are a work made under the rampart, like a cellar or cave with loop-holes to place guns in it.

*Counter-guards* are works, raised generally within the body of the place, 10 or 12 feet higher than the rest of the works. Their most common situation is within the bastion, and they are made much in the same form; they are sometimes placed in their gorges, or on the middle of the curtain, and then are in the form of a horse-shoe, only flatter.

The use of cavaliers is, to command all the adjacent works, and country round them; they are seldom or never made, when there is a hill or rising ground which overlooks some of the works.

*Cavaliers* are works, situated within the body of the place, 10 or 12 feet higher than the rest of the works. Their most common situation is within the bastion, and they are made much in the same form; they are sometimes placed in their gorges, or on the middle of the curtain, and then are in the form of a horse-shoe, only flatter.

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*Centre of the bastion* is that point where the two adjacent curtains produce intersect each other.

*Citadels* are a kind of fort, or small fortification, of 4, 5, or 6 sides; sometimes joined to towns, &c. Citadels are always built on the mostadvantageous ground. They are fortified towards the city, and towards the country; being divided from the former by an esplanade, or open place: and serving in one case to overawe the inhabitants; and in the other, not only to hinder the approach of an enemy, but to become a retreat to the garrison, should the town be taken.

See **Command**.

*Command* is when a hill or rising ground overlooks any of the works of a fortification, and is within reach of common shot; such a hill is said to command that work.

See **Command**.

*Complement of the curtain*, is that part of the interior side which forms the demi-terrace. See **Crown-work**.

*Complement of the line of defence*, is a horn-work with a crown-work before it.

See **Crown-work**.

*Counter-scarp*, is a round projection made of stone, in a semi-circular form, whose diameter is about 1 foot, and goes quite round the wall, and within 4 feet from the upper part.

The cordon being placed on the top of the revetment of the scarp, is a considerable obstacle to the besiegers, when they attempt to storm a place by applying scaling ladders to the scarp.

*Counter-scarp* is a space of five or six toises broad, extending round the counter-scarp of the ditch, and covered by a parapet from six to seven feet and a half high, having a banquette: the superior part of this parapet forms a gentle slope towards the country, which terminates at the distance of twenty to twenty-five toises; this slope is called the place.

Sometimes the covert-way is sunk 2 or 3 feet below the horizon of the field, for, as such works are never made to discover the enemy in their trenches, so this method of lowering the covert-way will give room for the fire of the lower curtain (in works that have one) to scour the esplanade; and the expense of it should be the least material objection against it.

*Counter-forts*, in fortification, are by some called *battery*: they are solids of masonry, built behind walls, and joined to them at 18 feet distance from the centre to centre, in order to strengthen them, especially when they sustain a rampart or terrace.

*Counter-guard* is a work placed before the bastions to cover the opposite flanks from being seen from the covert-way. It is likewise made before the ravelin.

When counter-guards are placed before the collateral bastions, they are esteemed of very great use, as the enemy cannot batter them without having first secured the possession of the counterscarps. They were first invented by Pasino, in 1579, and greatly improved by Speckle, in 1599.

*Counter-scarp* is properly the exterior talus of the ditch, or that slope which terminates its breadth, and is the further side from the body of the place. It is so called from being opposite to the scarp.

*Counter-scarp* is the exterior side of the ditch, or that slope which terminates its breadth, and is the further side from the body of the place. It is so called from being opposite to the scarp.

*Counter-scarp* is properly the exterior talus of the ditch, or that slope which terminates its breadth, and is the further side from the body of the place. It is so called from being opposite to the scarp.

See **Crown-work**.
and much better. The crown-work is adopted for the same purposes as the horn work.

Crown-work, is a horn-work with a crown-work before it. See Crown-work.

Curtain, in fortification, is that part of the body of the place, which joins the flank of one bastion to that of another. The straight curtains have always been preferred to the different designs which have been proposed, of which some have diminished the expense, and (at the same time) the strength of the place; others have somewhat augmented the strength, but greatly diminished its area.

Cunette, in fortification, is a small ditch from 15 to 20 feet broad, made in the middle of a large dry ditch, serving as a retrenchment to defend the same, or otherwise to let water into it, when it can be had during a siege. When there is a cunette, there should be a caponniere to flank it.

Defilement, in fortification, is the art of disposing all the works of a fortress in such a manner, that they may be commanded by the body of the place. It also includes the relative disposition of the works, and the ground within cannon shot, so that the one may be discovered, and the other not observed.

Descents, is half the gorge, or entrance into the bastion, not taken directly from angle to angle, where the bastion joins the curtain, but from the angle of the flank to the centre of the bastion, or rather the angle the two curtains would make were they protracted to meet in the bastion. Mr. Landmann determines it to be the line which is formed by the prolongation of the curtain meeting the oblique radius.

Demi-lune. See Raoulin.

Descents in fortification, are the holes, vaults, and hollow places made by undermining the ground.

Descents into the ditch or fosse, are byaux or trenches excavated by the means of saps in the ground of the counterscarp, under the covert way. They are covered with mudiers, or hurdles, well loaded with earth, to secure them against fire. In ditches that are full of water, the descent is made even with the surface of the water; and then the ditch is filled with fagots, fast bound, and covered with earth. In dry ditches the descent is carried down to the bottom; after which, traverses are made either as ledgments for the troops, or to cover the miner. When the ditch is full of water, the descent must be made over its surface; which is done by securing it with bunds or chantelets, from being embalmed, or by directing the course of the descent from the point of embalmed in the best way you can.

Detached bastion. See Bastion.

Detached redoubt. See Redoubt.

Ditch, in fortification, is a large deep trench made round each work, generally from 12 to 22 fathom broad, and 15 to 16 feet deep: the earth dug out of it serves to raise the rampart and parapet. Almost every engineer has a particular depth and breadth for ditches; some are for narrow ones and deep, others for broad ones and shallow; and it is most certain that ditches should be regulated according to the situation. In regard to wet and dry ditches, almost all authors have given it in favor of the latter; and we shall only add, that the best of all are those which can either be filled or kept dry at pleasure.

Wet ditches, which have stagnant waters, are liable to great inconveniences. They are said to be well calculated to prevent sudden surprises and assaults; but we are convinced of the contrary, especially during a hard frost. Some again assert, that they stop all communication between ill-disposed persons in the garrison and the besiegers. Every man with the least experience, must be of a different opinion.

Wet ditches might certainly be so constructed, as to let the surface of the water remain 12 or 15 feet above the level of the adjacent country. In which case they would serve as large reservoirs, and not only contribute to the defence of a fortified place, but enrich the grounds by flowing, might in some degree compensate for the expense of the fortification. During a siege, these waters, with proper management, must give considerable uneasiness to the enemy that invests the place.

To answer this double purpose, the ditch must be separated into several large bascons, which might be filled or emptied at discretion, as often as circumstances would require.

Dry ditches. There are some ditches which may be filled at will; and others which cannot, except by extraordinary means. If they should be intended to answer the purpose of agriculture, aqueducts might be constructed, or the waters poured in through artificial channels. In which case the ditches would not require much depth. The placis might be raised in such a manner as to serve to dam in the body of water, and to afford a second glacis from whence the besieger might be considerably embarrassed.

Ditches that are lined, ditches whose counterscarp is supported, and kept up by a stone of brick wall.

Ditches that are not lined, whose counterscarp is supported by earth covered with soils. These ditches are not so secure as the former, on account of the breadth which must be given to the talus, and by which an enemy might easily surprise a place.
So that ditches in fortification may be briefly distinguished under three separate heads, viz:  

Dry ditches, which from the facility with which they may be repaired, and their capability of containing other works proper for that security, are in most instances preferable to any others.

Wet ditches are those parts where the part is made, which produce an angle pointing into the ditch, sometimes like a curved line, as to admit water occasionally into the different basions by means of aqueducts, and be drained, as circumstances may require.

Dry ditches which are terminated by a flank.

Flank of the bastion, is the part between the face and the curtain; the flank of one bastion serves to defend the ditch before the curtain and face of the opposite bastion.

Flanking is the same thing in fortification as defending.

Recessed flanks are those made behind the line which joins the extremity of the face and the curtain, towards the capital of the bastion.

Concave flanks, are those which are made in the arc of a circle.

Direct or graving flank, is that which is perpendicular to the opposite face produced, and oblique or slanting, when it makes an acute angle with that face.

Second flank. When the face of a bastion produced does not meet the curtain at its extremity, but in some other point, then the part of the curtain between that point and the flank, is called the second flank.

Modern constructors have rejected this method of fortifying. See Flank.

Ditch, a work of two faces, often constructed before the place of a fortified place, when threatened with a siege, in order to keep the enemy as long at a distance as possible.

Gallery, is a passage made underground, leading to the mines: galleries are from 1 to 2 to 5 feet high, and about 3.2 or 4 feet broad; supported at top by wooden frames, with boards over them.

Gorge, of any work, is that part next to the body of the place, where there is no rampart or parapet; that is, at the counterscarp of the ditch.

Half-moon. (Fr. Demi-Lune.) Is an out-work that has two faces which form a salient angle, the gorge of which resembles a crescent. It owes its original invention to the Dutch, who use it to cover the points of their bastions. This kind of fortification is, however, defensive, because it is weak on its flanks.
which species of work is constructed in front of the curtain. See Ravelins.

**Carne of a half-moon.** The distance between the two flanks, taken on the right of the counter-scarp.

**Half-work.** One of the fronts next the enemy, and farthest from the place.

**Horn-work.** Is composed of a front and 2 branches: the front is made into 2 half bastions and a curtain: This work is of the nature of a crown-work, only smaller, and serves for the same purposes.

The use of horn-works in general is to take possession of some rising ground advanced from the fortification: the distance of which determine that of the horn-work; and they are placed either before the curtain, or before the bastions, according to circumstances.

**Horse-tower.** Is a small round or oval work, with a parapet, generally made in a ditch, or in a marsh.

**Insula.** A work is said to be insulaed, when it is attacked suddenly and openly.

**Concrete front of a fortification.** An imaginary line drawn from the centre of one bastion to that of the next, or rather the curtain produced till they meet.

**Lodgment.** See Siege.

**Lop-sides.** Are either square, or oblong boxes, made in the wall, to fire through musquets. They are generally 8 or 9 inches long, 6 or 7 inches wide with musquets, and 2 or 3 feet without; so that every man may fire from them direct in front, or oblique to right or left, according to circumstances.

**Lanettes in fortification.** Are works made on both sides of a ravelin; one of their faces is perpendicular to half or 2-thirds of the faces of the ravelin, and the other nearly so to those of the bastion.

There are likewise lanettes, whose faces are drawn perpendicular to those of the ravelin, within 1-3 part from the salient angle; whose semi-gorges are only 2 fathoms.

These kind of works make a good defence, and are of no great expense; for as they are so near the ravelin, the communication with it is very easy, and one cannot well be maintained till they are all three taken.

**Lanettes.** Are also works made beyond the second ditch, opposite to the places of arms; they differ from the ravelins only in their situation.

**Lanettes.** Are small lanettes.

**Merlon.** Is that part of the breast-work of a battery which is between the embrasures.

**Orlèans.** Is a part of the breast-work near the shoulder, which serves to cover the retired flank from being seen obliquely: it sometimes faced with stone, on the shoulder of a casemated bastion, to cover the cannon of the retired flank, and hinder them from being dismounted by the enemy's cannon.

Of all the works in a fortification, there is none more capable of defending the parapet of the ditch, and to destroy the miner, wheresoever he enters himself, than the orlèans. Experience in the late war has shewn us of what vast advantage it is to have 2 or 3 reserve pieces of cannon, which command the ditch, and the face of the opposite bastion, in such manner as to destroy the attempts of the miners, and see the breach in reserve. Hence the great advantages of a double flank thus concealed weigh so very much with us, and convince us so entirely of their usefulness, that we affirm no place to be well fortified without the orlèans, and that this eight flank is fit for nothing but field works.

The orlèans is as old as the bastion, and was first made use of about the year 1360, and we find it frequently mentioned in the works of Pasino and Speckle, first published in 1379.

**Out-works.** See Works.

**Pallisades, in fortification.** Are a kind of stakes made of strong spars about 9 feet long, fixed 3 deep in the ground, in rows about 6 inches asunder: they are placed in the covert-way, at 3 fathoms from, and parallel to the parapet of the glacis, to secure it from being surprised.

**Parapet.** In fortification, is a part of the rampart of a work, 18 to 20 feet broad, and raised 6 or 7 feet above the rest of the rampart: it serves to cover the troops placed there to defend the work against the fire of the enemy.

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**Parapet, in fortification.** Is a part of the covert-way, opposite to the re-entering angle of the counterscarp, projecting outward in an angle. It is generally 20 fathoms from the re-entering angle of the ditch on both sides, and the faces are found by describing a radius of 25 fathoms.

**Place of arms.** See Siege.

**Place of arms.** See Siege.

**Pits, or ponde.** In fortification, are little holes dug between the higher and lower curtains, to hold water, in order to prevent the passing from the tenailles to the flanks.

**Profile.** In fortification, are a representation, of the vertical sections of a work; and serve to show those dimensions which cannot be described in plans, and are yet necessary in the building of a fortification; they may be very well executed and constructed upon a scale of 30 feet to an inch. By a profile are expressed the several heights, widths, and thicknesses, such as they would appear were the works cut down perpendicularly from the top to the bottom. See Profiles.
Rampart, in fortification, is an elevation of earth raised along the faces of any work, 10 or 15 feet high, to cover the inner part of that work against the fire of an enemy; its breadth differs according to the several systems upon which it may be constructed: for De Ville makes them 22 to 24 fathoms, M. Vauban 6, and others 20 fathoms.

Ravelins, in fortification, are a kind of low work made in the ditch, of a circular arc; they were first invented by Mr. Belidor, and serve instead of tenailles.

Ravelin, in fortification, is a work placed before the curtain to cover it, and prevent the flanks from being discovered sideways; it consists of 2 faces meeting in an outward angle. Some ravelins are countersunk, which renders them as serviceable as either the lunlets, or tenailles.

Gorge of the ravelin, is the distance between the two sides or faces towards the place.

Gorges, of all other outworks, are the intervals or spaces which lie between their several wings or sides towards the main ditch. See Gorges.

Redoubts, in fortification, are a sort of indented works, consisting of lines or facings that form sallying or re-entering angles, flanking one another, and are generally used on the sides of a river running through a garrisoned town. They were used before bastions. Sometimes the parapet of the covert-way is carried on in this manner.

Redoubt, is a kind of work placed beyond the glacis, and is of various forms. Its parapet, not being intended to resist cannon, is only 6 or 8 feet thick, with 2 or 3 banquets. The length of the sides may be from 10 to 20 fathoms.

Redoute, is also the name of a small work, made sometimes in a bastion, and sometimes in a ravelin, of the same form. Redoute is likewise a square work without any bastions, placed at some distance from a fortification, to guard a pass or to prevent an enemy from approaching that way.

Detached-redoute, is a kind of work much like a ravelin, with facings placed beyond the glacis: it is made to occupy some spot of ground which might be advantageous to the besiegers; likewise to oblige the enemy to open their trenches farther off than they would otherwise do. Their distance from the covert-way should not exceed 10 toises, that it may be defended by musquet shot from thence.

Redoute-en-crenailles, so called from their similitude to a saw; the inside line of the parapet being broken in such a manner, as to resemble the teeth of a saw; whereby this advantage is gained, that a greater fire can be brought to bear upon the defile, than if only a simple face was opposed to it, and consequently the passage is rendered more difficult.

Renforcement, in fortification, is any work raised to cover a post, and fortify it against an enemy, such as fascines loaded with earth, sand-bags, &c.

Retranchment, in fortification, is a strong wall built on the outside of the rampart and parapet, to support the earth, and prevent its rolling into the ditch. When the retrenchment of a rampart goes quite up to the top, 4 feet of the upper part is a vertical wall of 6 feet thick, with a square stone at the top of it, projecting about 5 or 6 inches, and a circular one below, of where the slope begins, of 8 or 10 inches diameter. They go quite round the rampart, and the circular projection is called the cordeau.

Rideau, in fortification, is a small elevation of earth, extending lengthways on a plane, and serving to cover a camp, or to give an advantage to a post. They are also convenient for the besiegers of a place, as they serve to secure the workmen in their approaches to the foot of a fortress.

Rideau is also used sometimes for a trench, the earth of which is thrown up on its sides, to serve as a parapet for covering the men. See Saps.

Scarp, is, properly speaking, any thing high and steep, and is used in fortification to express the outside of the rampart of any work next to the ditch.

Siloam, in fortification, a work raised in the middle of a ditch to defend it when too broad. This work has no particular construction, but as it runs, forms little bastions, half moons, and redans, which are lower than the rampart of the place, but higher than the covert way. It is not much used at present.

Siloam means literally a furrow. In fortification, it is a work raised.

Goullete-s-til, a kind of out-work, only differing from a single tenail, in that its sides are not parallel as those of the tennail, but narrower towards the town than towards the country.

Talis signifies a slope made either on the outside or inside of any work, to prevent the earth's rolling down; it is of various denominations, viz.

Talas of the banquette is that gentle slope from the top of the banquette to the horizontal line.

Interior talas of the parapet, the slope from the top of the parapet to the bannquettes.

Talas of the top of the parapet, that slope which lessens the height of the parapet towards the berm, by which means the troops firing from the banquette can defend the covert way.

Exterior talas of the parapet, the slope of the parapet from the top to the berm.

Talas of the berm, the slope from the top of the ditch to the bottom, within.

Tenail is a low work made in the ditch before the curtain, of which there are three sorts. The first are the faces of the bastion produced till they meet,
but much lower; the second have faces, flanks, and a curtain; and the third have only faces and flanks. Their height is about 2 or 3 feet higher than the level ground of the ravine; and especially the ditch before the redoubt within the ravine, which cannot be defended any other quarter so well as from them.

Fortifications are works made on each side of the ravine, much like the lunettes; with this difference, that one of the faces in a traverser is in the direction of the ravine; whereas that of the lunette is perpendicular to it.

Tower bastions are small towers made in the form of bastions; first invented by M. Vauban, and used in his second and third method, with rooms or cellars underneath, to place men and artillery in them. As these towers are almost a solid piece of masonry, they must be attended with great care; though their resistance can be but little, for it has been found by experience, that the casemates are but of little use, because as soon as they have fired once or twice, the smoke will oblige the defenders to leave them, more than the smoke in the sallies holes; hence it may be concluded, that the strength of these tower bastions does not mean to answer their expectation; and that, if small bastions were made instead of them, without casemates, they would be much better, and less expensive.

Traditores, in fortification, signifies the concealed or hidden guns in a fortification, behind the reverse of the obilon.

Traverses, in fortification, is a parapet, made across the covert way, opposite to the salient angles of the works, and near the places of arms, to prevent entanglements; they are 18 or 20 feet thick, and as high as the ridge of the glacis. There are also traverses made in the casemates, but then they are called tambours.

2. It is likewise made with various grounds from whence the interior parts of these works may be observed. Traverses that are made to cover the entrances of redoubts in the field, need not be above 6 or 10 feet thick.

3. A small door in the gat of a fortified place, at which a man on foot may go in, and which may be opened though the gate itself be kept shut.

4. The works of every part should always be within the reach of musket shot, that is, from 150 to 160 feet; so as to be defended both by small-arms and small fire-arms; for if it be not so defended by cannon, the enemy may damage the places by the superiority of theirs; and then its defence will be destroyed at once.

5. All the defences should be as nearly direct as possible; for it has been found by experience, that the soldiers are too apt to fire directly before them, without troubling themselves whether they do execution or not.

6. A fortification should be equally strong on all sides; otherwise the enemy will attack it in the weakest part, whereby its strength will become useless.

7. The more acute the angle at the centre, the stronger will be the place.

8. In great places, dry ditches are preferable to those filled with water, because sallies, reterces, suctors, &c., are necessary; but, in small fortresses, wet ditches, that can be drained, are the best, as standing in need of no sallies.

Field Fortification is the art of constructing all kinds of temporary works in the field, such as redoubts, field forts, star forts, triangular and square forts, heads of bridges, and various sorts of lines, &c. An army entrenched, or fortified in the field, produces, in many respects, the same effect as a fortress; for it covers a country, supplies the want of numbers, stops a superior enemy, or at least obliges him to engage at a disadvantage.

The knowledge of a field engineer being founded on the principles of fortification, it must be allowed, that the art of fortification is as necessary to an army in the field, as in fortified places; and though the maxims are nearly the same in both,
yet the manner of applying and executing them with judgment, is very different.

A project of fortification is commonly the result of much reflection; but in the field it is quite otherwise: no regard is to be had to the solidity of the works; every thing must be determined on the spot; the works are to be traced out directly, and regulated by the time and number of workmen, depending on no other materials than what are at hand, and having no other tools than the spade, shovel, pick-axe, and hatchet. It is therefore in the field, more than any where else that an engineer should be ready, and know how to seize all advantages at first sight, to be fertile in expedients, inexhaustible in inventions and indefatigably active.

Quantity and quality of the materials which are required in the construction of field fortifications.

1. Every common fascine made use of in the construction of field works or fortifications, should be 10 feet long and 1 foot thick. A fascine is raised by means of 6 pickets, which are driven obliquely into the earth, so that they together form the shape of a cross. These pickets are tied with willows, or birch twigs. It is upon supporters or trellis of this kind, that fascines are made, which are properly fagots bound together with rods, at intervals of 1 foot each in breadth. Six men are required to complete each fascine; viz. 2 to cut the branches, 2 to gather them up, and 2 to bind the fascines. Six men may with great ease, make 12 fascines in an hour. The smaller sort of willows, or birch twigs, are best calculated for this work. The fascines are fastened to the parapet, which would otherwise crumble and fall down. This work is not of great value.

2. There must be 5 pickets for each fascine, and each picket must be 3 or 4 feet long, an inch and a half thick, and sharp at one end; they serve to fasten the fascines to the parapet. The fascines must be sharpened at one end. They must be 8 feet long, and 1 foot thick. The fascines, the parapet must be covered with them, they must be sharpened at one end; they serve to fasten the fascines to the parapet.

3. When you cannot procure wood for the fascines, the parapet must be covered or clothed with pieces of turf, 6 inches thick, and a foot and a half square; these are fastened to the parapet with 4 small pickets 8 inches long.

4. The franes, or pointed stakes, must be 6 feet long, 3 inches thick, and sharp at the top. The beams upon which they are laid, must be 12 feet long and 6 inches thick. These beams are laid horizontally along the parapet, and franes are fixed to them, with nails 7 inches long; after which the beams are covered with earth. Two men will make 12 franes in an hour.

5. The palisades, by which the ditch of a work is fortified, must be 3 or 5 feet long, and 6 inches thick; they must, likewise, be sharpened at the end. If you cannot procure them of these dimensions, you must use smaller ones; in which case you will have the precaution to mix a few large stakes.

6. The pickets, which are fixed in front of the palisades or walls, must be 6 feet long, 4 inches thick, and sharp at the top.

7. The beams belonging to a chêneaux-de-faîte, must be 12 feet long, and 6 inches thick, and placed at the distance of 6 inches from each other. These chêneaux-de-faîtes are made use of to break up the entrances into redoubts, to close passages or gates, and sometimes they serve to obstruct the fosses.

8. Gabions are constructed of various sizes. Those which are intended for field works, must be 3 or 4 feet high, and contain 2 or 3 feet in diameter. These gabions are made use of in embasures. They are fixed close to each other, and are afterwards filled with earth. There are also gabions of one foot, with 12 inches diameter at the top, and 9 at the bottom. The bank of the parapet is lined with gabions of this construction, p. a hand which troops may be stationed, so as to fire under cover through the intervals. A quantity of large wooden mallets, rammers, hatches, axes, and grappling irons, is required for this work.

Names of all works used in field fortification.

• Bridge-beat, or tête de pont, are made of various figures and sizes, sometimes, like a roilan or ravine, with or without flanks, sometimes like a horn or crown work, according to the situation of the ground, or to the importance of its defence. Their construction depends on various circumstances: for, should the river be so narrow, that the salient angle cannot be well defended across the river, flanks must be added to the roilan; but should a river be 100 toises, or more across, half a square may be made, whose diagonal is the river side; and where the river is from 3 to 50 toises broad, a horn, or crown work should be made. All the different sorts of heads of bridges, are to be esteemed as good works against a sudden onset only, and their use is almost momentary, as they sometimes serve but for a few days only, and at most during a campaign.

• Dams are generally made of earth, but sometimes of other materials, as occasion may require: their use is to contain water.

• Flete a work consisting of two feet.
terminating in a salient angle of 90°, the faces are generally 7 or 80 feet long, the parapet 6 feet thick, and the ditch 7 feet broad.

**Forts.** In field fortification, are of various sorts, viz.

**Field forts** may be divided into two kinds: the one defending itself on all sides, as being entirely surrounded; the other, bordering on a river, &c. remain open at the gorge. They have the advantage of redoubts, in being flanked, and the disadvantage in containing less within, in proportion to their extent.

**Scarc forts** are so called, because they resemble that figure. They were commonly made of 4 angles, sometimes of 5, and very rarely of 6; but we find them now made of 7 and 8 angles. Let their figure however, be what it will, their angles should be equal; if formed of equilateral triangles, so much the better; for then the flanking angle being 120°, the fire cross better and nearer; and as the subscriber being 120°, the fire cross better and nearer; and as the

sides, as being entirely surrounded; the

to fire obliquely on them; since there is

faces are generally 75, or 60 feet long, the

made of 4 angles, sometime of

in proportion to their extent. 6th. That the flanking parts be suf

theclsadvanta&lt;ge in containing less within, attack.

semblc that figure. They were common-

of their parapets at least may rake the whole

open at the gorlc. They have the ad-

slarflcd before the salient angle, is reduced by two branches, forming a saliant angk,

cross better and nearer; and as the

hence in top. Two or three rows

from the ditch of a field-work.

a

work as muci.1 ground as possible, hav-

of whatever form or shape, should be every where equally strong, and alike guarded.

Maxims. 1st. To inclose with the work as much ground as possible, hav

regard to circumstances. This atten

tion chiefly concerns redoubts and small

If there are several works near each other, their lines of defence should be so directed, as to defend each other without being annoyed by their own fire.

3d. Not to depend so on the defence of small arms, but where they can fire at light angles; as they too generally fire without aim, and directly before them.

4th. Not to have recourse to the 2d

flank or fire of the curtain, but when there is an absolute necessity.

5th. That the flanking angle be always a right one, or at least obtuse, but never to exceed 100°, if possible, there being no fear here, as in a fortification, of the flank being too much exposed. Besides, it is not necessary to place the faces, or even to fire obliquely on them; since there is no danger of being exposed to the defence of a breach, or lodgment of the miners. The only thing to apprehend, is a sudden attack.

6th. That the flanking parts be sufficiently extended, so that the interior of their parapets at least may rake the whole breadth of the opposite ditch.

7th. Never to make an advanced ditch in dry ground, unless it can be enfiladed throughout, and under a proper angle be defended by the work which it covers, or surrounds.

8th. Not to allow more than from 60 to 80 toes for the lines of defence, when they proceed from two flanks separated by two branches, forming a saliant angle, or when not made to cross, though produced.

9th. That the parts most extended, and consequently the weakest in themselves, be as much defended as possible, and have at least the fire of two flanks, besides their own direct fire.

Redans are a sort of indented works, consisting of lines and faces, that form saliant and re-entering angles, flanking one another. Lines are often constructed with redans: their salient angles are generally from 50 to 70°.

**Indented redans** are when the two faces are indented, in that case the faces of each indented angle is 8 to 10 feet only.

Tambours, a kind of work, formed of palisades, 10 feet long, and 6 inches thick, planted close together, and driven 2 or 3 feet into the ground; so that when finished it has the appearance of a square redoubt cut in two. Loop-holes are made 6 feet from the ground, and 3 feet upward, for the soldiers to fire through, who are placed on scaffolds 2 feet high. They have often been used by the French with great advantage.

**Tetes-de-pont.** See Bridge-heads.

**Trous-de-loup** are holes dug in the ground, circular at top, about 4 to 6 feet diameter, and 6 feet deep, pointed at bottom, like an inverted cone, or sugar loaf.

A stake six feet long is fixed in their centre, drives 2 feet into the ground, and made sharp at top. Two or three rows of them are dug chequerwise, about 6 paces from the ditch of a field-work. They prevent the approach of horse, &c.

**Perpendicular Fortification.**

The principles of Vauban for direct or horizontal works, are the most perfect of all others: indeed all the masters of the art in modern times, who have introduced anything new, allow that their works
are only improvements of Vauban. The writings of Cormontagne are the most approved of the late writers on military defence. The principles of elevated works to cover naval roads and harbors, is among the improvements on Vauban; the works at Cherbourg, in France, and at fort Columbus, New York harbour, are very happy examples of the power of such works, as well as of the talents of the Engineers who erected them. Those at New York were by Col. Williams of the United States engineer corps.

Subterraneous Fortification.

The consist of the different galleries and branches which lead to mines, to the chambers belonging to them, or to fougasses, and which are required whenever it is found necessary to explode for the purposes of attack or defence. A subterraneous fortification may be of a permanent or temporary construction, offensive or defensive nature. Whenever this sort of work is adopted to strengthen and secure a fortified place, it is generally built of stone or brick, and made sufficiently solid to last a long time; it is then called permanent and defensive. Any place which is put in a state to withstand the subterraneous attacks of a besieging enemy, is said to be countermined.

When the besieger wishes to make an impression on a fortification of this sort, he must first construct galleries which he covers with wood, &c. He then practices offensive and temporary fortifications of the subterraneous sort. These works are well calculated to aid him in securing a lodgment for his subterraneous artillery, and in establishing chambers, fougasses, &c.

With respect to fortification in general, different authors recommend different methods; but the principal are those of Pagan, Blondel, Vauban, Coehorn, Belidor, Scheiter, and Muller. It must, however, be constantly recollected by every engineer, that his views are not to be confined to the mere art of fortification. He ought further to know the use which different generals, in different periods, have made of natural strength and position; without an attention of this sort, he will fall very short of that extensive knowledge, which every military man, who aims at military fame, must be ambitious of acquiring. Chains of mountains, and volumes of water, together with the influence which different climates have upon the latter element, should always constitute a part of the natural system that ought to form an essential portion of his application. Hydriography will likewise assist him in this pursuit. To enlarge upon this important branch of geography, and to point out the great means which it affords of natural defence and offence in fortification, would be to exceed the limits of our present undertaking. We shall, therefore, refer our military readers to Belair's Elements de Fortification, and content ourselves with submitting a short account of the different authors who have either given original systems, or have greatly improved those that were already known. Independent of whom, may be named the following writers, who have likewise contributed to the general knowledge of fortification, viz. Errard Deville, Belidor, D'Alembert, Cormontagne, Folard, Clairac, Muller, Rehson, LeBlond, D'Her, Marshal Saxe, Cugnot, Tielke, Latrobe, Trincano, Fallows, Rosard, Belair, &c.

Fortification, according to the method of Pagan, consists in the different sorts, viz. the great, the mean, and little, whose principal dimensions are contained in the following table:

<table>
<thead>
<tr>
<th>Type of Polygon</th>
<th>Size of Musquet Shot</th>
<th>Size of Mantlet Shot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great</td>
<td>150 toises</td>
<td>175 toises</td>
</tr>
<tr>
<td>Mean</td>
<td>120 toises</td>
<td>150 toises</td>
</tr>
<tr>
<td>Little</td>
<td>90 toises</td>
<td>120 toises</td>
</tr>
</tbody>
</table>

Blondel fortifies within the given polygon: he establishes two sorts of fortification; the great one, whose carried side is 200 toises, and the lesser one 170; because he will not have the lie of defence exceeded 150 toises, which is the greatest musquet shot, nor less than 120 toises, not to increase the number of bastions. He begins by the diminishing angle, which may be found by taking go degrees from the angle of the polygon, and by adding 15 degrees to the third of the remainder.

Vauban's method is divided into little, mean, and great; the little is chiefly used in the construction of citadels; the mean in that of all sorts of towns; and the great, in particular cases only.
In the first vertical column are the numbers expressing the lengths of the exterior sides from 80 to 260.

In the second, the perpendiculars answering to these sides.

In the third, the lengths of the faces of the bastions; and in the fourth, the lengths of the capitals of the ravelins.

Belidor's method is divided also into little, mean, and great; and in all three the exterior side is 200 toises; the perpendicular of the little is 50, that of the mean 55, and the great 40; the faces of the first 70, the second 70, and the third 55 toises.

Scheiter's method is divided into the great, mean, and small sort. The exterior side of the polygon for the great sort is 200 toises, the mean sort 180, and the small 160. The line of defence in the first is 140 toises, the second 130, and the third 120. This line is always rasant.

Errard, of Bois le-Duc, who was employed by Henry IV. and was the first that laid down rules in France respecting the best method of fortifying a place so as to cover its flank, constructs the flank perpendicular to the face of the bastion; but by endeavoring to cover it effectually, he makes the gorges too exiguous, the embrasures too oblique, and leaves the ditch almost defenceless.

The Chevalier de Ville, who succeeded Errard, draws the flank line perpendicular to the curtain; but here again the embrasures are too oblique, especially in the polygons, and the ditch is necessarily ill guarded. This engineer's method of fortifying is styled by most authors the French method. His favorite maxim is to make the flank angle straight, and the flank equal to the demi-gorge.

Count Pagán makes the flank perpendicular to the line of defence, which method seems to agree perfectly with this maxim, because by that means the flank so raised covers as much as possible the face of the opposite bastion; but notwithstanding this apparent advantage the flank becomes too small and is too much exposed to the enemy's batteries.
engineer acquired great reputation during the several sieges which he assisted in conducing under Louis XIII. His system has been improved upon by Alain

Marianne Mallet, and his construction in fortification up to this day esteemed the most perfect. It differs very little from Marshal Vauban's first system. Count

Fagan has pointed out the method of building casemates in a manner peculiar to himself.

Marshal Vauban has judiciously steered between these different methods. He has drawn his flank in such a manner, that it does not stand too much exposed, nor does its collateral line of defence extend too far from the direct line of defence. He has effected this by lengthening out his flank and giving it a circular form.

It cannot be disputed but that large and extensive flanks and demi-gorges are superior to narrow and confined ones. The more capacious the flank is, the better calculated will it prove for the disposition of a formidable train of artillery. From this conviction many writers in their proposed systems of fortification, have added a second flank, in order to augment the line of defence; but they did not foresee, that this second flank is not only incapable of covering the face of the opposed bastion, except in a very oblique and insecure direction, but that the right flank, or the flank of the bastion, is thereby more exposed to the enemy's batteries, which, it must be acknowledged, is a great fault.

The prevailing system of the present day is to make the flanks of the bastion as wide as possible, without having recourse to a second flank; unless it be absolutely necessary. Those gorges are likewise best which are more capacious, because they afford space and ground in the bastion for the construction of intrenchments within, should the enemy have effected a practicable breach.

All parts of a fortification which stand exposed to the immediate attacks of a besieging enemy, must be strong enough to bear the boldest attempt, and the most vigorous impressions. This is a self-evident maxim, because it must be manifest to the most common understanding, that works are erected round a place for the specific purpose of preventing an enemy from getting possession of it. It consequently follows, that flanked angles are extremely defective when they are too acute, since their points may be easily flanked and destroyed by the besieger's cannon.

The Dutch construct at sixty degrees; but according to Vauban's method, no work should be under seventy-five degrees, unless circumstances and situation should particularly require it.

A place to be in a state of defence, should be equally strong in all its relative directions; for the enemy would of course make the work part his object of attack, and finally succeed in getting possession of the town. The body of the place must have a command towards the country, and no quarter in the outward vicinity of it must overlook, or command either the place itself, or its outworks. Those works which are nearest to the centre of the place, must have a greater elevation than the more distant ones.

The first regular system of fortification which appeared and was adopted in France, owed its origin to Errard of Bois-le-Duc, whom we have just mentioned. His method, however, has been uniformly rejected by able engineers; and if we may give credit to the report of Ozanan, Errard himself never carried his own system into practice.

Next to Errard of Bois-le-Duc, came the Chevalier Antoine de Ville, who was engineer under Louis XIII, and published an excellent treatise upon fortification. His method is stiled by most authors, the French method. Others call it the Composite System, or Systeme a trois Composes, because it united the Italian and Spanish methods. He was, indeed, by no means an advocate for new systems; for he generally observed, that any new method, or invention was extremely easy, so long as it was confined to the mere insertion of something in the measure, or in the disposition of those parts of fortification which have been discussed by other authors.

The Count de Pagan followed after, and had the good fortune to propose a system entirely superseded the other two. We have already mentioned the principal feature, in his method.

Marshal Vauban, whose reputation rose upon the manifest superiority which his skill gave him over all others that had written upon fortification, likewise proposed three methods, with considerable improvements; viz. The great, the middle, and the slide.

The great method, according to Vauban, contains on its exterior side from 200 to 225, or 240 toes. This extent is not uniformly the same throughout all the sides of a place, but is confined to that side which lies along the banks of a river, where he uniformly erects considerable outworks.

Vauban made use of his second method in fortifying Béfourt and Landau. On account of the bad local situation of Béfourt, and the impossibility of fortifying it with common bastions that would not be exposed to an enfilade in almost every direction, in spite of the traverses or redoubts which might be made; he invented arched bastions that were bomb proof, which he called tours bastionnes, or tours with bastions. These arched bastions are covered by counter-guards, the height of whose parapet almost equals the elevation of the towers themselves. Although strictly speaking, both these places are irregularly fortified, nevertheless a method
of regular defence may be established from the construction of their works.

Vauban's third system grows out of the second; and for that reason it is called order renfermé, the reinforced order or method. It was adopted in the fortifications of New Bresie. Vauban left nothing untried to bring this system to perfection, and he had the ingenuity to execute his plan at a less expense than it would otherwise have been effected, by means of half revetments which he threw up in the outward works called the dehors. To this end he directs, that a gallery is erected for the musquetry, or less than 120 toises, to render his defence or attack more formidable. He has likewise invented a new method for the defence of small places, which is preferable to the first, although it is not without faults. According to his system, the reach of the musquet is taken from the centre of the curtain. To this end he directs, that a covert lodgment, 7 feet high, and 10 toises wide, be constructed from that to the gorge of the half moon or ravelin. Cannon is disposed along the face, and a gallery is erected for the musquetry, which likewise serves as a passage to the ravelin.

Francis Marchi, a gentleman of Bologna, in his folio edition, has furnished us with upwards of 100 different methods of constructing fortifications.

The Dutch uniformly pursue the system published by Marcolis. Bombelle has likewise established three sorts of fortification, the great royal; grand royal; the mean; and the little royal, petit royal. His method agrees with the sound maxims of good fortification much more than any of the preceding ones.

Blondel has published a system of fortification, which he divides into two principal heads; the great, whose exterior side contains 200 toises, and the little, where the side does not exceed 170 toises. His reason is, because he objects to the line of defence having more than 120 toises, which is the furthest reach of musquetry, or less than 120 toises, to prevent an unnecessary increase of bastions. The principles of Blondel's system resemble, in a great degree, those upon which Pagan's is founded, and chiefly consist in methods of fortifying inward posts. The invention has certainly great merit, but its author must prove expensive in all its practical branches. It must, moreover, be manifest, that the four long batteries which are supported by banks of his construction, must serve as so many scaling ladders, or steps to the besiegers, the instant they have effected a breach by cannon shot, or shells.

In 1669, a work was published, entitled:

_Nouvelle manière de fortifier les places, tirée de méthodes du Chevalier de Ville, du Comte de Pagan, et de M. de Vauban; avec des remarques sur l'ordre renfermé, sur les dessins du Capitaine Maréchal, et sur ceux de M. Blondel_. This work is full of strong reasoning, from the result of which the author has formed a new method, containing indeed, nothing original, but giving references to what has already appeared, and disposing the different parts in so judicious a manner, as to shew how a place may be defended in the same time to a less expense. This writer divides fortification into three parts, the great, the mean, and the little.

There is a second and a third method proposed anonymously, and containing mere simple designs. That method in which a modern author gives it the preference over the system of New Bresie, contains little useful information, and contributes less to the real art of fortifying places.

Donato Rosetti, a Canon belonging to Liveurnia, professor of mathematics in the academy at Piedmont, and mathematician to the Duke of Savoy, has written upon a method of constructing works in which he calls fortification a ramifier, or fortification in reverse; so called not only because the re-entering angle of the counter-scarp is opposite to the flanked angle: but because, in his idea, it will be necessary to attack it from the reverse side of other works. His system is very simple, and does not require a sacrifice of much money, or stand in need of many men to defend the works: although he
can, on his side, pour as much fire upon the enemy, as could be furnished by more complicated methods.

Antonio de Herbart, major of artillery, in the Duke of Wurtemberg's service, in 1735, published a treatise on fortifications with square angles, which he calls angular polygons.

Monte de Montalbemert has lately endeavored to bring arches, which are so much condemned by the Chevalier de Ville, into repute. He treats the subject in a manner, and upon principles so similar to those proposed by Antonio de Herbart, that it is almost impossible to separate the two systems. M. de Montalbemert asserts, that the science of fortification, (as it is established and taught at present) can only be valued by the public on account of its illusion. He looks upon the use of bastions, as the effect of prejudice; he rejects them wholly, and substitutes in their room, a front of angular tetractys, polygons with small wings, and angular polygons. The engineers of the present day assert with confidence, that the chief security to be derived in works that are supported by bastions, must depend upon cross and reverse firing directed against the enemy's lodgments on the glevs. Large half-moons are made, not only for the purpose of covering the curtains and the flanks of bastions, but principally to obtain a reverse firing, which effectually prevents the enemy from maintaining his ground on the glacis of a bastion, before he has taken the two collateral half-moons.

M. Minno, Baron of Coehorn, who was general of artillery in the Dutch service, lieutenant-general of infantry, director-general of all the fortified places belonging to the united provinces, and governor of Flanders and all the fortresses that lay along the Schelde, has been justly esteemed for his extensive knowledge in the art of fortifying places. He was contemporary with Vauban. This intelligent and sagacious officer was thoroughly convinced, that, however extensively the rampart of a town may be constructed, it could not long sustain the shock of heavy ordnance, invented three different systems, by which he throws so many obstacles in the way of a besieging enemy, that although the place be not in reality rendered impregnable, it is nevertheless so far secured to make its conquest a business of considerable hazard and expense. We must however acknowledge, that the three methods which have been pointed out by this Dutch general, can only suit places and grounds that are nearly on a level with the surface of the water; that is to say of 3, 4, or 5 feet, which circumstance plainly indicates, that his attention has been chiefly directed to the soil and ground of Holland; so that his instructions are peculiarly applicable to low and aquatic situations. There is much skill discover-

ed in his manner of treating the subject, and considerable ingenuity in the treatise he has published, which certainly contains several improvements that are exclusively his own. It would be impossible to force a passage, or to penetrate into any of his works, without being exposed on all sides, to the fire of the besieged, who are under cover, and from whose discharge of ordnance and musketry, it is scarcely possible for an installer en my to secure himself.

Scheiter, a German writer, describes two kinds of fortifications, the great or the superior, and the small or the inferior species. It has been erroneously and unjustly stated, that the celebrated Vauban only copied after Scheiter, at New Breslau.

Every man of the least knowledge of fortification must see, that the whole system of that illustrious engineer differs essentially from the author we have quoted.

The defects which are manifest in all these different systems shew the superiority which exists, to this day, in all the fortifications that have been constructed by Vauban.

An anonymous writer in the Sardinian service, proposes two new methods of fortification in a work entitled Science de la Guerre, which was published at Turin, in 1744. After having discussed, at considerable length, the art of fortification in general, its utility, the different sciences which must be acquired towards obtaining any degree of perfection in that art, the various systems in it, regular and irregular, and the construction of palisades, gates, mines, casemates, magazines, &c. &c. he concludes with this extraordinary sentence: "It is not my intention to propose any alteration in the general system, but merely to suggest, that the style he reduced more intelligible." It must be noticed, that this Italian writer in his preface, frankly confesses his deficiency in the French language. We shall however pass over what he says relative to the approbation which his proposed systems, or rather his explanation of methods already known, has met with from scientific men, and give his own observations concerning the improvements that might be made. His words are—

"The first method which I propose, consists of a new figure and position that should be given to exterior works in fortification. Having constructed the body of the place after Vauban's manner, my next object is to erect counter-guards with bastions at the head, and flanks upon the wings. I have been induced to adopt this species of work, in order to remedy the inconveniences and the dangers which inevitably attend works located at the foot of the glacis. These works contribute very little to the security of the place, and can only be defended by
cannon, which eventually do more harm to the garrison than to the besieging enemy, since they serve as an emplacement to the battery, which the latter will naturally erect the instant he obtains footing in that quarter. This was proved during the siege of Turin, where in a very short space of time the French carried the bouches and fleches, and made use of them for the purpose of bringing up their artillery.

By means of the small bastions which I have proposed, and which must be pushed forward into the country, the enemy's approaches are necessarily checked; the salient angle of the counter-guard is covered, the ditch is completely flanked, and the garrison are impressed with confidence, because the artillery and the troops can always be called in, in cases of exigency. They moreover equal the enemy in the fire which they can furnish, and the whole body of the place is covered above by vaults made of brick or timber, and by boards well supported underneath by strong stakes, the whole being strengthened and rendered bomb-proof with earth 3 or 4 feet thick. This earth keeps the upper plan of the bastion compact, and is sufficient to form a parapet to the counter-guard when the bastion is destroyed. If the vaults should be blown up by mines, and the besiegers set fire to the beams that supported them, a fresh work will present itself, together with a ditch which they had not foreseen or expected, and which they must cross before any further impression can be made.

This sort of subterraneous fortification is extremely advantageous, and may be converted to various purposes. It serves for casemates and galleries to the mines, which I would construct along the whole extent of the faces belonging to these bastions; a communication with them is kept up by means of the galleries attached to the counter-guard. These galleries must be blocked up the instant the bastion is demolished. The flanks of the side will be built after the same method, with a ditch as wide as the one dug in front of the bastion, and which, according to circumstances, may be uncovered, like that already described. The flanks will be of a round figure, in order to avoid the projection of any angles towards the body of the place, which would be the case, should the work be carried; for the enemy wailing himself of the earth in front of the walls, and throwing it up, would derive considerable advantage from these angles.

The principal advantage to be obtained from my system arises out of the double defence which it affords to the salient angles of the bastions, by covering a part of the demi-lunes mitres, or mitred half-moons (which are their chief protection) and by these means concealing the body of the place from any outward command, or eminence. This cover or defence cannot, in fact, be taken, before the enemy has got complete possession of the outworks.

I have spoken of these sorts of fortification in the chapter that treats of field works, which, in my humble opinion, are more useful, more solid, less expensive, and more easily built than a variety of others that have been adopted to this day.

The demi-lunes or half-moons which I have referred to are nearly mitred or crossed, and which I dispose between the counter-guards, have been constructed in that manner for the purpose of stretching as far as possible, beyond the body of the place towards the country. One essential advantage attends this method, which is, that the work being more spacious, it is better calculated to hold a greater quantity of artillery, and a large garrison; that it becomes double by means of the ditch, which separates it from the advanced work, which it covered as described above, and which is joined to the interior revetment by plain walls, separating a whole half-moon from it; in which space a small fort with loop-holes may be constructed to enable the garrison to dispute every inch of ground as the enemy advances. Under the main body of the place, I build a subterraneous chamber, to serve as occasion may require, either for a powder magazine, or for mines. Between the half-moons and counter-guards, I construct another kind of ravines, which are open towards the body of the place, cover the curtains of the counter-guards, and supply a double fire against the enemy and the country. These ravines are not raised so high as the other works, in order to keep them under their fire; and I preserve a communication by means of palisaded caponiers. I leave them empty within, that the besiegers may have as little ground as possible; they are moreover sufficiently thick and solid to withstand the discharge of ordnance, which can only batter in breach from the counterscarp, which acquires double strength, because by means of these works, it is enfiladed, and secured against the enemy's attack or attempt to make a lodgment.

If the plan, which I had the honour of laying before the king of Sardinia, be carefully examined, it must be apparent to every military man, that the works I therein describe, are not only more useful, but capable of being constructed at a less expense, than those which are generally practised to this day. It will be clearly seen, that I have done nothing more than add some additional proportions of the flanks and bastions to the counter-guards, which are usually erect-
ed; and that I have augmented their
double face, by joining it to the half-
moon fort the curtain. The object of this
addition, is to throw obstacles in the
enemy's way, should he attempt to make
close approaches, that is to cover the body of
the place, to render the siege difficult, to
increase the besieger's expense, and to
give confidence to the troops of the gar-
ison, who are thereby no longer exposed,
as they must be in all outworks erected
upon the foot of the glacis.

It is not, however, my design to throw
works of this kind into utter disrepute.
There are situations and local circum-
stances, which not only make their adop-
tion useful, but render it absolutely ne-
necessary. I cannot pretend to describe
the specific nature of such exigencies, as
they grow out of existing cases, which
an able general and an engineer will know
how to discriminate by examining the
place; but that on the contrary by
canceling the parallelogram of the coun-
ter-guards, I rendered more obvious the
battery which the enemy might erect in
front of the bastion, whilst the rampart
belonging to it fell under a cross fire from
the mitred half-moon.

With respect to its uselessness in ir-
regular fortification, after having discussed
the subject at some length, I got him to
agree with me, that every detached piece
of fortification might be constructed any
where (and with greater advantage to the
ultimate defence of a place) sooner than in
plain counter-guards, horn or crown-
works, tenailles and such like fortifica-
tions, because by means of the retreat
which was secured under a second line of
trenchment, by means of the regular
resistance it afforded, without having one
dead angle attached, and by means of the
little ground it left for the enemy to lodge
on, the main body of the place was more
effectually protected, and the approaches
of the enemy were considerably checked.

With regard to the construction pro-
posed in this new method, I take all the
measurements, and I mark all the essen-
tial points upon capital lines; that is to
say, I prolong the lines of the salient an-
gles of the bastion, and those of the
centre half-moons; for unless the enemy
has first effected this, he will not be able
to cross the ditch, or make any lodg-
ment, since at every approach he must
be annoyed from the flanks, and baterial
in front; he must, in fact, attack and
get the better of five works at once. The
execution of any part of so important a
task, must be the more dangerous, be-
cause in proportion as he overcomes one
line of defence, another presents itself
which is equally formidable, and the rest
increase in difficulty and hazard.

When I submitted this new method to
the consideration of able and intelligent
men, only one opponent started to con-
trovert the property of its general adop-
tion. This was a celebrated Dutch en-
erine, who asserted that it could not be
of any essential service, except in hexa-
gons, or figures that had many sides; he
further argued, that the method was more
faulty in small works, because the an-
gles became more acute, and that no use
would be made of them in regular fortifi-
cation.

I had the good fortune to satisfy this
gentleman, and to convince him, that his
objections were not well founded. I
stated to him, that by increasing the
width of the ditch at the angle of the
flanks of the bastion, I reduced that angle
to any size I judged necessary; I main-
tained, that by so doing I did not weaken

The ditch belonging to the body of the
place, be its soil what it may, must be
very broad, as the chief security to be
derived from it, depends entirely upon
its width. The enemy cannot easily fill
it up, and he must suffer a considerable
loss of men, should he attempt to cross it;
bearing exposed to the discharge of ar-
tillery from the flanks, which artillery
cannot be dismounted from any quarter
of lodgement, before the counter-guards
are taken. The storming of the place
must depend entirely upon the previous
conquest of the side ravelins, and of the
centre half-moons; for unless the enemy
has first effected this, he will not be able
to cross the ditch, or make any lodg-
ment, since at every approach he must
be annoyed from the flanks, and baterial
in front; he must, in fact, attack and
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the most common understanding may become acquainted with the construction. He appears singularly anxious to have it practically proved, that works can be erected according to this method at a less expense than by any other, and that there is no comparison between the advantages it affords in point of real utility. In chap. 16, p. 61, the following account is given of his second system, which he calls the Great System.

After I had thoroughly digested my plan, relative to the best method of covering a town or fortified place by outworks, it naturally occurred, that I had not provided the necessary means of keeping the troops under shelter, of securing a retreat to the artillery, which is always directed all the faculties of my mind to objects put my invention to work, and I directed all the faculties of my mind towards discovering a kind of fortification which might not only cover the body of the place, and by a new disposition of its relative parts communicate equally with every quarter, without there being any necessity to carry the heavy ordnance into the ditch; but likewise oblige the besieging enemy to increase his means of attack, and make extraordinary efforts. I necessarily saw, that the salient angles of the bastions should be well covered, and that the strongest ought to be raised before the curtain belonging to the body of the place, in order to force the assailants to make their attack on a quarter from whence the concentrated fire of several works, presenting a wide front of artillery, would issue with considerable effect. After having for several years, directed the whole of my attention to this specific object, and tried the result of my reflections upon paper by a variety of designs, I had the good fortune to discover a method, whose plan exhibits to the eye several pieces that are joined together by their different walls, and in front of which there are ditches covered in with beams and strong oak boards, and made bomb-proof by means of a sufficient quantity of earth that is spread upon the whole. So that it appears evident to me, that there is only one species of fortification, which affords the means of concentrating your line of defence from every quarter, and of lining the parapets with heavy ordnance. By means of this construction, the lines and gradis will be secured against any immediate approaches of the enemy, during which seasonable interruption, the artillery may without risk, be withdrawn and lodged in the interior work; a convenience which cannot be obtained in detached pieces, on account of the difficulty which always attends the first erection, or ultimate demolition of them.

By taking away the beams, or by destroying them at once, and by pulling down the walls which compose the flanks, you suddenly open a new work upon the enemy; which work has the advantage of being considerably larger than the one he has just attacked and taken, and against which he must raise fresh batteries, and prepare the means of crossing a ditch, he had not foreseen, and which he cannot easily pass. This work either communicates with a tenaille that commands it, or is connected with a horned work, flanked by two others of similar construction. The tenaille is open in the centre (being divided into two parts by a ditch) in order to leave as little room as possible for the enemy to lodge on, and to multiply the entangling points of the place.

Between these large works, demi-lunes or half-moons, of three orders, are constructed in the shape of bastions. These have orillons and ditches between the two, which flank the side-works, and are always protected by an enfilade, that the enemy never can lodge without being exposed to a cross and rear fire. In order to cover the whole body of the place, I construct either intermediate demi-lunes, which are equal in elevation to the first works. These contribute greatly towards preventing the enemy's approaches; for they not only enfilade the covert-way, but they likewise double the defences in such a manner, that the enemy, as has already been observed, cannot attack one place without experiencing a necessity to attack four others at the same time; to which may be added this disheartening circumstance, that as fast as he advances, so fast a retreat is made behind some new work, and he is, of course, obliged to recommence his attack.

The regular communication between the several works must be kept up by means of sleeping bridges, which are well supported underneath by strong beams or stakes. Those which form a part of the rampart must be covered with four feet of earth, well pressed together. The earthworks by which the works are connected must be so built as to be easily demolished, and they must only serve to cover the subterraneous fortifications. These walls are never within the reach of the enemy's cannon, and when they are pulled down, their ruins are thrown into wells, or excavations, which have been previously dug at the foot of the main wall, to prevent the ditch from being filled with them: subterraneous embrasures are opened from within to enfilade the ditch, and to obstruct the passage.

When by dint of perseverance, and after having expended considerable sums of money, lost many lives and consumed much time the enemy has at last obtained possession of these works, he discovers, that his sacrifices have only led him to an unexpected body of the place which he cannot injure. This new construc-
tion he flanks on both sides by two double bastions, and a broad curtain lined with a triple front of artillery, having a very wide ditch, traversed by trellises, batteries from casemates, and defended by flanks with the two cavaliers belonging to the bastions, which keep up an incessant fire upon the artillery that is planted in the carried outworks, and render it almost impossible for him to establish a lodgment."

"I need not pretend," continues the same author, "to have discovered by this new method, any certain means of rendering a place impregnable; such an idea would be chimerical and absurd. Let a town be ever so well fortified, that town, if properly invested and absolutely attacked, must eventually fall, unless it be seasonably succoured from without. My chief object is to correct the errors into which former writers seem to have fallen, and by the methods I have proposed, to harass a besieging army, not only by increasing its expense, but by occasioning a considerable loss of men; I thereby prolong the siege, and gain time for the garrison, so that succours may arrive, or such conditions be entered into as will secure the country, which the place attacked is destined to cover.

Counter-guards, ravelins, and demi-lunes are, in fact, a species of fortification by which they flank one another obliquely, and which only tend to embarrass the troops of the garrison, whenever it is judged expedient to manoeuvre under the fire of artillery; a circumstance that invariably causes confusion; whereas the works which I have proposed are capacious enough to admit of every movement and evolution without inconvenience.

Horned and crowned works are extremely expensive in their construction, and of little use when completed; their lines of defence, their faces and their flanks are so short and limited, that a besieging enemy can with great ease attack, and carry them by means of an equal front and range of fire: and when he has so far succeeded, he derives considerable advantage from having opened a wide space of ground on which he can erect angles to annoy and batter the place. Whereas in the works of my proposed method, the foundations are broader, the defences are more direct and with-in musquet shot, and when the garrison retreats towards the body of the place, the ground which it abandons is scarcely sufficient for the erection of a small battery; it is moreover exposed to all the entrenched and flanking points, so that the enemy would be instantly dislodged.

Treillis and queues d'embrasure contain dead angles which may always be taken advantage of by the besieging enemy. This does not exist in the works I propose. For at every approach, not only fresh expences must be incurred by the assailant, but he will remain exposed to several fires at once, without being able to cover himself from the reverse and cresses.

Double ditches afford the means of creating perpetual uneasiness in the enemy, by uncovering fresh works as he advances. So that the siege is protracted, his expences are increased, and his loss of men, ammunition, stores, and artillery is proportionally multiplied.

In the examination which was made of the relief proposed by me; some persons well acquainted with the particular subject, objected to its adoption on account of the expence. I made an accurate calculation of the amount, and I found that it cost a sixth more than the usual fortification. This does not assur- edly form sufficient ground to outbalance the many advantages which can be derived from the construction. Besides, there is no occasion of fortifying all the parts of a town in this manner, since it would be advisable to strengthen the weak points only."

The construction which is proposed in this new method, is simple, and easily understood. The principal objects to be attended to are these, that there be mines under all the works, and that a regular communication be kept up with the chambers by means of subterraneous galleries, which must be resorted to in proportion as the enemy approaches.

The Piccardese engineer, from whom we have made these extracts, has added to Vauban's and Cochon's systems. We leave the subject to the consideration of those professional men who have made the art of fortification their peculiar study; they must determine whether the theory of the proposed method be susceptible of practice, and if so, whether it can be rendered so generally useful, as the author seems to promise it would.

On a general view of the subject it must, however, be acknowledged, that a situation is not always found which will admit of the improvements and additions that might otherwise be made. There are some old places in which the figure of the fortifications erected for their defence, is so strange and whimsical, that the least correction of its errors, must be attended with an enormous expence.

A town may be irregularly fortified, and owe that irregularity either to the figure of the works only, by the angles not being equally distant from the centre, although every one may admit of a good bastion, and the lines be tolerably extensive; or by the figure and the angles differing, from some being too acute, and others being rentant; or by the inequality of the figure and its sides; some being too long and others too short; or finally by a disparity all together in the figure, in its sides and angles.

If the three first kinds of irregularity
are judiciously corrected, the correction of the fourth follows of course, as it is only the natural consequence of the others. Those irregularities may be occasioned by a neighboring river, by the entrance into a creek or harbor, or by steep rocks beyond which it is impossible to carry the works.

It is a sound and general maxim in the art of fortifying, to reduce the irregular proportions of its lines, &c. of defence to as much regularity as the ground and situation will permit. For by so doing, their strength becomes equally great throughout. If you should not be able to surmount the natural obstacle which may be thrown in your way, you must never deviate from the general rules that are laid down in regular fortification. These are, that all the parts be well flanked, that the angles of the bastions do not fall under sixty degrees, that the line of defence be within musket shot, or that outworks be established to bring it within that range; and finally, that the means of resistance be distributed in as many equal proportions as the irregularity of the works will suffer.

You must, however, be careful to avoid an error into which many have fallen. You must not weaken the collective means of defence, in order to strengthen any particular vulnerable quarter; for by so doing you are sacrificing a great line of defence, to the security of a small part which might be strengthened by outworks.

The author of Oeuvres Militaires, in his pl volume, page 45, has given observations and maxims relative to irregular fortification.

Baron d'Espagnac, in consequence of the remarks which are made by Marshal Saxe, in his Recueil, has in his supplement to that work fully discussed the subject of fortification, and described the different means of attack and defence. We refer the inquisitive officer to those works. Before we conclude these interesting remarks upon an art, which is certainly equal to any invention that has employed the skill and ingenuity of man, we must observe that in all periods, productions on that head have been as numerous as the subject has hitherto proved inexhaustible. It must, however, be acknowledged with some regret, that the tendency of the greater part, if not of all, seems to be an indiscriminate and bold attack upon the works of the immortal Vauban. These writers censure the methods of that great engineer by proposing something of their own, which only differs in appearance, and which they think proper to call a superior system. Assertions, and promises to afford new lights upon the science of fortification, have always, in fact, been profusely given by authors of this description. Their labors, however, are only so far to be regarded and esteemed, in as much as their different systems tend to point out the necessary calculations which are required to shew the expense attending their construction, and to prove the effects they might produce. The memoirs upon pendular fortification, written by M. Montalembert, engineer, will throw considerable light upon these observations.

With respect to the knowledge of fortification, it must be manifest to every thinking man, that from a chief magistrate, or head of a country, down to the lowest infantry officer, the acquirement of it is more or less indispensably necessary.

A chief magistrate of a country, should be well versed in the science of fortification, in order to examine the plans that are laid before him, and to determine upon the execution of proposed projects.

A secretary of war should know it, in order to explain the nature of the plans when questioned by a superior power, to calculate the expenses which will attend the construction of works and to distinguish good ones from those which might be useless and expensive.

Every commandant of a town or fortified place, should be well acquainted with the subject, because it may fall to his peculiar share to construct works in cases of emergency, or to add to those already erected for the defence of the place entrusted to his care. He must observe that at all times, to be able to ascertain how far such a place is capable of holding out.

Every director of fortification should be master of it, in order to discriminate between what is proper, or what is defective, and make his report accordingly.

Every infantry officer, in a word, should be conversant in field fortification at least, if not acquainted with the general system. For without some knowledge of its branches, how will he, in cases of emergency, be capable of throwing up a temporary redoubt, or fortifying a spot of ground which he is ordered to maintain, or of securing a common out-post?

Field Fortifications, fortifications de campagne, Fr. consist in the art of fortifying, constructing, attacking, and defending all sorts of temporary field works during a campaign.

Although an engineer may be perfectly master of the different methods by which a town can be strengthened and secured by permanent works, he should not remain satisfied with that acquisition, but carefully direct his attention to the distribution of ground, for field fortification. He should be able to ascertain, with geometrical precision, all the relative divisions and corresponding points of any situation in which it might be expedient to construct that species of fortification which consists in interlaced lines, forts, or small forts, and in redoubts of various denominations. The
shape or figure of these works is exactly similar to those of the permanent kind. Ditches, ramparts, and parapets must be dug and thrown up, to secure the forms in the same manner as they are practised for the protection of the latter. They only differ in their measurement and proportions. Intrenched lines are made for the purpose of covering a camp from any sudden insult of the enemy, which should always, on this account, be pitch in the most advantageous manner; contiguous to and facing that quarter where it is probable the attack will be made, a ditch must be dug, having three toises at least in width and two in depth. This must be defended by a parapet or redans, or by occasional flanked with small bastions, two toises thick, consisting of solid stone earth well pressed together, covered and supported with fascine; having like-wise bastions behind them sufficiently high to conceal the soldiers' tents. If water could be conveyed, or drawn into the ditch from any adjacent rivulet, or river, the security would be greater. When the lines of intrenchment are thrown up with an intention to maintain the ground any length of time, a covert way must be made, which should be regularly fenced with palisades.

There is another species of field fortifications, which is resorted to in order to keep up a communication between two places; in which case great care must be taken to prevent the lines from being enfladed in a quarter; and if they should be exposed in that manner, no time ought to be lost in strengthening the weak points by constructing redoubts, or small forts. The defence of these redoubts and forts must be entrusted to small arms and musquetry, but not to cannon, as the range of the latter is always too extensive to prevent an enemy's close approaches to the lines of communication from their field works, or forts. Necessary drains must be made to let out the water that collects, as it would otherwise destroy the works, drown the sentries, and cut off all communication with the main body.

When a position is taken upon a steep rock, or eminence extremely difficult of access, the lines which surround it do not absolutely require ditches for their safety, as the parapet and banquette may probably be sufficient; but if any vulnerable or weak part be observed, every effort should be used to get at a spring, and to fill up an excavation in front of it, to prevent surprises. An able engineer will be particularly careful in drawing his plan of communication, to ascertain the exact points whereby they may be protected by an embank from one fort to another; so that if the enemy should make a lodgment anywhere, he will not be able to maintain his position on account of his being flanked by other works.

Field works, or small forts are generally constructed in places the preservation of which is judged to be indispensably necessary. Such, for instance, are ovals of laid that stretch into a marsh, and are surrounded by it: the passage of a road, ditches or forts, or head of points, and other objects of similar importance in offensive, or defensive operations. On these occasions the shape and size of the construction must depend upon the nature of the ground, the importance of the undertaking, and on the number of men by which the works are to be garrisoned.

Many forts in field fortification are built in triangular forms; some are square, some starred, or en étoile, some as redoubts, in the shape of demi-lunes, others in crown, or horn-work, and others again in the figures of tenailles or quatre d'hirondelle.

When the object of defence is a wind-mill, a castle, or a small dwelling-house, the first step to be taken, is to select a spot of ground upon which you are to build the field work, so as to check and prevent the enemy's approaches. In order to do this effectually, the shape and adjacent parts of the building must be closely attended to, and the work be thrown up without exposing it to a rear attack; but if the place to be defended stand alone, and be not supported by any ditch or embrasure on its flanks, or in its rear, you must then fortify it in the same manner as it would otherwise destroy all and has no purpose must depend entirely upon the number of men the fortress or fortified place, in that case a large retrenchment, resembling a piece of land that stretch into a marsh, and are surrounded by it; the passage of a road, ditches or forts, or head of points, and other objects of similar importance in offensive, or defensive operations. On these occasions the shape and size of the construction must depend upon the nature of the ground, the importance of the undertaking, and on the number of men by which the works are to be garrisoned.

An engineer from Picquemont, who has proposed some new methods in field fortification, is decided against stone and masonry, in the construction of parapets and field works. His reason is self-evident; for as he justly observes, the sectored pieces which must naturally be thrown about in all directions by the demolition of the walls in the discharge of heavy cannon, would do more mischief than the cannon itself.

It is frequently found necessary to fortify a bridge; the means adopted for this purpose must depend entirely upon the size and current of the river. If the stream should be broad and navigable, and so far from the fortress, that it cannot be defended by the abundance of the town or fortified place, in that case a large retrenchment, resembling a piece of ground that stretch into a marsh, and are surrounded by it; the passage of a road, ditches or forts, or head of points, and other objects of similar importance in offensive, or defensive operations. On these occasions the shape and size of the construction must depend upon the nature of the ground, the importance of the undertaking, and on the number of men by which the works are to be garrisoned.

Field works, or small forts are generally

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be capable of opposing the attack of a large detachment from the main army of an enemy. A half-moon must be constructed within the lines, with a ditch in front, to serve as a work behind which the garrison might retreat with its artillery, dismounting every inch of ground, and by that means affording sufficient time to cut down the bridge.

If the river should be narrow, yet wide enough to prevent any sudden irruption into the country beyond it, the bridges that are across must be fortified by works made of earth, which are to be covered by ditches dug in front. Half-moons, trelisses, crown and horn works, and similar constructions, provided they be well fortified with palisades, will answer all the purposes required in such cases. The engineer, by the first glance of his eye, will be able to ascertain the situation of the country, and to fit his works accordingly.

Small lodgments, or wooden recesses, must be made as guard-houses, in which detached parties of men should be stationed to meet the first attacks of the enemy, and to keep him in check while the whole army passes over the river, or is drawn up in order of battle to dispute the passage. These intrenchments must invariably be well furnished with light artillery, for the purpose of annoying the approaching enemy. But the disposition and arrangement of these pieces must always be such as to admit of their being instantly removed, when the intrenchments are carried, under the cover of heavier ordnance which is kept playing upon the enemy from the opposite side of the river.

Practical Maxims in building Field Works. 1st. The spot on which works are to be constructed should determine their figure; nor should any attention be paid to preserve a regular form which does not occupy the ground to advantage.

2d. Every line must be so disposed, that the slope of hills all around even to the very bottom, be open to the small arms of the garrison; and every part should be discoverable to the distance of at least 500 paces.

3d. Works thrown up for the defence of a defile, should always be within musket shot of it, which must not be more than 200 yards.

4th. The best defence in works that are halted, or where one side is defaced by the size of another, is that formed by right angles.

5th. A salient angle should never be less than 60, and a re-entering angle, less than 90 degrees; nor greater than 120 degrees.

6th. The entrance to the work should always be made in the part least exposed to attack, and if possible in a re-entering angle.

7th. Endeavor to present, if possible, a larger front to the enemy than he can occupy in making the attack.

8th. Avoid all ground commanded by an eminence, either in front, back, or rear.

9th. Never leave the rear of a work so exposed that the enemy may turn it.

10th. Always make the angles of a work in the directions least exposed to attacks, and consequently always present a front to the most exposed.

11th. The garrison should never be drawn up more than two deep; and an ordinary pace of two feet is usually allowed for each file, and from 6 to 8 paces from each piece of ordnance.

12th. If a work is so large as to be defended by a battalion or two, a reserve should be allowed of about one sixth of the number.

13th. The space within a work should always be sufficient for the men to move and lie down. Every soldier will require at least 18 square feet, and every field gun at least 216 square feet.

14th. Provided the line is not made too extensive, the more inward space there is the better.

15th. A parapet to resist cannon shot should never be less than 12 feet thick; and for musquet shot not less than 6 feet.

16th. The height of the parapet must be regulated by the situation of the work, and of the adjoining ground; with this consideration, that its height above the banquette does not exceed 4 1/2 feet.

17th. The depth and breadth of the ditch must be regulated by the quantity of earth required for the parapet and banquette.

18th. A file de pont, or work to cover the embarkation of troops, or the passage of a river, should, if possible, be made where the line of the river or coast forms a kind of re-entering angle; that the banks of the corps, as well as those of the works, may be covered.

To carry on the work — The number of workmen must be so proportioned to the time allotted for carrying on the work, the quantity of labor, and the number of hands capable of being employed at the same time. When the ditches are broad, the workmen may be posted in two rows; but if narrow, only in one. In the first case, the earth will be thrown by those who are on the outward edge of the ditch to the second row, and by them upon the parapet; for which reason the second row, to keep pace with the first, ought to be twice as numerous. The workmen should never be placed nearer than 2 paces, or 4 feet, from each other; and two men with shovels should be preceded by one with a pickaxe. If more than usual expeditions be required, one man with a wheel barrow, or basket, may be added to six or eight with shovels. Another row of workmen should also be placed upon the parapet, to spread the earth and beat it down, as it is thrown up.

In fixing the fascines, three men will be sufficient for every 24 feet of the work.
who should be provided with mallets, a saw, and a hatchet.

In order to form some idea of the time in which a field work may be completed, compute the number of cubic feet of earth to be excavated, thus: multiply half the sum of the breadth of the ditch at top and at bottom, by the depth, for as the earth forms a natural slope, compute the number of cubic feet of masonry of revetments should not be so

in a day in the summer, but this is not always the case. If a field work be completed in 24 hours, it will be as much as the most diligent workmen are capable of. This time is generally allowed for the formation of a week's work, 48 hours for that of a stronger, with a revetment of fascines and 92 for the strongest.

The area of the ditch for the works must depend upon the nature of the soil, and the materials of which the work is composed. The interior slope of the parapet, though it be fascined, should be 7.6 of its height. The slope of the bank is generally equal to its height. The superior slope of the parapets must entirely depend upon the situation of the work, and that of the surrounding country. The interior slope of the parapet is generally lined with fascines, to keep up the earth; but it is not absolutely necessary to fascine the exterior slope, if the soil be pretty stiff. The embrasures are generally made 20 inches wide on the inside, and 9 feet on the outside; they must always be lined with something to retain the earth; turf is generally preferred, as fascines are so apt to take fire.

The manner of making the materials for field works, may be seen under the heads Fascines, Gabions, Hodden, &c. and the manner of estimating the quantity of materials for works of this kind, may be seen under the word Battery S. E. Am. Mil. Lib.

Fortification . . . Permanent.

A parapet, to resist cannon, should never be less than 18 feet thick in earth, and 8 or 9 in masonry. A wall need only be two feet thick in masonry to resist musket try. The parapet should always be 4 1/2 feet above the bank, and 7 1/2 or 8 feet above the rampart, or terre-plein.

The Rampart should always be sufficiently wide to allow for the platform, and for two carriages passing each other, about 9 fathoms at top. A parapet of earth, though it takes more room, is always preferable to one of masonry, when it can be raised; though the only objection to the masonry, is the number of splinters it produces.

Entire Revetments of masonry are not advantageous for the same reason. The masonry of revetments should not be so high as to be seen or battered from a distance; earth parapets are battered in vain, as the earth forms a natural slope.

The best Scarp is made of masonry, either in wet or dry ditches, be the earth so ever so well taizd or palisaded. The earth one may be stormed without making a breach. The scarp should be 30 or 35 feet high.

The Counterscarp should also be of masonry, and not less than 12 feet high. The inconveniences of an earth or low counterscarp, are the impossibility of defending the last the cover way, as the enemy may descend into the ditch, and seize the covert way, and so yet in the rear of the traverses. The enemy may find his way along the natural slope of an earth counterscarp, and is not delayed by a tedious operation of getting into the ditch. Besides the natural slope of the end of an earth traverse prevents its effectually covering the covert way.

Ditches are generally 15 or 18 toises wide. Dry ditches are always preferable to wet ones, on account of the shelter they afford the troops, and the ready communication with the outworks, without the constant trouble and danger of bridges.

The Counterscarp should be 3 toises wide; less would crowd the troops, and more would allow room for the enemy to erect batteries in it.

The whole of the glacis should be seen, not only from the crest of the parapet, but from the embrasures in the parapet; the Enclaire, must not be so high as to prevent the flank guns in one bastion seeing the breach that may be made in the collateral one.

Ravelins are best without flanks; their faces directed to 10 toises from the shoulders of the bastions.

The crest of the parapet of the body of the place should be 8 feet above the crest of the glacis, and this across a ditch of 15 or 20 toises.

The crest of the parapet of the ravelin is 3 feet lower than that of the body of the place, in order that it may be more effectually commanded from the place; and therefore to enable the parapet of the ravelin to command its own glacis, the ditch is only made 10 toises, and this glacis is a foot lower than that of the body of the place.

There must be an equilibrium of defence established through every front of a fortified place; for it will be needless to strengthen any particular front, if the others from their weakness be left exposed. The following remarks may enable an observer to appreciate the value of particular works, in the proper application of an arrangement of which that equilibrium consists.
Intrenchments within the works add much to their defence. In large bastions with obtuse flanked angles, the best intrenchment is formed of the front of a fortification, or of two demi-bastions and a curtain, connecting the angles formed by the flank and curtain. If this intrenchment be advanced to the shoulders of the bastion, to include its flanks, as is often the case, it will be subject to be taken in the rear, by the fire from the counter-batteries opposed to the flanks. But in bastions with acute flanked angles which do not afford sufficient space for this kind of intrenchment, Corrontaigne proposes one in the form of a cavalier, whose faces and flanks are parallel to those of the bastion. The first kind of intrenchment does not operate in the defence of the place, till after the passage of the ditch; till which time it remains empty, and then capable of a very great defence. The second kind becomes a support to the bastion from the first commencement of the siege; but it is therefore necessary to have its defence destroyed at a distance. Nor is its defence equal to that of the other form.

Counter-guards should possess the three following properties: 1st. They must cover effectually the principal work before which they are placed; at least that part of it, which can be battered in breach. 2d. They must be lower than the work which they cover; but not so low as to permit its revetment to be seen. 3d. They must be so narrow as not to afford room for the besiegers to erect batteries in them, against the work which they cover, and therefore not leave the besiegers a chance of positions. The counter-guards in Coehorn's system are only of earth, through which it is necessary to make an opening, before the capital work can be battered.

Hence to Crown works, unless to occupy some important point, to strengthen some weak side, or to afford more room for a confined garrison are rather a weak than a strong arm to a place. This is particularly the case when they are constructed with smaller, and consequently weaker fronts, than that part of the body of the place which they cover: as they facilitate, when taken, the approaches to the body of the place. This is remedied by constructing their fronts of the same strength as the front or fronts which they cover. They also facilitate the taking of the place, by exposing the revetment of the work on which their branches are directed to be battered in breach, along the ditches of those branches. This is a great evil, even to an outwork, but is of serious consequence if they rest upon the body of the place. This defect has been remedied by placing those works altogether outside of the covert way, and allowing their ditch no communication with those in the rear. In this case their gorge must be made very secure to prevent its being turned.

An Advanced Court way, is esteemed amongst the best means of adding to the defence of places. Besides the advantages common to the usual covert way, it has many peculiar to itself. It however seems necessary to ensure to it the advantages of which it is susceptible, (besides being properly palisaded,) that it should be secured in the rear by a wet ditch, as the only means of giving it an inaccessible counter-scarp, and at the same time keeping it under the fire of the mule-queue of the place. This kind of covert way is generally supported by redoubts upon the capitals of the bastions and revetments which from their position cannot mask the fire of the place; and being mounted with artillery, facilitate the sappers to commence their attack at a great distance, and very much to extend their operations; and as their establishment upon this covert way must effectually mask the fire of their first batteries, it must greatly increase their labor. The retreat from these redoubts must be secured by an underground passage.

Countermines are undoubtedly one of the first means of strengthening places. For this article we refer to the word Mines. Detached redoubts, when circumstances of situation favor them, are employed with great success. They are usually detached and totally unconnected with any of the works of the place, by any covert way or other above ground work; and have for objects, either the opposing an addition of troops to the besiegers at a point they occupy, or the rendering the adjoining fronts inaccessible, by an enflade or reverse fire upon the approaches. They also afford at the gorge, a most excellent rendezvous and retreat for sorties; upon the level of the country, and without the difficulty of filling troops through the barrier of a covert way.

But in order to insure to the detached works or works, all these advantages, it is necessary that they should be either totally inaccessible to the besiegers, by reason of the natural difficulties of their situation, as in an inundation, morass, &c. or be made secure by art, from being taken by storm, and only attackable by regular approaches. They should be under cover of the fire of the place; but if their distance be too great for that, an intermediate work must be established to give them support. Their best form is that of a bastion with retired flanks; and a strong system of countermines the most efficient way of prolonging their resistance.

General remarks...The larger the flanked angles of works, the more direct will be their fire, and that of their covert way, upon the approaches; the greater extent they will oblige the besiegers to occupy in their parallels and batteries; and the more will they oblige the besiegers to expose themselves to the fire of the fronts collateral to the one attacked. Faces of
works directed to inaccessible situations, such as rivers, lakes, &c. from whence they cannot be enfiladed by ricochet batteries, add greatly to the strength of a front.

If the flanked angle of a ravelin be so advanced as to be in reverse any battery erected upon the crest of the glacis, or in the covert way of the bastions, it will increase the strength of that front; because it will oblige the besiegers to gain possession of the ravelin, before they can make any judgment from which they can batter the bastions. This is the case in Corpo-

thorign's system: and a place thus fortified, obliges the besiegers to attack and gain two ravelins to get at the bastion between them. Besides, if this system be applied to a right line, or to a polygon of many sides, the prolongations of the faces of the bastions will be intercepted by the flanked angle of the ravelins, and consequently make the establishment of enfilading batteries against them very difficult.

A work which admits of a breach being made in it (particularly the body of the place) at a distance, very much facilitates its being taken. The ditch of the ravelin affords an opening through which the besiegers may make a breach in the face of the bastion from the glacis, opposite the flanked angle of the ravelin, and is therefore subject to this defect. A counter-guard before the bastion, lessens this evil, by transferring the breach from the body of the place to the ravelin, but it requires a counter-guard also before the ravelin, especially to cure it. A crown or horn work also produces this evil; its remedy was given, in speaking of those works.

The direction of the flanks or faces of a work is not so material as relating to the fire of artillery, as to that of musquetry; for artillery is never fired without being pointed, but musquetry is fired mechanically, and perpendicular to the parapet, without much attention to the object to be struck.

A work in the neighborhood of a height must be decladed* from that height, that is, instead of being built upon a horizontal plane, it must be erected upon an imaginary inclined plane, passing from somewhere in the interior of that work, over the most commanding points of the height; and every part of the works must bear some relation to this inclined plane, that they would do, to a horizontal plane in a level country.

A work is not therefore always to be condemned, because it is in the neighborhood of a height; for if it be properly decladed from that height, it will receive a great advantage over the approaches of the besiegers, carried on down an inclined plane towards it. But a work to be pro-

* The French use the word declade in a contrary sense to enfile; and as we admit the words enfiled and enfiled from the latter, we cannot refuse the terms declade and decladed from the former.

perly constructed in the neighborhood of heights, must not uniformly preserve the same distance from those heights, unless their summits be all upon the same level; but must approach them at their lowest parts, and recede from them as they rise; thus will the necessary plane of declension preserve nearly the same degree of obliquity throughout.

Dimensions of Walls and their Counterparts, from 10 to 50 feet high, having a Slope of 1/5 their Height.
which is given when a regiment, or company, has been interrupted in its regular movement, and the march is continued. On this occasion, every succeeding division must preserve its proper distance and mark time until the word Forward, is given. This frequently occurs in the passage of obstacles, and in the winding of roads, streets, &c.,

Right shoulders Forward, an ab- or left word of command, used in the British exercise. It is a gross misconception of the French line of science, which requires the whole body to face in the given inclination; every man must see that it is impossible for a soldier to march either with ease or grace in such a position. See Line of Science.

Fosse, in fortification. See Ditch.

Fosses, pits d'eau, Wet Ditches.

Fosses secs, Dry ditches.

Fosses revêtus, Fr. Ditches that are lined.

Fosses non revêtus, Fr. Ditches that are not lined.

Foucade, Fougaude, a small mine.

Fougass, in mining, a small mine, from 6 to 8 feet under ground: It is generally placed under the glacis or dry ditches.

Fouette, Fr. Indian sky-rocket, of a species of fire-work which is frequently used by the Asiatics. The author of a late military production in France makes the following observations relative to advantages which might be derived from this weapon against cavalry, and for the defence of fortified places, or intercommunications. He observes, that the fouette, in shape, resembles a sky-rocket, whose flight is gradually brought to run along an horizontal direction. By throwing several fouettes into parks of artillery and upon the caissons, &c., considerable damage might be occasioned from the fire which would inevitably be communicated to some part. A fouette forces itself under the earth, becomes combustible and on fire at all its points; and possesses within itself thousand various means by which it can adhere to whatever object it is destined to set on fire or to destroy. This weapon would be more effectual, because it might be more variously applied, to defend the mouth of a harbor against an enemy's shipping, than red-hot balls can ever prove. Fouettes might be used on board ships of war, but there would certainly be some danger in the experiment; although, in my humble opinion, a little experience would effectually remove that difficulty, in which case ships might run along a crest, and easily destroy the wooden works that are sometimes erected upon it. They would in the first place occasion more havoc than red-hot balls; and in the next, they might be used whilst the vessel was in full sail, which cannot be done in the first instance. By means of their natural velocity they would do more execution in a less space of time, than the most active piece of ordnance could effect; and they would require fewer hands, as the only necessary operation would be to light and dart them forward. As a defensible weapon it must naturally be allowed, that, when a small body of men is attacked, the fouette might be adopted with considerable advantage. The writer of this article, who, we find, is likewise the inventor of a fouette which has been submitted to the French, continues to argue much in favor of its adoption. If, indeed, our enemies should imitate the invention, we must then have recourse, especially in seaports, to those pieces of ordnance which are calculated to do more execution at a distance; and it will then be our business to construct fouettes that shall reach such a ship, by means of a greater degree of force and velocity, which might be given to them, than they would be capable of attaining. See Rocket.

Fouiller, Fr. To search. In a military sense, it signifies to detach small bodies of infantry round the flanks of a column that is marching through a wood, for the purpose of discovering an ambuscade, and of giving timely notice that it may be avoided. The same precaution is necessary when a body of men advances towards an enemy's village.

Foundation, in military architecture, is that part of a building which is under ground, or the mass of stone, brick, &c., which supports a building, or upon which the walls of a superstructure are raised: or it is the course or bed dug below the level of the ground, to raise a building upon; in which sense, the foundation either goes to the whole area or extent of the building, as when there are to be vaults, galleries, casemates, or the like; or is drawn in cuts or trenches, as when only walls are to be raised. Sometimes the foundation is massive, and continued under the whole building, as in the antique arcae and aqueducts; but it is more usually in spaces or intervals, in which latter case, insulated pillars, bound together by arches, should be used.

There are several things to be well considered in laying the foundation of a military building. We must first examine the bed of the earth upon which we are to build, and then the under fillings or sub-structure. We are not to rest upon any seeming solidity, unless the whole mould through which we cut has likewise been solid; and in such cases, allow 1/4 of the height of the building for the following or under digging, unless there be cellars under ground, in which case it may be something less. There are many ways to try the firmness of the
FOUNDER, a person who casts cannon, &c.

FOUNDERING, a disorder in horses, which may be considered under two heads, viz.

FOUNDERING in the feet, which is an universal rheumatism, or distemper of horses upon the sinews of a horse's feet; so that in the course of time the hoofs become soft and cloven, and the horse has no sense or feeling of them. This disorder is generally brought on by hard rising. Sometimes it proceeds from sudden heats and colds; and frequently from

ground; but the following, in our opinion, is the best. Take an iron crow, or such a borer as well diggers use, which at once will point out the goodness and tenacity of the ground.

Foundations are either natural, or artificial: natural, as when we build on a rock, or very solid earth; in which case we need not seek for any other strengthening; for these, without digging, or other artificial helps, are of themselves excellent foundations, and most fit to uphold the greatest buildings. But if the ground be sandy or marshy, or have lately been dug, in such case recourse must be had to art. In the former case, the engineer must adjust the depth of the foundation by the height, weight, &c. of the building; 1-6th part of the whole height is looked upon as a medium; and as to the thickness, double that of the width of a wall is a good rule. If you build upon mossy and loose earth, then you must dig un'til you find sound ground. This sound ground, or natural foundation, is of divers kinds: in some places so hard, as scarcely to be cut with iron; in other places blackish, which is accounted the weakest; in others like chalk, and in others sandy: but of all these, that which is most firm requires most labor in cutting or digging, and when wet, does not dissolve into dirt.

If the earth to be built upon is very soft, as in moist grounds, or such that the natural foundation cannot be trusted, then you must get good pieces of oak, whose length should be the breadth of the trench or about 1 foot longer than the wall; these must be laid across the foundation about 1 foot assunder, and being well trampled down, lay long planks upon them; which planks need not lie so broad as the pieces are long, but only about four inches on a side wider than the basis, or foot of the wall is to be. But if the ground be so very bad, that this will not do, then you must provide good piles of oak of such a length as will reach the good ground, and whose diameter must be about 1-12th part of their length. These piles must be driven down by an engine for that purpose, and must be placed as close as one can stand by another; then lay planks upon them, and plait them fast. But if the ground be faulty in some parts, and firm in others, you may turn arches over those loose places, which will discharge them of the weight. You must not forget to place the piles under the masonry, as well as the outer walls; for if these should sink, it would be a means to make the outer walls crack, and so ruin the whole building.

Having thus far considered the bed of the earth on which the building is to be erected, we shall next consider the substructure, as it was called by the ancients; but our modern engineer calls it the foundation. This is the groundwork of the whole edifice, which must sustain the walls, and may be termed artificial, as the other was natural; with regard to which, the following things are most necessary to be observed: 1. That the bottom be exactly level; therefore lay a platform of good boards. 2. That the lowest ledge or row be all of stone, the broader the better, laid closely without mortar; which is a general caution for all part of a building that are contiguous to board or timber, because lime and wood are utter enemies to one another, and, if unfit confiners any where, they are more especially so in the foundation. 3. That the breadth of the foundation be at least double the breadth of the wall which is to be raised upon it; but even in this case it should give way to discretion, and the foundation may be made either broader, or narrower, according to the ground and the ponderosity of the edifice require. 4. That the foundation be so to diminish as it rises, but yet so that there may be as much left on the one side as on the other; so that the middle of that above may be extraordinarily over the middle of that below, which should in like manner be observed in diminishing the walls above ground; for by this means the building will become much stronger than it would be if the diminution were made by any other way. 5. That you should never build on the ruins of an old foundation, unless you are well assured of its depth, and that its strength is sufficient to bear the building.

The stones in the foundation should be laid as they actually lay in the quarry, for they have the most strength in their natural position. This should be observed in all parts of a building, because all stones have a cleaving grain; consequently, if the horizontal position of the stones in the quarry should be placed vertically in the building, the superincumbent weight would be apt to cleave them, and so render the building ruineous.
FOURNEAU, Fr. furnace, also the chamber of a mine.

FOURIER, Fr. A quarter master belonging to a cavalry or infantry regiment. In France there were fouriers majors of cavalry who composed a part of the cavalry staff. Serjeant fourier, and corporal fourier, answer to our quarter master serjeant.

FOURNIMENT, Fr. A horn which holds about one pound of gun-powder to prime cannon. It is likewise used by cavalry and infantry soldiers, who hang it across their shoulder. The artilleries keep it in a belt.

FOURCHETTES à mouches, Fr. Rests for a musquet. They are generally used to relieve men who do duty on the rampart of a town.

Chemin FOURS, a cross way.

Pais FOURREE, Fr. a piece suddenly patched up.

Pays FOURRE, Fr. a country thick set with hedges, &c. properly called a close country.

FOURBEAU de pistole, a holster.

FOURBEAU de pistole, pistol bag.

FOURBEAU d'épée, the scabbard of a sword.

FOURMILLER, Fr. to swarm with.

La France fourmille en braves soldats—France swarms with brave soldiers.


FOUR de campagne, A field oven.

FOUR, a place of confinement in Paris to which vagabonds and persons who could not give any satisfactory account of themselves were committed; and when once shut up had their names enregistered, and were enlisted for the service of the old French government. A few in this accommodation of the term means a room arched over without having the least aperture to receive day light. There were several such places of confinement in Paris. They owed their invention to Monsieur D'Argensan, and were supposed to add annually two thousand men at least to the king's regular army; by which means the capital was relieved from a multitude of thieves, pick-pocketers, &c.

FOURNITURES des vivres, Fr. See STORES, &c.

FOYER, Fr. Focis, or centre of the chamber. See MINES.

FAISSE, in fortification, a kind of stakes or palisades placed horizontally on the outward slope of a rampart made of earth, to prevent the work being taken by surprise. They are generally 6 ft. long, and about 6 inches thick. When an army intrenches itself, the parapets of the refrenchements are often felled in the parts exposed to an attack.

FOURGON, Fr. a sort of waggon. It likewise signifies a poker.
Fraiser, Fr. To plain, knead or drill. In a military sense to fraise or fence; as fraiser an battalion, is to fence or fence all the musketry-men belonging to a battalion with pikes, to oppose the irruption of cavalry should it charge their line and plain. At present it means to secure a battalion by opposing bayonets obliquely forward, or cross-ways in such a manner as to render it impossible for a horseman to act against it.

Fraiser, Fr. See Fraiser an adopted English form.

Franques, Fr. . . . Les campagniers franchises, free companies, were bodies of men detached and separated from the rest of the army, having each a chief, or commandant. They consisted chiefly of dragoons, butters, &c. and their peculiar duty was to make irruptions into an enemy's country; and may not improperly be called land pirates, as their chief occupation was to harass and plunder the enemy and his adherents, in what way manor they could, without paying any regard to military forms. The persons who compose these corps were termed partiens. They always accompanied the main army in time of war, and distributed among the different garrison towns in France during peace. They were common to every power in Europe; the Pansours and Hulans were of this description. They were the worst affictions of war; and generally fatal to their friends as to their enemies.

Fray, a battle, combat or duel.

Friction, in mechanics, the rubbing of the parts of engines and machines against each other, by which a considerable part of their efficacy is destroyed.

It is hardly possible to lay down general rules for computing the quantity of friction, because it depends upon a multiplicity of circumstances, as the structure, firmness, elasticity, &c. of bodies rubbing against each other. Some authors make the friction upon a horizontal plane, equal to 1/3d of the weight to be moved; while others have found it to be considerably less. But however this be, the doctrine of friction, as ascertained by the latest experiments, may be summed up in the following manner.

1. When one body rests on another upon a horizontal plane, it presses it with its whole weight, which being equally reacted upon, and consequently the whole effect of its gravity destroyed by the plan, it will be absolutely free to move in any horizontal direction by any the least power applied thereto, provided both the touching surfaces be smooth.

2. But since we find no such thing as perfect smoothness in the surfaces of bodies, arising from their porosity and peculiar texture, it is easy to understand, that when two such surfaces come together, the prominent parts of the one will, in some measure, fall into the concave parts of the other; and therefore, when a horizontal motion is attempted in one, the fixed prominent parts of the other will give more or less resistance to the moving surface, by holding and retaining its parts; and this is what we call friction.

3. Now since any body will require a force equal to its weight, to draw it over a given obstacle, it follows that the friction arising to the moving body, will always be in proportion to its weight only, and not to the quantity of the surface, by which it bears upon the resisting plane or surface. Thus if a piece of wood 4 inches wide, and 1 thick, be laid upon a smoother piece of the same wood, it will require the same weight to draw it alone, whether it be laid on its broad or narrow side.

4. For, though there be 4 times the number of touching particles on the broad side (cretis paribus) yet each particle is pressed with only 1/4th of the weight, that those are on the narrow side, and since 4 times the number multiplied by one fourth of the weight, it is plain the resistance is equal in both places, and so requires the same force to overcome it.

5. The reason why friction is proportional to the weight of the moving body, is, because the power applied to move the body must raise over the prominent parts of the surface on which it is drawn; and this motion of the body, as it is not upright, will not require a power equal to its whole weight, but being in the nature of the motion on an inclined plane, FRI will only require a part of its own weight, which will vary with the various degrees of smoothness and asperity, which it is found by experiment, that a body, may be drawn along by nearly 1 3d of its weight; and if the surfaces be hard and well polished, by less than 1 3d part; whereas, if the parts be soft or rugged, it will require a much greater weight.

The ingenious Mr. Emerson, in his principles of Mechanics, has given the following rules deduced from experiments, but they require some variation under different circumstances, which must be left to the judgment of the artist.

1. Wood and all metals, when greased, have nearly the same friction; and the smoother they are, the less friction they have; yet metals may be so far polished as to increase friction by the cohesion of their parts.

2. Wood slides easier upon the ground in wet weather than in dry, and easier than iron or steel running in brass, makes the least friction of any. In wood acting against wood, grease makes the motion twice as easy, or rather 2-3d's easier. Wheel-races, greased or tared, go 4 times easier than when wet.
Metals oiled make the friction less than when polished, and twice as little as when unpolished.

In general, the softer or rougher the bodies, the less or greater their friction but if it be rough, the friction is little less than when polished, and twice as little, than when polished.

Upon the same supposition, other soft wood upon soft wood very smooth, the friction is about 1/4 of the weight of it; but if it be rough, the friction is little less than one half the weight.

Polished steel moving upon steel or pewter, 1/4 of the weight; moving on copper or lead, 1/5 of the weight; on brass, 1/3 of the weight. Metals of the same sort have more friction than others of different sorts.

The friction, ceteris paribus, increases with the weight almost in the same proportion. The friction is also greater with a greater velocity, but not in proportion to it, except in very few cases. A greater velocity also causes somewhat more friction, with the same weight and velocity; yet friction may sometimes be increased by having too little surface to move on, as upon clay, &c., where the body sinks.

3. The friction arising from the bending of ropes about machines, differs according to their stiffness, the temper of the weather, degree of flexibility, &c., but, ceteris paribus, the force or difficulty of bending a rope is as the square of the diameter of the rope, and its tension, directly, and the diameter of the cylinder or pulley it goes about, reciprocally.

A rope of 1 inch diameter, whose tension or weight, drawing it is 5 pounds, going over a pulley 3 inches diameter, requires a force of 1 pound to bend it.

4. The resistance of a plane moving through a fluid is as the square of the velocity; and put $V = \text{velocity in feet in a second}$, it is equal to the weight of a column of the fluid, whose base is the plane, and height $h$.

And in a globe it is but half so much.

5. As to the mechanic powers, the single lever makes no resistance by friction; but if, by the motion of the lever in lifting the fulcrum, or place of support, be added further from the weight, the power will be decreased thereby.

6. In any wheel of any machine, running upon an axis, the friction on the axis is as the weight upon it, the diameter of the axis, and the angular velocity.

7. In the pulley, if $f$, $g$, be 2 weights, and $q$ the greater, and $\tan\theta = \frac{\alpha}{\beta}$, then $\frac{f}{g}$ is the weight upon the axis of the single pulley; and it is not increased by the acceleration of the weight $q$, but remains always the same.

The friction of the pulleys is very considerable, when the sheaves rub against the blocks; and by the wearing of the holes and axles.

The friction of the axis of the pulley is as the weight $w$, its angular velocity, the diameter of the axis directly, and the diameter of the pulley inversely. A weight of 100 pounds, with the addition of 50 pounds, will only draw up 500 with a tackle of $\frac{1}{3}$ and 1/3 pounds over a single pulley will draw up only 14 pounds.

8. In the screw, there is a great deal of friction: those with square threads have more friction than those with square threads; and endless screws have more than either. Screws, with a square thread, raise a weight with more ease than those with a sharp thread.

In the common screw the friction is so great, that it will sustain the weight in any position given, when the power is taken off, and therefore the friction is at least equal to the power. From whence it will follow, that in the screw, the power must be to the weight or resistance, at least as the perpendicular height of a thread to the circumference described by one revolution of the power; if it be able to raise the weight, or only sustain it. This friction of the screw is of great use, as it serves to keep the weight in any given position.

9. In the wedge, the friction is at least equal to the power, as it retains any position it is driven into; therefore in the wedge, the power must be to the weight at least as twice the base to the height, to overcome any resistance.

10. To find the friction of any ensign, begin at the power, and consider the velocity and the weight at the first rubbing part; and estimate its quantity of friction by some of the foregoing articles, then proceed to the next rubbing part, and do the same for it, and so on through the whole.

And note that something more is to be allowed for increase of friction by every new addition to the power.

FRILL. An ornamental appendage to the skirt which officers and soldiers generally wear with regimentals. A small aperture is usually made at the top to admit the hook and eye of the uniform coat. Detached frills for the privates are certainly preferable to those which are fixed to the skirts, as three per week, at the regular times allotted for a change of linens, would answer every purpose of cleanliness.

FRISE, Fr. See CHAUVET & FREIS. FRISKUTTER. An instrument made of iron, and used for the purpose of...
The barrs through which the upright
bars past mus	be twelve feet in length,
and the upright bars that go through the
beam must be of that length, so that when
one of these iron friscutters is let down
into an haven or river, the perpendicular
bars pass must be twelve feet in length,
into an haven or river, the perpendicular
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FUMIGATION, the act of fumigating or conveying smoke into any confined place.

The frequent fumigation of every ship on which troops, or prisoners of war are embarked, is deemed highly material, in order to prevent mischief from confined air. The materials for fumigation may be brimstone with saw dust; or the brimstone may be thrown over hot cinders. Nitre, to which a little vitriolic acid is added, or common salt, with the same addition of vitriolic acid. Gun-powder wetted, or the heated logwood in the pitch pot.

This operation should always be performed under the immediate eye of the medical officer on board, to prevent improper quantities of the articles being used.

FURNACE. See Stock Purse.

FUNERAL. See BURIALS.

FUNNEL, any pipe or passage of communication from one place to another.

FURL, in regard to military flags or colors, is opposed to their exposure; and is used, to express the act of folding them so as to be case.

FURLOUGH, a leave of absence.

Every non-commissioned officer and soldier who obtains leave of absence from his regiment must be provided with a proper voucher to satisfy the commanding officer of any place or party, that he has the sanction of his superiors to pass and repass within a given period.

The following is an eligible form:

According to the authority vested in me by law, I —— lieutenant colonel —— quartered at —— do issue the following.

Permit the bearer —— private —— in the above regiment and in captain —— to pass to —— in the state of —— county of —— for the space of —— ending the —— and then to return to —— as no excuse will be taken but that of sickness, for his over-staying his furlough; and that he be certified by an officer of the army, or civil magistrate; he being as becometh. He is —— feet —— inches high, —— years of age, —— complexion, —— hair, —— eyes, &c.

All soldiers found half a mile from a camp or garrison, going towards an enemy's country, or quarters, without a pass, are deemed and treated as deserters.

FURNACE. In a general sense, means all sorts of moveables made use of for the comfort, or decoration of a house. In a military sense it applies to certain articles which are allowed in barracks, to which are added household utensils, according to the number of rooms.

By the British regulations, commissioned and warrant officers' rooms of cavalry and infantry are to have a closet, 1 table, 5 chairs, a coal box, coal tray, bellows, fire irons and 1 pail.

Non-commissioned officers and private men's rooms of cavalry and infantry are to be furnished with bedside tables, matresses, or paillasses, bolster, blankets, shertts, rings, round towel, closet or shelves, 5 table, rack for arms, set of fire irons, a forsk and three forms.

The following utensils are also allowed for each room: 2 iron pots with wooden lids, 2 pair of iron pot hooks, 2 iron trivets, 2 wooden ladles; an iron flesh fork, and a frying-pan, 2 large bowls or platters, 6 small b-wls or porringers, 8 trenchers 20-30 spoons for cavalry rooms; 12 of each of the three last articles for infantry rooms; a water bucket, coal-tray, candlestick, tin can for beer, large plating pan for meat, box or basket for carrying coals; 2 drinking horns; a wooden urinal, brown and map.

The guard rooms of cavalry and infantry are furnished with a water bucket, candle-stick, tin can for beer, drinking horns; also with fire irons and a coal-tray, from 1st Sept. to 1st May, when they are to be taken into store.

The rooms of the quarter masters and sergeants of cavalry, and the se-jent major, and quarter master sergeant of infantry, to be furnished with the necessary bedding and utensils, in the same manner as is allowed to the soldiers' rooms.

Each stable of cavalry for 6 horses is provided with 2 pitchforks, 2 shovels, 1
latten, 1 wheel-barrow, 2 water buckets; and allowed 4 brooms per month.

FUSE, in artillery, are chiefly made of very dry beach wood, and sometimes of horn-beam taken near the root. They are turned rough and bored at first, and then kept for several years in a dry place. The diameter of the hole is about 4/8 of an inch; the hole does not go quite through, having about 1-4 of an inch at the bottom; and the head is made hollow in the form of a bowl.

The composition for fuses is, saltpetre 3, sulphur 1, and mealed powder 3, 4, and sometimes 5. This composition is driven in with an iron driver, whose ends are capped with copper, to prevent the composition from taking fire; and to keep it equally hard; the last shovel-full being all mealed powder, and 2 strands of quick match laid across each other, being driven in with it, the ends of which are folded up into the hollow top, and a cap of parchment tied over it until it be used.

When these fuses are driven into the loaded shell, the lower end is cut off in a slope, so that the composition may in flame the powder in the shell. The fuse must be of such a length as to continue burning all the time the shell is in its range, and to set fire to the powder as soon as it touches the ground, which occasions the shell instantly to burst into many pieces.

When the distance of the battery from the object is known, the time of the shell's flight may be computed to a second or two; which being ascertained, the fuse may be cut accordingly, by burning two or three, and making use of a watch, or astring by way of a pendulum, to vibrate seconds.

Fuses, according to the French acceptation of the word, is applied to various purposes, and belongs to various instructions of destruction which are used in war. The fuse is differently made by different artificers. Some make it consist of one pound of gunpowder, and two or three ounces of charcoal well mixed together; others of four pounds of gunpowder, two of saltpetre, and one of sulphur. It must be generally remarked, that though a bomb or grenade, will take to burst after it has been thrown out of the mortar, must depend entirely upon the length and quality of the fuse.

Fuses à bombes, Fr. bomb fuses. The intent and object of these fuses, are to communicate fire to the gunpowder, with which the bomb is filled, in order to force it to burst and separate in broken pieces on any given spot. These fuses are usually made in the shape of a wooden pipe or tap, out of the 1 inch tree, the alder, or any other dry and solid wood, and are afterwards filled with a slow combustible composition. The nature, quantity, and mixture of these materials are (each separately) first passed through a silk sieve, and after they have been well mixed together, the whole mass is thrown into a moderate sized hair sieve, and a sieve passed through.

The fuse is gradually filled with this composition, each proportion being well pressed in, without violence. Iron rams, fitted to the bore of the fuse are used for this purpose. Every time the materials are poured in, the ramrod is in and out, and by means of a small mallet, with which it is struck 14 or 15 times, the composition is pressed into a hard consistence. When fuses have been well loaded, and the materials have previously been properly mixed, they will naturally burn with an equal steady fire, preserving in the...
In general an even length of flame, without spitting or irregularly shaking.

In order to preserve fuses for a length of time, the composition, when thoroughly prepared, must be covered with a mass of cement made of 3/5s bees-wax and 1/5s resin, well mixed together. Bomb fuses prepared in this manner, will burn, either in water, or in earth, nearly 70 seconds, without being extinguished. If the usual method of priming fuses, is to grate about one third of a French inch of composition. Two small matches about 5 or 6 inches long, with the ends bent inwards, are then well fixed with pounded composition to the eye of the fuse, by which last operation it is completely filled and closed. This part is finally covered over with cartridge paper.

Bomb fuses prepared in this manner, will permanently set in the bomb when it lies in the mortar. The particular object to be obtained from this sort of fuse, is to prevent the least trace of fire or light being visible in its projection; so that the enemy may remain ignorant of the range, or direction of the bomb, and not be able, of course, to get out of the way when it falls, or to avoid the effects of its explosion.

These fuses were made use of at the siege of Han in 1790. The experiments which were made in 1792, with this composition, by an artificer belonging to the ordnance-board at Douay, have proved, that it answers every purpose for which it is invented.

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Add to this, that independent of the confusion which is occasioned among the assailants by repeated projectiles, the bombadrier by means of the lighted fuses, is enabled to correct his aim during the darkest night. The same principles must certainly hold good in attacks; and from a conviction of their solid utility in both instances, the common fuses have been hitherto adopted, although the kind in question has been known for several years.

Fuses for grenades. These fuses are made of the same quality of wood as those adopted for bombs. Their length is 2 inches 6 lines; their diameter at the head is 10 lines; 7 lines in diameter 1 inch from the head, and 2 lines in diameter to the sight or aperture. The composition of these fuses consists of 5 parts of pounded gunpowder, 3 parts of sulphur, and 3 of salpetre; of 3 parts of priming powder, 2 of salpetre, and one of sulphur.

These fuses must be loaded with the
tame care and precision as are required in bomb-charges. That is, the thick end of the fuse must be placed downwards, so that it stands upright; the composition must then be introduced by means of a trundlet, which the French call l'antidote, made for that specific purpose; the composition must then be split the fuse. When the fuse has been half filled, a shorter ramrod must be used, with which the charge is completed. In making bomb-fuses great care must be taken to strike equal blows with the ramrod, which is推荐 by the writer of Mélange Militaires, as being extremely useful in the rear of a battalion, or in detached bodies that are stationed for the defence of baggage, &c. Great precaution must be observed during this operation, as too much violence might split the fuse. When the fuse has been half filled, a shorter ramrod must be used, with which the charge is completed. In making bomb-fuses great care must be taken to strike equal blows with the ramrod, which is recommended by the writer of Mélange Militaires, as being extremely useful in the rear of a battalion, or in detached bodies that are stationed for the defence of baggage, &c.

Something similar to this invention has been adopted by the disbanded light horse volunteers in London, who have in addition temporary sword hilts made to fit the sockets of their bayonets.
been in the habit of running away.

Sulphur, Salt pet.

Fusil or musquet. At present, a musket, made of oak, with a cylin.

dar form, having different dimensions, according to what purpose it is used for.

The length of a French fusil was directed to consist of three French feet eight inches from the touch-hole to the muzzle, and taking twenty to the pound.

Fusileers, exclusive of grenadiers who GA810N, in fortification, is a kind of

GABION, in fortification, is a kind of basket, made of outer twigs, of a cylindrical form, having different dimensions, according to what purpose it is used for.

To find the length of Fuzes for any Range.

The 13 and 10 inch fuzes of the same length burn so nearly equal, that the common length answers both, as do the 8 inch, 5-1-2 and 4-2-3. Therefore, to find the length of fuzes for any range, multiply the time of flight by 22 for the 13 and 10 inch, and by 24 for the 8-5-1-2 and 4-2-3; which is the decimal part of an inch a fuz burns in a second. Fuzes are thought to keep better by being painted; and for field service, are often marked off by black lines into seconds and 1-2 seconds.

FUZES. Composition.

- Sulphur: 1
- Salt pet: 3 lbs. 4 ozs.
- Mealed powder: 2 lbs. 12 ozs.

Thickness of wood at bottom of the bore, 2 diameters.

To find the length of Fuzes for any Range.

Diameter inside the cup is 3 diameters of the bore.

Depth of the cup 1-1-2 do.

Diameter at the top, at the bottom, below the cup, and at the ends, 1 inch.

Kind: Smallest, next, medium, and largest, graduated in 1 inch, and 1 foot, between the ends.

Drive by one man in 1 day.

Time to kill, 1 man.

Length, time.

Diameter, at the cup, at the bottom.

Fuse Diameter, time.

Diameter at the cup, at the bottom, below the cup.

Kind, time.
Galeries, a sort of cover for the leg, is frequently used in a military costume. When gaiters are built of mason-work, their height is from five to six feet, their breadth from three to four, and sometimes only three. When gaiters are made of pieces of linen, with which the vane is tied to the staff: when gaiters are made of cloth, and are either long, as reaching to the knee, or short, as reaching to the ankle; the latter are termed half-gaiters.

Gaffes, the steel lever with which the ancients bent their cross-bows.

Gaines, in mining differ from counter-mines, in as much as that they are supported by gaffs resting upon frames, which are covered with earth three feet in depth; that is, two feet and a half from one frame to another. These galleys are usually built three feet and a half high, and two and a half broad, and whenever there is a necessity to work in the ramass, or arraignees, the galleries in that case are reduced to smaller proportions.

Galeries de fond, Fr. galleries in mining signify any covered avenue or gallery which is parallel to the magistral or principal line of the place, and exists under the whole or part of the front of the fortifications. This gallery is usually as thick as the enemy's mason-work against which the counter-mine is directed. By means of this work, the besieged generally endeavor to intercept every attempt which the besiegers may make in the passage of the fossé or ditch.

Galeries a passer un fossé, a gallery constructed for the purpose of crossing a ditch. It is a small passageway made of timber-work, having its beams or supports driven into the bottom of the ditch, and being covered at top with boards that are again covered with earth, sufficiently strong to bear the miner, and to withstand the effect of artificial fire, or the weight of stones which the enemy might direct against them. This sort of gallery is sometimes called the traverse, or cross way.

These galleries have been out of use for some years. The miner sets at the body of the place which is attacked, either through a subterraneous gallery that is dug beneath the ditch, when the nature of the ground will permit the attempt,
or under cover of the epaulement, which covers the passage of the ditch. When the ditch is full of water, and the mine has made considerable progress under it, he instantly makes the best of his way to the breach, either by swimming, or by supporting his body on a raft of timber; as soon as he has reached the spot, he works into the earth among the ruins of the wall, and completes the object of his enterpise.

Galerie de communication, Fr., are subterraneous galleries, by means of which, the garrison of a besieged town or place may, without being perceived by the enemy, communicate from the body of the place, or from the counterscarp, with the different outworks.

Galeries souterraines des anciens, Fr. Subterraneous galleries as originally invented by the ancients. The author of the Doctrinaire Militaire in his last edition of that work enters upon the explanation of these galleries by the following curious assertion.

"I must, he observes, in this place, assert with the chevalier Folard, that it would be absurd to deny the superiority which the ancients possessed over us in the essential knowledge and requisites of war, and that they pushed the different branches of that science to as high a pitch of perfection as it was possible to raise it.

"The only inventions which the moderns can boast of, are those of fire-arms, mines, and furnaces. But then, on the other hand, we stand indebted to them for our lines of circumvallation and of contravallation, our approaches or trenches which are directed from a camp to its different batteries, together with the construction of those batteries; our parallel entrenchments or places of arms, the descent into, or the filling up of the ditch, our covered saps in mining, and our open galleries; we owe to them, in fact, the original art of throwing up works and of creating obstacles, by which we are enabled to secure ourselves, or by various stratagems to annoy our enemies. The ancients were indeed superior to us, in the means of defence.

"The origin of subterraneous galleries or passages in mining, is totally unknown to us; a circumstance which proves their antiquity. We read in the History of Josephus, that the Jews frequently made use of them; so that neither the Greeks nor the Romans, who, in many instances arrogate to themselves the exclusive glory of invention, were the authors of this discovery.

"The method which was pursued by the ancients in their passages of mines, resembled the one that is invariably followed by the moderns. But the latter possess a considerable advantage over the former, in this sort of attack and defence, which advantage consists wholly in the invention of gunpowder.

"The ancients, it is well known, could only undermine in one way; namely under the terraces or cavaliers, or under the towers and batteries; fortiss belliherae; and in order to do any execution, they were obliged, in the first place, to construct a spacious high subterraneous chamber, to carry away and raise the earth, to support the remainder by powerful props, and afterwards to fill the several chambers with dry wood and other combustible materials, which were set fire to in order to dissolve the earth and other machines that were placed above, into one common heap of ruins. But this attempt did not always succeed; for owing to the magnitude of the undertaking and the time it required, the enemy might either trace the mine off their communication with the main body of the place, or get into the chambers before they could be finished, or be properly prepared for inflammation.

"The ancients constructed their galleries on a larger scale than we adopt. They were wider, but less elevated; whereas those that we use require less trouble; our chanber mines being more contracted, and having an advantage of access by means of the different branches. On or two small chambers are sufficient with us, to blow up the whole face of a bastion. But the ancients only supposed in proportion to the extent of wall which they were determined to demolish. This was a tedious operation; for when the besieger had reached the foot of the wall, it became necessary to run a gallery along the whole extent of what he proposed to demolish. Subsequent to this, he had to operate upon the entire front, during which the besieged found time and opportunities to open subterraneous passages, and to discover those which the assailants were practising against them. In the latter, indeed, they seldom failed.

"The Romans were extremely partial to subterraneous galleries. By means of these secret passages they took Sidon, and Veii; and Darius, king of Persia, by the same method took Chalcedon. That species of gallery which is run out under the soil of an encampment, and pushed forward into the very heart of a town, has been known from time immemorial. The Gauls were likewise very expert in their management of subterraneous galleries. Caesar mentions the use of them in five or six places of his Commentaries."

Galerie de portoir, Fr., in architecture, a sort of gallery which is raised either in the inside, or on the outside, and surrounds the whole or part of a building.

Galea, a low built vessel for the conveyance of troops and stores, having both sails and oars.

Galion, a name which was formerly given to French ships of war that had three or four decks. The term
are placed upon a false deck which is made in the hulk. Chevalier Renau first invented this species of naval battery, and submitted it to the French government. The Day of ALCHEMIST, having adopted to strike terror into the barbarians, would be bombard their capital, and thus, he knew, could not be done, except from the decks of ships. His proposal was at first treated with extreme neglect, and was considered in full council, as the project of a visionary millionaire.

This disheartening circumstance, however, (which as Monsieur Belidor has very justly remarked, almost always attends original plans and inventions) did not check the warm mind of Chevalier Renau. His known abilities had secured some powerful patrons in his favor, and the French government at last consented, that he should construct two galiotes à bombes at Dunkirk, and three at Havre de Grace. Having completed them, he sailed for Algiers; and after having braved the most tempestuous weather, got before the place, with five vessels of that description. The town was bombarded during the whole of the night; and so great was the consternation of the inhabitants, that they rushed out of the gates, to avoid the dreadful effects of so unexpected an attack. The Algerians immediately used peace, and as M. de Fontenelle has shrewdly remarked, the Chevalier Renau returned to France, with his galiotes à bombes, having obtained a complete triumph, not only over the Algerines, but over the petty cavillers against his invention.

Orders were instantly issued to construct others after the same model, and the king gave directions, that a new corps of artillery officers should be formed, for the specific purpose of doing duty on board the galiotes or bomb-ketches.

GALLERY, a passage of communication to that part of a mine where the powder is lodged. See Gallez.

GALLIVATS are large row-boats, used in India. They are built like the galiotes, but of smaller dimensions, the largest rarely exceeding 70 tons; they have two masts, of which the mizzen is very slight; the mizzen mast bears only one sail, which is triangular and very large, the peak of it, when hoisted, being much higher than the mast itself. In general the gallivats are covered with a spar deck, made for lightness of bamboo split, and these carry only portholes, which are fixed on swivels in the gunnel of the vessel; but those for the largest size have fixed deck, on which they mount six or eight pieces of cannon, from two to four pounders; they have forty or fifty stout oars, and may be rowed four miles an hour.

GALLOPER, a piece of ordnance of small caliber.

GAMACHE, Fr. See Gaiters.

GAMBESON, Fr. A term which the French formerly applied to a coat of mail that was worn under the cuirass. In it was likewise called cotte gambesone. It was made of two strong cloths interwoven with pointed worsted.

GAMBLING. Every species of chance play, such as hazard, &c. should be strictly forbidden in the army. The non-commissioned officers and private soldiers are severely punished when found guilty of this mischievous practice; and in some services the officers are treated with equal severity.

GAMELLE, Fr. A wooden or earthen bowl used among the French soldiers for their messes. It generally contained the quantity of food which was allotted for three, five, or seven men belonging to the same room. The porridge-pots for the common mess, and they were frequently punished for slight offences by being sent to the gamelle, and excluded their regular mess, and put upon short allowance, according to the nature of their transgression.

GANTELET, Fr. See Gauntlet.

GANGET, Fr. See Gauntlet.

GANGES, a considerable river in India in Asia. It rises in the mountains which border on Little Tibet, in 82° 15' of east longitude, and 32 degrees 45 minutes of north latitude. According to the ingenious author of the History of Hindostan, it disembogues itself into that country through a passage called the staits of Kupela, which are distant from Delhi, about 30 leagues, in the longitude of 90° 2'. These straits are believed by the Indians, who look very little abroad, to be the sources of the Ganes; and a rock 15 miles distant from them, bearing some resemblance to the head of a cow, has joined in the same part of the country two very important objects of their religion; the grand image of the animal, which they almost venerate as a divinity, and the first appearance of that immense body of holy water, which is to wash away all their sins.

GANTLET, in ancient military history, a large kind of glove, made of iron, and the fingers covered by small plates: it was formerly worn by cavaliers, or single captains of war, when armed at all points, but is now in disuse.
GANTLET or garrotte, denotes a kind of military punishment, in which the criminal running between the ranks receives a lash from every man. See RUSE.

GAR See ADJACENCY.

GAR, the general term used by the Saxons, for a weapon of war.

GARCON, Major, Fr. an officer so called in the old French service. He was selected from among the lieutenants of a regiment to assist the lieutenants in the general detail of duty.

GARDE d'une Place, Fr. the garrison of a place. See GARISON.

GARDES de corps, Fr. the grand guard of an army. Guards is the old French service were usually divided into three sorts: Guard of Honor, Fatigue Guard, and the General's Guard. That was called a guard of honor in which the officers and men were most exposed to danger, for the preservation of military honor is to be often in peril, and either to fall courageously in the discharge of duty, or to return from the field after having exhibited proofs of valor, prudence and perseverance. A fatigue guard belonged to a garrison or to a camp. A general's guard was mounted before the door or gate of the house in which the commanding officer resided. For a more specific account of guards in general, see GUARD.

GARDES de la garde, Fr. the body guards. Under the old government of France, they consisted of a certain number of gentlemen or cavaliers whose immediate duty was to attend the king's person. They were divided into four companies, under as many captains, whose tour of duty came every quarter. They took rank above the Gens-d'armes and the king's light cavalry.

The first and most ancient of the four companies was called the Scotch company. In 1423 Charles VII of France established this body of gentlemen or cavaliers, for the purpose of shewing the great confidence which he placed in the Scotch; who were not a little astonished for this mark of distinction to the service which their countryman Lord Buchan, eldest son to the Duke of Albany, rendered the French in 1421 at the battle of Bannq en Artois, where the English army was completely routed. In order to preserve the remembrance of their behaviour, and in token of their gratitude to the Scotch nation, the French king gave orders that whenever the roll-call took place in the Scotch company, each individual instead of answering Me voilà! should say Ami voilà! (instead of love.)

GARDES-foins, Fr. wooden cases or boxes used to hold cartridges.

GARDES-four, Fr. the tails of a bridge.

GARDE IMPERIAL, Fr. The only guard of honor which at present exists in France.

GARDES FRANÇAIS, Fr. the French Guards. In 1563 Charles IX. King of the French, raised a regiment for the immediate protection of the palace. The colonel of the garde françaises was on duty throughout the year, and was entitled to the lieutenant de commandement in common with the four captains of the body guards. Peculiar privileges were attached to every officer belonging to this body. No stranger, not even a native of Strasburg, Savoy, Alsace, or Piedmont, could hold a commission in the French guards. The age at which men were enlisted was above 18 and under 50 years. The height of French feet 4 inches and upwards. The sergeants were strictly forbidden to exercise any trade or business, and many of them got the Cross de St. Louis.

In the revolution of 1789, the French guards took a very active and leading part.

GARDES-MAGAZINS, Fr. In the old French service there were two sorts of magazine guards—one for the military stores and the other for the artillery. The first was subject to the grand master, and the second was appointed by the secretary at war.

GARDE-général d'artillerie, Fr. An officer was so called under the old government of France, who had charge of all the ordnance and stores belonging to his majesty for the last service. He gave receipts for all ammunition, &c., and his bills were paid by the treasurer general of the artillery.

GARDES PREVULCNCENS, Fr. Provincial guards, were persons appointed to superintend, take charge of, and be responsible for the artillery belonging to Paris, Metz, Chalons, Lyons, Amiens, Nantoum, and Calais.

GARDES PARTICULIERS DES MAGAZINS D'ARTILLERIE, Fr. Officers appointed by the grand master of the ordnance for the specific purpose of attending to the ammunition, &c. Their pay was in proportion to the quantity of stores with which they were entrusted. They enjoyed some particular privileges, and were lodged at the expense of government.

GARDES MAGAZINS D'UN ARSENAL DE MARINE, Fr. An officer in France appointed to take charge and to keep a register of all warlike stores, &c., for the service of the navy.

GARDES de la porte, Fr. A company so-called during the monarchy of France, and of so ancient a date, indeed, with respect to original institution, that it appears to have been coeval with it. Mention is made of the garde de la porte in the oldest archives or records belonging to the king's household, in which service they were employed, without being responsible to any particular treasurer or other companies were.

This company consisted of one captain, four lieutenants, and fifty guards. The captain and officers received their commissions from the king. The first took an oath of fidelity to the king in person,
and received the _katton_ from his hands. The duty he did was purely discretionary, and depended on his own will. The lieutenants served by detachment, and took their tour of duty every quarter. Their specific service consisted in guarding the principal apartments belonging to the king's apartments. Their guard-house was within the palace, which they occupied from six o'clock in the morning until six in the evening; when they were relieved by the body guards. They delivered the keys to a brigadier belonging to the Scotch garrison.

**Gardes Suisses**, Fr. The Swiss guards. This body originally consisted of a certain number of companies which were taken into the French service in consequence of the close alliance that subsisted between the Swiss cantons and France; but they were not distinguished from other troops by the appellation of guards, until a considerable period had elapsed from their first establishment. The zeal, fidelity, and attachment which they uniformly evinced whenever they were entrusted with this distinguished part of the service, induced the crown in 1616 to bestow upon them this additional name.

The regiment was composed of twelve companies of two hundred effectives each. Some consisted of half companies complete in men. They were commanded by the following officers, subordinate to each other, and created in 1659, viz. One colonel general of the nation, one colonel general of the regiment, and one lieutenant colonel. The Swiss guards received double the pay which was given to the French guards. It is somewhat remarkable that one hundred and three years after the regular establishment of the regiment under the three mentioned field officers, this brave body of men should have fallen victims to their attachment to the monarchy of France. On the 10th of August, 1792, they withstood the Parisian populace, and defended the palace in the Louvre until almost every man was killed. During the resistance which the Swiss guards made, Louis the XVIth, with his family escaped, and took shelter in the national assembly.

**Gardes (tent) Suisses du corps du Roi**, Fr. One hundred Swiss guards immediately attached to the king's person. They were a select body of men who took an oath of fidelity to the king, and were formed into a regular troop. Louis XIV. during several sieges which he personally attended, gave directions, that the head of the trench should be guarded by a detachment of this troop; so that the hundred Swiss guards might properly be ranked as military men, although their officers did not wear any uniform, and in the last periods of the monarchy of France, the principal duty of the hundred Swiss guards consisted in domestic and menial attendance.

**Gardes qui monte**, Fr. The new guard. **Gardes qui descend**, Fr. The old guard. **Gardes ordinaires des lieute**, Fr. ordinary guards. **Gardes de la tranche**, Fr. Guard for the trenches. Among the French, this guard usually consisted of four or six battalions. It was entrusted to three general officers, viz. one lieutenant general on the right, one major general on the left, and one brigadier general in the centre. All general officers, when on duty for the day in the trenches, remained the succeeding night, and never left them until they were regularly relieved by others of their own rank.

When it came to the turn of any particular battalion to mount the trench, it was the duty of the major of that battalion to examine the ground on which it was to be drawn up, to look at the piquets, and to see where the grenadiers were posted, in order to go through the relief with accuracy and expedition.

The battalion was drawn up in front of the camp; the grenadiers being stationed on the right, next to them the piquet, and on its left flank the body of the battalion. The latter was divided into different piquets, and formed in such a manner, that the whole battalion was separated into troops or companies, each consisting of forty eight men, promiscuously thrown together.

The advantage which was derived from this disposition of the battalion, and from its having been previously told off according to each company's roster, is manifest; for when a second or third battalion piquet was wanted in the trenches, the different detachments were already formed without going into the small detail of companies. The officers in conformity to their roster were ordered to march, and the piquet moved out without a moment's delay.

Add to this that whenever it was found necessary to make a sortie, the loss of men did not fall upon one company, but was divided among the whole battalion.

A general rendezvous or parade was fixed for all the regiments who were to do duty in the trenches; they assembled in that quarter, and were drawn up in line, with all the grenadiers on the right, and the whole of the piquets upon the same alignment. At the hour appointed the latter began to file off, and each regiment followed according to its seniority.

The lieutenant general whose tour of command was in the trenches, placed himself at the head of those troops who were to attack from the right; the major general at the head of those belonging to the left, and the brigadier general took the centre; the oldest regiment headed the
right, the next in seniority stood in front of the left, and the third preceded the centre.

As soon as the troops reached the tail of the trench, the men were formed into Indian files, or rank entire, and each one took his post. Sentinels were stationed, and the necessary detachments were made. The colors were planted upon the parapet of the trench. At night the adjutants of corps went to head quarters, to receive instructions relative to the projected attack, and got the parole and countersign from the general. The senior adjutant communicated his orders to the rest, who conveyed the same, first to their several colonels, and afterwards to the sergeants of each regiment.

When on duty in the trenches, soldiers must not, on any account, quit their arms; and the instant the least noise is heard, it is their duty to throw themselves upon the back of the trench, and remain till the order is given to march. When an attack is directed to themselves upon the back of the trench, and arms; and the instant the least noise is heard, they must not, on any account, quit their fire-arms, but remain at their station until the prison-guard has been delivered to the besieging army. At night the adjutants of each regiment.

The colors were planted upon the parapet, and the necessary detachments were made. The colors were planted upon the parapet of the trench, the men marched by Indian files, or rank entire, and each one talons which were posted in the trenches, the main body of the corps follows with the ordinary guard, b, himself taken prisoner.

Guard du port, Fr. Guard for the security of a bridge. The same author (Frochetta) proposes that one or two sentries be posted at each end of the bridge, if it be of any length. His motive is to prevent too heavy loads from being conveyed upon it, and to check bodies of cavalry who might be disposed to gallop or trot across it. If the bridge be constructed upon barges or boats, there must always be a certain number of wooden scoops to drain off the water as it meets, or cuts through small apertures upon the surface. The commanding officer of the guard must order frequent rounds to be made, bith day and night, lest the enemy should send divers to cut under the boats and pierce the bottoms.

Forest, the historian, relates, that the Emperor Henry III. having ordered several barges to be constructed and stationed on the Danube for the purpose of storming Pozono, his project was defeated by the bold and peremptory stand of an individual, one Zarmoudi, a Hungari, having provided himself with a gimlet, swam under the surface of the water, and got beneath the boats, which he bored in several places, without the least suspicion or knowledge of the mariners. The boats gradually fell, and were finally sunk, which circumstance obliged the emperor to raise the siege.

Garde de savelleurs, Fr. A particular guard which is kept among the workmen and artificers during a siege. In France they had a particular roster among themselves; beginning from the eldest downwards, as well among the officers as among the men.

Garde receive, Fr. the guard that is relieve, commonly called the old guard. Garde de la marine, Fr. During the existence of the old French government, several young gentlemen received brevet commissions from the king, and were permitted to serve on board ships of war.
They were distributed among the fleet, and when they had acquired a knowledge of their profession, were promoted to the rank of officers. Their duty was near the admiral, who, when commanded, in person; and during his absence they were placed on board the different vessels, in order to assist the several officers, particularly in the discharge of their functions at the batteries.

_Gardes coasts_, Fr. from the Spanish gua,da costa, signifying ships of war that cruise along the coast to protect merchantmen, and to prevent the depredations of pirates.

_Gardes coasts (capitaineries)_ Fr. The maritime divisions, into which France was formerly divided, were so called.

Each division was under the immediate superintendence of a captain, named capitaine gardes-costes, who was assisted by a lieutenant and an ensign. Their duty was to watch the coast, and to attend minutely to everything that might affect the safety of the division they had in charge.

There were thirty-seven capitaineries gardes coasts in Normandy, four in Poitou, two in Guienne, two in Languedoc, and six in French Flanders, Picardy, Boulogne, Calais, &c.

The establishment of sea fencibles in Great Britain, which has taken place during the present war, most probably owes its origin to the gardes coasts.

_Gardes d'épee_, Fr. Sword-hilt.

_Garde_, Fr. Watch, guard, protection.

Corps de Garde du guet, Fr. Watchhouse or rendezvous for the street patrols.

_Garde bois_, Fr. a forest-keeper.

_Garde du corps_, Fr. Life-guard.

_Garde chasse_, Fr. a game-keeper.

_Garde plaine_, Fr. Literally means a fence, or cover against rain. This machine was originally invented by a Frenchman, who left his native country to avoid persecution or unmerited neglect, and submitted it to the Prussians, who adopted it for the use of their infantery. Other armies, however, either seem ignorant of the invention, or do not think it worthy of imitation. Blair, the author of _Elements of Fortification_, in his military dictionary, (which forms a small part of that interesting work) observes, that these machines might be rendered extremely useful in the defence of fortresses, outposts, redoubts, or retrenchments. Under the cover of them, the besieged, or the troops stationed in the posts attacked, would be able to keep up a brisk and effectual discharge of musquetry during the heaviest fall of rain, and thereby silence, or considerably damp the fire of the enemy. The garde plate is capable of being much improved. Light corps ought to be particularly anxious for its adoption, as the service in which they are generally employed, exposes their arms to every change of weather; and by means of this cover, both themselves, and their rifles, or musquets, would be secured against rain.

_Atíquer la Garde_, Fr. To make an attempt on the guard.

_Une forte Garde_, Fr. A strong guard.

_Le piquet de Garde_, Fr. A piquet guard.

_La Garde à pied_, Fr. The foot guards.

_La Garde à cheval_, Fr. The horse guards.

_La Garde Ecossoise_, Fr. The Scotch guards.

_La Garde Islandaise_, Fr. The Irish guards.

_Pouvoir monter la Garde_, Fr. To set the guard.

_Etre de Garde_, Fr. To be upon guard.

_Monter la Garde_, Fr. To mount guard.

_Descendre la Garde_, Fr. To come off guard.

_Réserver ou changer la Garde_, Fr. To relieve guard.

_La Garde montante_, Fr. The guard that mounts, or the new guard.

_La Garde descendante_, Fr. The guard that comes off, or the old guard.

_Faire monter la Garde_, Fr. To make an guard.

_Gargoüillil_, Fr. The powder with which cannon is charged.

_Gargooussier_, Fr. A cartouch, a cartridge.

_Garoussiere_, Fr. A pouch for cartridges.

_Garnir_, Fr. To line with artillery. _Un rampart garni de grande artillé­rie_, a rampart covered or lined with heavy ordnance.

_Te Garnir_, Fr. To seize.

_Garniture_, Fr. The clout or flower of the Janissaries of Constantinople is frequently sent into garrison on the frontiers of Turkey, or to places where the loyalty of the inhabitants is
doubted. The Janissaries do not indeed assist in the immediate defence of a besieged town or fortress, but they watch the motions of all suspected persons, and ar. subject to the orders of their officers, who usually command the garrison.

Garrison, in the art of war, a body of forces, disposed in a fortress or fortified town, to defend it against the enemy, or to keep the inhabitants in subjection; or even to be subs ed during the winter season; hence garrison and winter-quarters are sometimes used indiscriminately for the same thing; while at others they denote different things. In the latter case a garrison is a place wherein forces are maintained to secure it, and where they keep regular guards, as a frontier town, a citadel, castle, tower &c. The garrison should always be stronger than the town itself.

Winter-quarters signifies a place where a number of forces are laid up in the winter season, without keeping the regular guard. See Winter-quarters.

Garrison-town, generally a strong place in which troops are quartered, and do duty, for the security thereof, keeping strong guards at each port, and a main-guard in, or near the market-place.

Order of the Garter, an English order of knighthood, instituted by Edward III. This order consists of 24 knights companions, whereof the king of England is the sovereign or chief. This piece of regal mummery is not strictly military, but is inserted here as matter of curiosity.

All these officers, except the prelates, have fees and pensions. The college of the order is in the castle of Windsor, with the chapel of St. George, and the chapter-house, erected by the founder for that purpose. The habit and ensign of the order are, a garter, mantle, cap, George, and collar. The 3 first were assigned the knights companions by the founder, and the George and collar by King Henry VIII. The garter challenges pre-eminence over all other parts of the dress, because from it the noble order is denominated; that it is the first part of the habit presented to foreign princes, and absent knights, who, together with all other knights, are drawn with first adorning; and it is of such honor and grandeur, that the bare investment with this noble ensign, the knights are esteemed companions of the greatest military order in the world. It is worn on the great leg, between the knee and calf, and is enamelled with this motto, Honi soit qui mal y pense; that is, "Evil be to him, who evil thinks." The meaning of which is, that King Edward having laid claim to the kingdom of France, retorted shame and defiance upon him that should dare to think amiss of the just enterprise he had undertaken, for recovering his claim to that crown; and that the bravery of those knights whom he had elected into this order, was such as would enable him to maintain the quarrel against those that thought ill of it.

The mantle is the chief of those vestments made use of upon all solemn occasions. The color of the mantle is by the statutes appointed to be blue. The length of the train of the mantle, only, distinguishes the sovereign from the knights companions. To the collar of the mantle is fixed a pair of long strings, anciently waved with blue silk only, but now twisted round, and made of Venice gold and silk, of the color of the robe, with buttons and tassels at the ends. The left shoulder of the mantle is adorned with a large garter, and device Heni salt, &c. Within this is the cross of the order, fixed by two of the seniors, who usually command the garrison, to whom it is presented upon a velvet cushion by the garter king at arms, with the usual reverence, whilst the chancellor reads the following admonition, enounced by the statutes: "To the honor of God omnipotent, and in memorial of the blessed martyr St. George, tie about thy leg, for thy renown, this noble garter; wear it as the symbol of the most illustrious order, never to be forgotten, or laid aside; that thereby thou mayest be admonished to be courageous, and having undertaken a just war, in which thou shalt be engaged, thou mayest stand firm, valiantly fight, and successfully conquer."

The princely garter being thus buckled on, and the words of its significance pronounced, the knight elect is brought before the sovereign, who puts about his neck, kneeling, a sky colored robe, wherein is appended, wrought in gold within the garter, the image of St. George on horseback, with his sword drawn, encountering the dragon. In the mean time the chancellor reads the following admonition: "Wear this ribbon about thy neck, adorned with the image of the blessed martyr and soldier of Christ, St. George, by whose imitation thou mayest, like him, ever remaine in prosperity and adversity, that as thou hast so overpassed both prosperous and adverse adventures, that having stoutly vanquished thy enemies both of body and soul, thou mayest not only receive the praise of this transient combat, but be crowned with the palm of eternal victory."

Then the knight elect kisses the sovereign's hand, thanks his majesty for the great honor done him, rises up, and re-
GAZETTE, a newspaper. The word is derived from gazetta, a Venetian coin, which was the usual price of the first newspaper printed there, and which name was afterwards given to the paper itself.

The first gazette in England was published at Oxford, the court being then in a small half sheet, November the 7th, 1665. On the removal of the court to London, the title was changed to the London Gazette. The Oxford Gazette was published on Tuesdays, the London on Saturdays. And these have continued to be the days of publication ever since that publication has been confined to London.

All commissions in the British army, militia, fencible, and volunteer corps must be gazetted. The dates specified in the gazette generally agree in every point with those of the original commissions. So that by referring to the gazette, an officer may always know the precise day on which he is entitled to receive subsistence from the agent, and to assume rank in the British army, should an erroneous statement, however, set into the gazette, or a commission, wrong dated therein, a reference to the latter will always supersede any notification in the former.

GAZON, in fortification, as pieces of fresh earth or sods, covered with branches, and cut up in the form of a wedge, about a foot long, and half a foot thick, to line the outsides of a work made of earth, as rampsarts, parapets, banquettes, &c. The first bed of gazons is fixed with pegs of wood, and the second bed is laid as to bind the former, by being placed over its joints; and so continued till the works are finished. Both these beds are usual to sow all sorts of herbs or herbs, in order to strengthen the rampart.

GEAR, furniture, equipage, or habiliments.

GEAT, the hole through which the metal is conveyed to the mould in casting ordnance.

GEBEGIS. Armigers among the Turks so called.

GBEBELUS. Every timar is a petty king, during a campaign, is obliged to take a certain number of horsemen, who are called gebelus, and to support them at his own expense. He is directed to take as many with him as would annually cost three thousand aspers (each asper being equal to two-pence farthing English) for subsistence.

GEDL, in the English old customs, a Saxon word signifying money, or tribute. It also denoted a contribution for some crime committed. Hence segulds, in the old Saxon laws, was used for the value of a man slain; and of geld, but that of a beast.

GEBLICH. A sort of superintendent or chief of the gendarmerie, of armigers among the Turks. He is only subject to the hagbi beki, or the grand-master of the Turkish artillery.

GENDARMERIE, Fr. The gendarmerie was a select body of cavalry that took precedence of every regiment of horse in the French service, and ranked...
immediately after the king's household.  

The reputation of the gendarmerie was so great, and its services so well esti­mated by the king of France, that when the emperor Charles V. in 1552, sent a 
formal embassy to the Court of Versailles to request a loan of money, and the as­sistance of the gendarmerie to enable him to repulse the Turks; Francis I. returned 
the following answer: 'With respect to the first object of your mission, (ad­ressing himself to the ambassador) I am not a banker; and with regard to the other, as my gendarmerie is the arm which supports my sceptre, I never ex­pose it to danger, without myself stating its fatigue and glory.'

The uniform of the gendarmerie, as well as of the light cavalry, under the old French government, was scarlet, with facings of the same color. The coat was formerly more or less laced with silver according to the king's pleasure.

A short period before the revolution, it was only laced on the cuff: 'The waist­coat of buff leather, and the bandoulière of the same, silver laced; the hat was edged with broad silver lace. The horse­cloths and holster-caps were red, and the bands of the same color. The coat was formerly more or less laced with silver according to the king's pleasure. 

The soldiers who composed it were called gendarmes. And in 1792, the number was considerably augmented, consisting of horse and foot, and being indiscriminately called gendarmes; but their clothing was altered to deep blue. Their pay was greater than what the rest of the army enjoyed, and when others were paid in paper cur­rency, they received their subsistence in hard cash (en argent sonant.) They possessed these privileges on account of the proofs they were obliged to bring of supe­rior claims to military honor, before they could be enlisted as gendarmes. It was necessary, in fact, that every individual amongst them should produce a certifi­cate of six or eight years service.

GENDARMES (gens d'armes) de la garde, a select body of men so called dur­ing the old government of France, and still preserved in that country; but their services are applied to different purposes. They consisted originally of a single company which was formed by Henry IV. when he ascended the throne. He dis­tinguished them from his other troops, by styling them hommes d'armes de ses ar­donnances: men at arms under his own immediate orders: They consisted of men best qualified for every species of mili­tary duty, and were to constitute a royal squadron at whose head the king himself might personally engage the enemy, as necessity might require. He gave this squadron to his son, the Dauphin, who was afterwards king of France, under the name and title of Louis XIII.

GENERAL, in a military sense, is an officer in chief, to whom the government of a country have judged proper to entrust the command of their troops. He holds this important trust under various titles, as captain-general, in England and Spain, Feldmarschall, in Germany, or maréchal, in France.

In the British service the king is constitu­tionally, and in his official right, captain-general. He has ten aids-de-camp; every one of whom enjoys the brevet rank of full colonel in the army.

The reputation of the gendarmerie was considerably raised by order of Louis XIV. The soldiers who composed it were called gendarmes. And in 1792, the number was considerably augmented, consisting of horse and foot, and being indiscriminately called gendarmes; but their clothing was altered to deep blue. Their pay was greater than what the rest of the army enjoyed, and when others were paid in paper currency, they received their subsistence in hard cash (en argent sonant.) They possessed these privileges on account of the proofs they were obliged to bring of superior claims to military honor, before they could be enlisted as gendarmes. It was necessary, in fact, that every individual amongst them should produce a certificate of six or eight years service.

THE OFFICE OF A GENERAL is to regulate the march and encampment of the army; in the day of battle to choose out the most advantageous ground; to make the disposal of the corps; to post the artillery, and, where there is occasion, to send his orders by his aids-de-camp. At a siege he is to cause the place to be invested, to regulate the approaches and attacks, to visit the works, and to send out detachments to secure the convoy, and foraging parties.
GENERALISSIMO, a supreme and absolute commander in the field. This word is exclusively used in most foreign languages. It was first invented by the absolute authority of cardinal Richelieu, when he went to command the French army in Italy.

General of the artillery. See Ordinance.

Generals of horse are officers next under the general of the army. They have an absolute command over the horse belonging to an army, above the lieutenant generals.

Generals of foot are officers next under the general of the army, having an absolute command over the foot of the army.

General officers. All officers above the rank of colonel in the line are so called.

General. In the German armies, and among the sovereigns of the North, there are certain generals of cavalry, and others of infantry, who take rank of all lieutenant generals. Those belonging to the infantry, in the imperial service, and who are of this description, are called general field marshallers. In Russia they bear the title of generals in chief; of which class there are four belonging to the armies of that empire, two for the infantry and two for the cavalry. They are called chief marshals, or general-field marshallers.

Generals are officers next in battle, and which teaches them to be ready to sacrifice their lives for their sovereign. Generals have the right of pardon, in the fullest sense of the word. The generals of the German armies are supreme commanders in all operations; and, by their authority, they can dispose of troops, confine or free prisoners, confer or deprive officers of升降, and change the order of battle.

General des galères, Fr. Superintendant officer, or general of the galilies.

This was one of the most important appointments belonging to the old government of France. The officer to whom it was entrusted commanded all the galilies, and vessels which bore what the French call voiles d'attaque (a triangle rectangular sail) in the Mediterranean. He had a jurisdiction, a marine police, and an arsenal for constructing ships under his own inspection.
mediate command, without being in the least subordinate to the French admiral himself. When he was on board he was an officer in rank to the admiral.

The privies which were attached to his dwelling, and the authority he possessed, all regard to the latter, made him at the head of the admiral.

In the regiment, and were distinguished by the respect and compliments that were paid to the said standard, which this general bore, not only on board his vessel, but wherever he chose to set it up.

During the reign of Louis XIV in 1665, the Duke de Vivonne, marshal of France, raised the reputation of the artillery service, to a considerable degree of importance, by gaining several successful engagements. His son, the Duke de Montmartre, succeeded him in the appointment; and the chevalier d'Orleans, grand prior of France, was general of the galleys at his decease.

**General des lieutenants, Fr.** A sort of chief commissary, or superintendant general of stores, whose particular functions were to provide ammunition, bread, and biscuit for the army. There were several subordinate commissaries who watched the distribution of these stores, and saw that the bakers gave bread of the quality they contracted for. It was likewise within the department of the superintendent general, to attend to the collection of grain and flour, and to see that proper carriages and horses were always at hand to convey them to the several depots of magazines. The different camps were also supplied from the same source. See **Superintendant.**

**General and staff officers** are all officers as above described, whose authority extends beyond the immediate command of a particular regiment or company, and who have either separate districts at home, or commands on foreign service.

**Lieutenant General.** This officer is the first military dignity, after that of a general. One part of the functions belonging to lieutenant generals, is to assist the general with counsel; they ought therefore, if possible, to possess the same qualities with the general himself, and the more, as they often command armies in chief, or succeed thereto on the death of the general.

The number of lieutenant generals have been multiplied of late in Europe, in proportion as the armies have become numerous. They serve either in the head, or in sieges, according to the dates of their commissions. In battle the eldest commands the right wing of the army, the second the left wing, the third the centre, the fourth the right wing of the second line, the fifth the left wing, the sixth the centre, and so on. In sieges the lieutenant generals always command the right of the principal attack, and judge what plea is proper for the advancement of the siege, during the 24 hours they are in the trenches, except the attacks, which they are not to make without an order from the general in chief. Lieutenant generals are entitled to two aids-de-camp.

**Lieutenant General of the ordnance.**

**Lieutenant General of artillery.** is, or ought to be, a very able mathematician, and a skilful gunner, to know all the powers of artillery, to understand the attack a defence of fortified places, in all its different branches; how to dispose of the artillery in the day of battle to the best advantage; to conduct its march and re-treat; and also to be well acquainted with all the numerous apparatus belonging to the train, laboratory, &c.

**Major General,** the next officer to the lieutenant general. His chief business is to receive orders from the general, or in his absence from the lieutenant general of the day; which he is to distribute to the brigade-major, with whom he is to regulate the guards, convoys, detachments, &c. On him the whole logistic and detail of duty of the army falls.

It is the major general of the day who is charged with the encampment of the army, who places himself at the head of it when it marches, who makes out the ground of the camp, to the quarter master-general, and who places the new guards for the safety of the camp.

The day the army is to march, he dictates to the field officers the order of the march, which he has received from the general, and on other days gives them the parole.

In a fixed camp he is charged with the foraging, with reconnoitring the ground for it, posting the guards, &c.

In sieges, if there are two separate attacks, the second belongs to him; but if there be only one, he takes either the right or left of the attack, which is left to the lieutenant general not chosen.

When the army is under arms, he assists the lieutenant general, whose orders he executes.

If the army marches to an engagement, his post is at the head of the guards of the army, until they are near enough to the enemy to form their different camps; after which he returns to his own proper post for the major generals are disposed on the other side of battle as the lieutenant generals are, to whom however, they are subordinate, for the command of their divisions. The major general has one aide-de-camp and one brigade major.

**Brigadier General,** is the next rank to that of major general, being superior to all colonels, and having frequently a separate command.

**General of a district,** a general officer who has the charge and superintendence of a certain extent of country, in which troops are encamped, quartered, or cantoned. He is entitled to have three aids-de-camp and one brigade major.
He receives reports, &c. from the major general, respecting the troops in his district; reviews and inspects them, like-wise the field days of the wood, brigades, or on separate corps, when and in what order they are to march, making the necessary reports to the war-office, commander in chief, \\
Colonel General, an honorary title, or military rank, which is bestowed in the armies of all nations. Thus the prince of peace in Spain was colonel general of the Swiss guards. \\
Brigade major General. As England and Scotland have been divided into different districts, each district under the immediate command of a general officer, it has been found necessary, for the dispatch of business, to establish an office, which shall be wholly unattached to brigade duties. The first brigade major general was appointed in 1797. Since which period all orders relative to corps of officers, which are transmitted from the commander in chief to the generals of districts, pass through this channel of intermediate communication.

By the British regulations, it is particularly directed, that all officers commanding brigades, shall very minutely inspect the internal economy and discipline of the several regiments under their order. They are frequently to visit the hospitals and guard. On arriving at camp they are never to leave their brigades till the tents are pitched, and the guards posted; they must always encamp with their brigades, unless quarters can be procured for them immediately in the vicinity of their camp. General officers must not at any time change the quarters assigned them without leave from head quarters.

All general officers should make themselves acquainted, as soon as possible, with the situation of the country near the camp, with the roads, passes, bridges, &c. leading to it; as likewise with the out-posts, that in case they should be ordered suddenly to sustain, or defend any post, they may be able to march without waiting for guides, &c., and be competent, from a topographical knowledge of the country, to form the best disposition for the service. They should instruct their aids-de-camp in these particulars, and always require their attendance when they visit the out-posts.

All general officers, and others in considerable rank, must make themselves thoroughly acquainted with the nature of the country, the quality of the roads, every circuitous access through valleys or openings, the relative height of the neighboring hills, and the course of rivers, which are to be found within the space entrusted to their care. These important objects may be attained by maps, by acquired local information, and by unwearied activity and observation. And if it should ever be the fate of a country, to act upon the defensive, a full and accurate possession of all its fastnesses, &c., must give each general officer an idea of the enemy, who cannot have examined the ground upon which he may be reduced to fight, and must be embarrassed in every forward movement that he makes. Although guides may serve, and ought always to be used in the common operations of war, there are occasions where the eye and intelligence of the principal officer must determine the movements. \\

General officers on service abroad, or commanding districts at home, may appoint their own aids-de-camp and brigade majors. The latter, however, are to be considered as officers attached to their several brigades, not personally to the officers commanding them. The former are their habitual attendants and domestic inmates. In the selection of aids-de-camp and brigade majors, too much attention cannot be given to their qualifications and the general would not only commit an act of injustice against the interest of his country, but deserve the severest censure and displeasure of his sovereign, who through motives of private convenience, family connection, or convivial recommendation, could so far forget his duty, as to prefer an unexperienced, and in a character marked by a knowledge of the profession, a zeal for the service, and an irreproachable conduct.

In the day of battle the station of a general with the reserve, where he remains situated, is that he can see every thing which is going forward; and by means of his own observation, or through the communications of his aids-de-camp, is enabled to send reinforcements, as the exigencies of the conflict may require.

The celebrated Marshal Saxe has made the following remarks on the necessary qualifications to form a good general. The most indispensable one, according to his idea, is valor, without which all the rest will prove nugatory. The next is a sound understanding with some genius; for he must not only be courageous, but extremely fertile in expedients; the third is health and a robust constitution.

He must be capable of prompt and vigorous resources; he must have an aptitude, and a talent at discovering, the shortest tracts of his own intentions. He must be seemingly communicative, in order to encourage others to unboast, but remain tenaciously reserved in matters that concern his own army; he must, in a word, possess activity with judgment, be able to make a proper choice of his officers, and never deviate from the strictest line of military justice. Old soldiers must not be rendered wretched
and unhappy, by unwarrantable promotions, nor must extraordinary talents he placed to the detriment of the service, on account of mere rules and regulations. Great abilities will justify exceptions; but ignorance and inactivity will not.

In his department he must be able, and always superior to punishment, or ill-humor; he must not know, or at least seem to know, what a spirit of reticence is and when he is under the necessity of inflicting military chastisement, he must see the guilty punished without compromise or foolish humanity; and if the delinquent be from among the number of his most intimate friends, he must be doubly severe towards the unfortunate man. For it is better, in instances of correction, that one individual should be treated with rigor (by orders of the person over whom he may be supposed to hold some influence,) than that an idea should go forth in the army, of public justice being sacrificed to private sentiments.

A modern general should always have before him the example of Manlius; he must divest himself of personal sentiments, and not only be convinced himself, but convey to others, that he is the organ of military justice, and that what he does is irrevocably prescribed. With these qualifications, and by this line of conduct, he will secure the affection of his followers, instil into their minds all the impulses of deference and respect; he will be learned, and consequently obeyed.

The resources of a general's mind are as various as the occasions for the exercise of them are multiplied and chequered; he must be perfectly master of the art of knowing how to support an army in all circumstances and situations, how to apply its strength, or be sparing of its exertions; how to post all its different component parts, so as not to be forced to give, or receive battle in opposition to settled plans. When once engaged, he must have presence of mind enough to grasp all the relative points of disposition and arrangement, to seize favorable moments for impression, and to be thoroughly conversant in the infinite varieties of climate; which occur during the heat of a battle; on ready possession of which its ultimate success depends. These requisites are unquestionably manifold, and grow out of the diversity of situations, and the chance medley of events that produce their necessity.

A general to be in perfect possession of them, must on the day of battle be divested of every thought, and be inaccessible to every feeling, but what immediately regards the business of the day; he must reconnoitre with the promptitude of a skilful geographer, whose eye collects instantaneously all the relative portions of locality; and feels his ground as it were by instinct; and in the disposition of his troops, he must discover a perfect knowledge of his profession, and make all his arrangements with accuracy and dispatch. His orders of battle must be simple and unconfused, and the execution of his plan be as quick as if it merely consisted in uttering some few words of command; as, the first line will attack! the second will support it! or such a battalion will advance and support the line.

The general officers that act under such a general, must be ignorant of their business indeed, if, upon the receipt of these orders, they should be deficient in the immediate means of answering them, by a prompt and ready co-operation. So that the general has only to issue out directions according to the growth of circumstances, and to rest satisfied, that every division will act in conformity to his intentions; but if, on the contrary, he should so far forget his situation as to become a drill sergeant in the heat of action, he must find himself in the case of the fly in the fable, which perched upon a wheel and foolishly imagined, that the motion of the carriage was influenced by its situation. A general, therefore, ought on the day of battle to be thoroughly master of himself, and to have both his mind and his eye riveted to the immediate scene of action. He will by these means be enabled to see every thing; his judgment will be unembarrassed, and he will instantly discover all the vulnerable points of the enemy. The instant a favorable opening offers, by which the contest may be decided, it becomes his duty to head the nearest body of troops, and, without any regard to personal safety, to advance against his enemy's line.—[By a ready conception of this sort, joined to a great course, general Donoso determined the issue of the battle of Marengo.] It is, however, impossible for any man to lay down rules, or to specify, with accuracy, all the different ways by which a victory may be obtained. Everything depends upon variety of situations, casualness of events, and intermediate occurrences, which no human foresight can positively ascertain, but which may be converted to good purposes by a quick eye, a ready conception, and a prompt execution.

Prince Eugene was singularly fitted with these qualifications, particularly with that sublime possession of the mind, which constitutes the essence of a military character.

Many commanders in chief have been so limited in their ideas of warfare, that when events have brought the contest to issue, and two rival armies have been drawn out for action, their whole attention has devolved upon a straight alignment, an equality of step, or a regular distance in intervals of columns. They have considered it sufficient to give answers to questions proposed by their aids-de-camp, to send orders in various...
directions and to gallop themselves from one quarter to another, without steadily adhering to the fluctuations of the day, or caring, watching for an opportunity to strike a decisive blow. They endeavor, in fact, to do everything, and thereby do nothing. They appear like men whose presence of mind deserts them the instant they are taken out of the beaten track, or are reduced to supply unexpected exigencies; and from whence continues the same sensible writer, do these contradictions arise, from an ignorance of these high qualifications without which the mere routine of duty, methodical arrangement, and studied discipline must fail to the ground, and defeat themselves. Many officers spend their whole lives in putting a few regiments through a regular set of manœuvres; and having done so, they vainly imagine, that all the science of a real military man consists in that acquirement. When, in process of time, the command of a large army falls to their lot, they are manifestly lost in the multitude of the undertaking, and from not knowing how to act as they ought, they remain served with doing what they have partially learned.

"Military knowledge, as far as it regards a situation, a commander in chief, may be divided into two parts, one comprehending mere discipline and settled systems for putting a certain number of rules into practice; and the other originating a sublimity of conception, that method may assist, but cannot give."

"If a man be born with faculties that are naturally adapted to the situation of a general, and if his talents do not fit the extraordinary calamities of war, he will never rise beyond mediocrity."

"It is, in fact, in war as it is in painting, or in music. Perfection in either art grows out of innate talents, but it never can be acquired without them. Study and perseverance may correct ideas, but no application, no assiduity will give the life and energy of action; these are the works of nature."

"It has been my fate (observes the Marshal) to see several very excellent commanders in chief, I have known others, who have distinguished themselves at sieges, and in the different evolutions of an army, lose their presence of mind and appear ignorant of their profession; the instant they were taken from that particular line, and be incapable of commanding a few squadrons of horse. Should a man of this cast be put at the head of an army, he will combine himself to mere dispositions and manœuvres; to them he will look for safety; and if once thwarted, his defeat will be inevitable, because his mind is not capable of other resources."

"In order to obviate in the best possible manner the hazardous circumstances which must arise from the uncertainty of war, and the greater uncertainty of the means that are adopted to carry it on, some general rules ought to be laid down, not only for the government of the troops, but for the instruction of those who have the command of them. The principles to be observed, are: that when the line or the columns advance, their distances should be scrupulously observed; that whenever a body of troops is ordered to charge, every proportion of the line should rush forward with intrepidity and vigor; that if openings are made in the first line it becomes the duty of the second instantly to fill up the chasms."

"These instructions issue from the districts of plain nature, and do not require the least elucidation in writing. They constitute the A, B, C, of soldiers. Nothing can be more simple, or more intelligible; so much so, that it would be ridiculous in a general to sacrifice essential objects in order to attend to such minutiae. His functions in the day of battle are confined to those occupations of the mind, by which he is enabled to watch the movements of the enemy, to observe his movements, and to see with an eagle's, or a king of Prussia's eye, all the relative directions that his opponents take. It must be his business to create alarms and suspicions among the enemy's army, to prepare and connect his movements, and to see with an eagle's eye, in all the relative directions that his opponents take. It must be his business to create alarms and suspicions among the army, to prepare and connect his movements, and to see with an eagle's eye, in all the relative directions that his opponents take."

"I am not, however, an advocate for pitched battles, especially at the commencement of a war. A skilful general might, I am persuaded, carry on a contest between two rival nations during the whole of his life without being once obliged to come to a decisive action. Nothing harasses and eventually distresses an enemy so much as this species of warfare. He must, in fact, be frequently attacked, and by degrees, he broken and unnerved; so that in a short time he will not be able to shew himself."

"It must not generally be inferred from this opinion, that when an opportunity presents itself, whereby an enemy may be crushed at once, the attack should not be made, or that advantage should not be taken of the errors he may commit; all I mean to prove is, that war can be carried on without leaving any thing to chance; and in this consists the perfection and highest point of ability be-
loining to a general. But when a battle
is joined, the triumphant party ought to keep well to know all the advantages which
may be derived from his victory. A wise
general, indeed, will not remain satisfied in
having made the master of the mere
field of battle. This, I am sorry to
observe, is too often the custom; and,
strange to say, that custom is not without
its advocates.

"It is too much the practice of some
governments, and of some of our generals,
to follow the old proverb, which
says, that in order to gain your end,
you must make some sacrifices, and even facil-
itate the retreat of your enemy. Nothing can
be more impolitic or more absurd. An
able and vigorous force might as well tamper
with a mortification, and by endeavoring to save
an useless limb, run the hazard of de-
stroying all the vital parts.

"An enemy, on the contrary, ought to
be vigorously pushed, harassed night and
day, and pursued through every winding
path he can make. By a conduct of this sort,
the advancing army will drive him from
all his holds and fastnesses, and the con-
clusion of his brilliant retreat, will ult.
imately turn out a complete and total over-
throw. Ten thousand well trained and
disciplined troops, that are sent forward from
the main army, to hang upon the rear of a retiing enemy, will be able to
destroy an army of an hundred thousand
men, when that army has once been forced
to make retrograde movements. A wis\-o\f confidence in their generals, added to
many other disheartening circumstances,
will naturally possess the minds of the
latter, while implicit faith and warm af-
fection must influence the former. A first
defeat well followed up, almost always
terminates in a total rout, and finishes the
contest. But some generals do not wish
to bring war to a speedy issue. Public
mistrusts too frequently produce pri-
ate emboldments, and the accumulation
of the latter is too endearing to suffer
itself to be superseded by the former."

In order to substantiate what he thus
advances with much good sense, the Mar-
shal cites the following particular in-
stance, from among an infinity of others.

"When the French army, at the bat-
tle of Ramillies, was retiring in good or-
sen over an eminence that was rather con-
 fined, and on both sides of which there
were deep ravines, the cavalry belonging
to the allies followed its track industri-
ously, without even appearing to wish to har-
ass or attack its rear. The French con-
tinued their march with the same com-
pomus; retreating upon the flank with more than twenty
lines, on account of the narrowness of the
ground.

"On this occasion, a squadron of En-
 glish horse got close to two French batta-
 lions, and began to fire upon them. The
two battalions, naturally presuming that
they were going to be attacked, came to
the right about, and fired a volley at the
squadron. What was the consequence?
The whole of the French army took in its
heels; the cavalry went off full sallo,
and all the infantry, instead of patiently
retiring over the heaths, threw itself into
the ravines in such dreadful disorder that
the ground above was almost instantly
abandoned, and not a French soldier was
seen upon it.

"Let any military man consider this
terrible event, and then praise the resi-

ance of a retreat and the prudent foresight
of those who, after an enemy has been van-
quished in the field, rest easy in their
actions, and give him time to follow up the
enemy."

It must be done in good order. And if it
be remembered, that when an enemy has
once taken to his heels in real earnest, you
may drive him before you by the mere
noise of empty bladders.

"If the officer who is detached in pur-
suit of an enemy, begins to manoeuver
after prescribed rules and regulars, and
operate with slowness and precaution, he
had better be recalled; for the sole
purpose of his employment is to press on
vigorously, to harass and distress the foe.
Every species of evolution will do on this
occasion; if any can be decisive, the
regular system might prove to.

"I shall conclude these observations by
saying, that all retreats depend wholly
upon the talents and abilities of gener-
als, who must themselves be governed by
circumstances and situations; but I
will venture to assert, that no retreat can
ever be effectually successful, unless it be made be-
fore an enemy who acts with extreme cau-
tion; for if the latter follow up his first
blow, the vanquished army must soon be
thrown into utter confusion.

"These are the sentiments of Marshal
Saxe, as far as they relate to the qualifica-
tions which the general of an army should
insensibly possess. And no man are
we persuaded was better enabled to form
an opinion on so important a subject:
for a baron Espagnac has justly observed
in his Supplement aux Réserves de l'Art,
p. 106, "he possessed uncommon courage,
was tireless in expedients and resources;
he knew how to distinguish and to make
use of the abilities of individuals, was
unshaken in his determinations; and when
the good of the service required charge-
ment or severity, was not restrained by
private feelings, or hurried away by a
sanguinary temper; he was uncommonly
attentive to his men, watchful of their
health, and provident to supply their
wants; sparing of their blood in the day
of battle, and always inspiring them
by the liveliness of his mind, tempered by
experience, with confidence and attach-
ment to his measures. He knew the cast of each man's character, particularly so of his officers; and whilst he directed the former with consummate knowledge and consequent success, he never lost sight of the merits of the latter, when they cooperated with his designs. If the natural vivacity of his mind sometimes led him into temporary neglect, good sense and a marked anxiety to be just, soon made amends for apparent slights, by rendering the most important services; he was ingenuous and subtle in all his; and before an enemy, skilful in his choice of camps, and equally intelligent in that of posts; he was plain in his instructions previous to an engagement, simple in its disposition of the order of battle; and he was never known to lose an opportunity, through the want of prompt decision, whereby a contest might be cooled by a bold and daring evolution. When it appeared necessary to give weight to his orders, and to turn the balance of fortune by personal exposure, no man became less fearful of his own destiny, than Marshal Saxe. Oft these occasions he was daring to an extreme, heedless of danger, but full of judgment, and a calm presence of mind. Such, in our humble opinion, are the outward marks of a real general. How well they were exemplified and filled up, by the subject of this article, time and the concurring testimony of events have proved.

**General's Guard.** It was customary among the French, for the eldest regiment to give one captain, one lieutenant, one ensign, two sergeants, and fifty privates, as a general's guard. Whenever the marshals of France were on service under the immediate orders of the king, or of the princes belonging to the royal household, they always retained the rank of general.

**General d'armes, Fr.** the commander in chief of any army.

**Batterie la General, Fr.** to beat the general. See **Doom.**

**General court-martial.** See **Courts martial.**

**General formation of the battalion,** are from line into column, and from column into line by echelon; to either flank, to the front, or on a line oblique to any given point front or rear.

**General,** is also used for a particular beat of the drum. See **Drum.**

**GENETTE, Fr.** a particular sort of snaffle, which is used among the Turks; it resembles a large ring, and serves to confine the horse's tongue.

**GENIE, Fr.** The art of engineering. It consists in a knowledge of lines so as to be able to trace out all that is requisite for the attack or defence of places, according to established rules in fortification. Marshal Vauban and the marquis of Louvois, have particularly distinguished themselves in this art.

**GENIUS, in a military sense, a natural talent or disposition to every kind of warlike employment, more than any other; or whilst a man has received from nature to perform well, and easily, that which others can do but with difficulty, and with a greater deal of pain.**

From the divinity of genius, the difference of inclination arises in men whom nature has had the precaution of leading to the employment for which she designs them, with more or less impetuously, in proportion to the greater or lesser number of obstacles they have to surmount, in order to render themselves capable of answering this occasion. Thus the inclinations of men are so very different, because they follow the same mover, the impulse of their genius. This is what renders one officer more pleasing, even though he trespasses against the rules of war; while others, by their discreetness and skill, resembling the strict regularity.

**GÉNOUILIERE, Fr.** the lower part of the embrasure of a battery. The genouilliere is about 2 f 1/2 or 3 French feet high from the platform to the opening of the embrasure. It lies immediately under the arch of the fortification. Its thickness, which usually consists of flaxers well put together, is of the same dimensions that a large bear; namely, from 18 to 22 feet. The term genouillière is derived from genou, signifying the knee, to the height of which it is generally raised.

**GENS, Fr.** a word in much desultory use among the French, signifying in a general acceptation of it, folks, people, servants, soldiers, &c.

**GÉNÉRAUX.** See **GENETIERS.**

**GÉNEE,** in a military sense, a sort of sack, which is used among the Turks; the genée is about 2 f 1/2 or 3 French feet high from the platform to the opening of the embrasure. It lies immediately under the arch of the fortification. Its thickness, which usually consists of flaxers well put together, is of the same dimensions that a large bear; namely, from 18 to 22 feet. The term genouillière is derived from genou, signifying the knee, to the height of which it is generally raised.

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**GENS d'armes.** See **GENETIERS.**

**GÉNÉREUX, Fr.** men attached to a military possession.

**Mét GÉNÉRAUX, Fr.** an affected phrase, which was formerly used among the French, to signify their servants or attendants. It seems to have been an arrogant and foolish imitation of mon peuple, my people. During the monarchy of France, this term was in much vogue at Paris, and was afterwards adopted by almost all the petits maîtres, or com-combs belonging to the church, state, and army.

**GÉNES de ser et de corde, Fr.** an appor-
plural number it is only accepted according to the following significations.

Le droit des Gens, Fr. the rights of nations.

Voir le droit des Gens, Fr. to infringe or violate the rights of nations.

Respecter le droit des Gens, Fr. to respect the rights of nations.

Un traité du traité des Gens, Fr. a treatise on the rights of nations.

The following phrases are in familiar use among the French, viz.

Gens de marque, Fr. men of distinction.

Gens de condition, Fr. men of condition.

Gens d'honneur, Fr. men of honor.

Gens de qualité, Fr. men of fashion, or quality.

Gens d'esprit, Fr. men of spirit.

Gens d'épie, Fr. this term is used among the French, to distinguish officers, gentlemen, &c. who wear swords, from those who do not, particularly used in opposition to gens de la robe, or lawyers.

Gens de main, Fr. executive characters.

Gens de service, Fr. useful men, persons of exactions.

Gens de pied, Fr. The same as fantassins, foot soldiers, or men who serve on foot.

Gens de cheval, Fr. cavalry, or men who serve on horseback.

Allôre Gens, cent mille gens, Fr. signifies any considerable number of men.

Gens, Fr. this word is likewise used to distinguish bodies of men that are in opposition to each other, viz.

Nos Gens ont battu les ennemis, Fr. our men, or people have overcome the enemy.

Nos Gens ont été battus, Fr. our men or people have been beaten.

Je crains que ce ne fussent des ennemis, et c'étaient de nos Gens, Fr. I was apprehensive that they were our enemies, but they proved to be our own people.

Nos Gens battirent les vôtres, Fr. our men beat yours.

Gens, Fr. when followed by the preposition de, and by a substantive, which points out any particular profession, trade, &c., signifies all those persons that belong to one nation, one town, &c. or who are of one specific profession or calling.

Les Gens d'église, Fr. churchmen.

Les Gens de robe, Fr. lawyers or gentlemen of the long robe.

Les Gens de finance, Fr. men concerned in the distribution of public money.

Les Gens de loi, Fr. means generally all persons who have any connection with the law in the way of profession.


Gentilhommes de la garde, commonly called Au bec de corneille, or the battle axe. This company went through many alterations during the monarchy of France. During the last year of their government, it consisted of 200 guards under the command of a captain, a lieutenant, and an ensign. The captain had the power of giving away the substantive commissions, and had moreover the entire management of the rest; every vacancy being in his gift. They marched to file, each holding his battle-axe, before the king on days of public ceremony. These were chiefly at the coronation, and the marriage of the king, or at the reception of the knights of the Holy Ghost.

When the company was first raised, its particular duty was to attend the king's person, and to be constantly near him on the day of battle.

GENTILHOMMES à drapeau établis
dans chaque compagnie des gardes Francaises, Fr. under the old French government, this person ranked as officer second. He did duty in common with the ensigns of the French guards, and took precedence immediately under the captain. His name always stood upon the muster roll, but his appointment was purely honorary, as he did not receive any pay for his tour of duty in mounted guards, went with that of the ensigns, he was obliged to be present at all field days, and could not absent himself without leave.

Gentilhommes pensionnaires, Fr. Gentlemen pensioners. See Pensioners.

GEODESIE, Fr. that part of practical geometry, which contains the doctrine or art of measuring surfaces and finding the contents of all plain figures. Among the French géodésie means likewise the division of lands. See Surveying.

GEOGRAPHY is the doctrine or knowledge of the terrestrial globe; or the science that teaches and explains the state of the earth, and parts thereof that depend upon quantity; or it is rather that part of mixed mathematics, which explains the state of the earth, and of its parts depending on quantity, viz. its figure, magnitude, place, and motion, with the celestial appearances, &c. In consequence of this definition, geography should be divided into general and special, or universal and particular.

By universal geography, is understood that part of the science which considers the whole earth in general, and explains its properties without regard to particular countries. This division is again distinguished into three parts, absolute, relative, and comparative. The absolute part respects the body of the earth itself, its parts and peculiar properties; as its figure, magnitude, and motion; its lands, seas, and rivers, &c. The relative part accounts for the appearances and accidents that happen to it from celestial causes; and lastly, the comparative contains an explanation of those properties which arise from comparing different parts of the earth together.
Special or particular Geography is the division of the science which describes the constitution and situation of each single country by itself; and is twofold, viz. chorographical, which describes countries of a considerable extent; or topographical, which gives a view of some place, or small tract of land. Hence the object or subject of geography is the earth, especially its superficies and exterior parts.

The properties of Geography are of three kinds, viz. celestial, terrestrial, and human. The celestial properties are such as affect us by reason of the apparent motion of the sun and stars. These are 8 in number.

1. The elevation of the pole, or the distance of a place from the equator.
2. The obliquity of the diurnal motion of the stars above the horizon of the place.
3. The time of the longest and shortest days.
4. The climate and zone.
5. Heat, cold, and the seasons of the year, with rain, snow, wind, and other meteors.
6. The rising, appearance, and continuance of stars above the horizon.
7. The stars that pass through the zenith of a place.
8. The celerity of the motion with which, according to the Copernican hypothesis, every place constantly revolves.

The terrestrial properties are those observed in the face of the country, and are 10 in number.

1. The limits and bounds of each country.
2. The figure; magnitude; mountains; waters, viz. springs, rivers, lakes, and bays; woods and deserts.
3. The fruitfulness and barrenness of the country, with its various kinds of fruits.
5. The living creatures there.
6. Longitude and latitude of the place.

The third kind of observation to be made in every country is called human, because it chiefly regards the inhabitants of the place. It consists of 30 specific branches.

1. The stature, shape, color, and length of their lives; their origin, meat and drink.
2. Their arts, and the profits which arise from them, with the merchandise they barter one with another.
3. Their virtues and vices, learning, capacities, and schools.
4. Their ceremonies at births, marriages, and funerals.
5. The language which the inhabitants use.
6. Their political government.
7. Their religion and church government.
8. Their cities and famous places.
9. Remarkable histories and antiquities.
10. Their famous men, artificers, and inventions of the natives.

These are the three kinds of occurrences to be explained in special geography.

The principles of Geography, or those from which arguments are drawn for the proving of propositions in that science, are, according to the best authors, of three sorts.

1. Geometrical, arithmetical, and trigonometrical propositions.
2. Astronomical precepts and theorems.
3. Experience, being that upon which the greatest part of geography, and chiefly the special is founded.

In proving geographical propositions, we are to observe, that several properties, and chiefly the celestial, are confirmed by proper demonstrations; being either grounded on experience and observation, or on the testimony of our senses: nor can they be proved by any other means. There are also several propositions proved, or rather exposed to view, by the terrestrial globe, or by geographical maps. Other propositions cannot be so well proved, yet are received as apparent truths. Thus, though we suppose all places on the globe, and in maps, to be laid down in the same order as they are really on the earth, nevertheless, in these matters, we rather follow the descriptions that are given by geographical writers.

Geography is very ancient, at least the special part thereof; for the ancients scarce went beyond the description of countries. It was a constant custom among the Romans, after they had conquered or subdued any province, to have a map or printed representation thereof, carried in triumph and exposed to the view of the spectators. Historians relate that the Roman senate, about 200 years before Christ, sent geographers into divers parts to make an exact survey and measurement of the whole globe; but they scarcely ever saw the 50th part of it.

Before them, Necho, king of Egypt, ordered the Phcenicians to make a survey of the whole coast of Africa, which they accomplished in 3 years. Darius procured the Ethiopian sea, and the mouth of the Indus, to be surveyed; and Pytheas relates, that Alexander, in his expedition into Asia, took two geographers to measure and describe the roads; and that from their itineraries, the writers of the following ages took many particulars. Indeed this may be observed, that whereas most other arts and sciences are sufferers by war, geography, artillery, mining, and
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circle, together with the figures and sohds,

Circles, and transversals, &c. Fr.

calls it the knowlege of magni-

tudes and figur· s, and their limitations;

honor of reducing geography to,

fortification, alone have been improved thereby. Geography, however, must

must have been exceedingly defective, as a great part of the globe was then unknown,

partly America, the north-n.

parts of Europe and Asia, with the

Australasia, and Macellanica; and they were also ignorant of the earth's being capable to be sailed round, and of the torrid zone being habitable, &c.

The honor of reducing geography to

ort and system, was reserved for Ptol­

my; who, by adding mathematical ad-

vantages to the historical method in

which it had been treated of before, has
described the world in a much more in-
telligible manner: he has delineated it

under more certain rules, and by fixing

the bounds of places from longitude and latitude, has discovered other mistakes,

and has 1:4d us a method of discovering

 owns.

GEOMER des prisons militaires, Fr.

the superintendent or head jailor of mil-

itary prisons. Under the old French go-

government, this person had a right to visit

all prisoners that were not confined in
dungeons. He could order provisions, wood, and coal to be conveyed to them;

but he had not the power of permitting women to visit or have any intercourse

with the soldiers; and when their period

of imprisonment expired, he could not
determine on account of debts contracted

d for food, lodging, or fees, &c. Half of

the prisoner's subsistence for one day,

according to his rank, was given on his

release.

GEOMETRICAL elevations, just di-

mensions of, as in compartment to a

given scale, etc. GEOMETRICAL.

Fr. Geometry.

Fr. compound

gometry, which consists in the know-
l•e•e of curved lines, and of the different

bodies produced by them. The imme-

diate object or intent of compound geomo-

try is confined to conic sections, and to

lines of that species.

Fr. these terms have been applied by the

French to the new system of geometry,

which was produced by Leibnitz, and

Newton, when they found out the met

method of calculating ad infinitum.

GEOMETRY, usually signified no

more than the art of measuring the earth,
or any distance or dimensions in it; but

at present it denotes the science of mag-

nitude in general; comprehending the
docket and relations of whatever is sus-

cceptible of augmentation or diminution,

considered in that light. Hence, to geo-

metry may be referred the consideration

not only of lines, surfaces, and solids;

but also of time, velocity, number,

weight, etc.

Plato thought the word geometry an

improper name for this science, and ac-

cordingly substituted in its place the

more extensive one of mensuration; and

after him, others gave it the name of

pantometry, as demonstrating not only

the quantities of all manner of magni-
tudes, but also their qualities, ratios, po-

sitions, transformations, relations, etc., and

Proclus calls it the knowledge of magni-
tudes and figures, and their limitations;
also of their motions and affections of

every kind.

Origin and progress of GEOMETRY.

This science had its rise in Asia, the

invention, which at first consisted only in

measuring the lands, that every person

might have what belonged to him, was

called geometry, or the art of measuring

land; and it is probable, that the drafts

and schemes which they were annually

compelled to make, helped them to disco-

ver many excellent properties of these fi-

tures; which speculation has continued

gradually to improve to this day.

From Asia it passed into Egypt, and

thence into Greece, where it continued to

receive improvement from Thales, Py-

thagoras, Archimedes, Euclid, etc. The

elements of geometry, written by Euclid

in 15 books, are a most convincing book

to what perfection this science was car-

ried among the ancients. However, it

must be acknowledged, that it fell short

of modern geometry, the boundaries of

it, being enlarged by the inventions of fluxions, and the dis-

covery of the almost infinite order of

curved are greatly enlarged.

Division of GEOMETRY. This science

is usually distinguished into elementary,

and higher or sublime geometry. The

first, or elementary geometry, treats of

the properties of right lines, and of the

circle, together with the figures and solids

formed by them. The doctrine of lines

comes first, then that of surfaces, and

lastly that of solids. The higher geo-

metry comprehends the doctrine of conic

sections, and numerous other curves.

Speculative and practical GEOMETRY.

The former treats of the properties

of lines and figures, as Euclid's Elements,

Apollonius's Conic Sections, etc. and

the latter shows how to apply these

speculations to the use of mensuration,

navigation, surveying, taking heights

distances, gauging, fortification, gun-

nery, etc.

Usefulness of GEOMETRY. Its usefulness

extends to almost every art and sci-

cence. By the help of it, astronomers

turn their observations to advantage: re-

gulate the duration of times, seasons,

years, cycles, and epochs; and assure

the distance, motion, and magnitudes of

the heavenly bodies. By it geographers

determine the figure and magnitude of

the whole earth; and delineate the ex-
tent and bearings of kingdoms, provinces,

harbors, etc. It is from this science al-

so that architects derive their just meas-

ure and construction of public ediﬁces,
as well as of private houses.

It is by the assistance of geometry that

engineers conduct all their works, take
the situation and plans of towns, the distances of places, and the measure of such things as are only accessible to the sight. It is not only an introduction to fortification, but highly necessary to mechanics. On geometry likewise depends the theory of cunning, mining, music, optics, perspective, drawing, mechanics, hydraulics, pneumatics, &c.

We may distinguish the progress of geometry into three ages; the first of which was in its meridian glory at the time when Euclid's Elements appeared; the second beginning with Archimedes, reaches to the time of Descartes; who by applying to the elements of geometry, gave a new turn to this science, which has been carried to its utmost perfection by our learned countryman Sir Isaac Newton, and by the German philosopher Leibnitz.

GEORGE, or knight of St. George, has been the denomination of several military orders. See GARTER.

GERBE, Fr., means literally a sheaf; but it here signifies a sort of artificial firework, which is placed in a perpendicular manner, and resembles a sheaf. See JETS de feu.

GESSAT.E likewise means the tithe which was formerly paid to the French en­ rates.

Faire GERBE de faerre à dieu, Fr., a figure on account of the genius or mune, which was in its meridian glory at the time of Descartes; who is the author of the same name, and by the German philosopher Leibnitz, was formerly paid to the French, to keep up an in­ tercourse with Egypt.

GESE, Fr., a weapon used in former times.

GESSAT.E and MATIUS were adopted by the Allobroges (a body of ancient Gauls) called independently of the broad cut and thrust sword, which the Swiss still wear. These instruments were only one cubit long; half the blade was nearly square, but it terminated in a round point originally sharp. Virgil in his Aeneid calls this species of blade, aghi, meaning, no doubt, to convey, that it was in general use among the neighboring inhabitants of the Alps. Not only the Romans, but the Greeks received it into their armies. The for­ mer retained the full apellation and the latter corrupted it into gese. This is the only weapon with which those soldiers were armed that escorted misdeemors, who were con­ demned to death, to the place of execu­ tion. The term gese was also applied to a sort of a javelin.

GESSATES, a people of whom Poly­ bius speaks in his history of the ancient Gauls, and who inhabited the countries lying adjacent to the Alps, and to the river Rhone. According to some writers, they were so called because they constantly wore gesses. The gess is said to have been a dart which the ancient Gauls exclusively used, and which some authors since confounded with the partisan, a sort of halbert, called by others a javelin. This word was used in Provence, as late as the year 1754; for in the inventory which was taken of the goods, furniture, &c. appertaining to the Templars, we find gesses or gesses particularly specified in the list of weapons and iron instruments, which was understood to mean gese, and under that appellation was deposited in the king's archives at Aix. See Boucher, Hist. Prev. L. v. ii. c. 4. p. 52. This same author further asserts, that the Gessi, and the Gez, took their names from that weapon. He quotes Julius Cæsar's account of the word gese in confirmation of his own opinion.

Many authors have mentioned the same term: among others, Justus, Lipsius, Hugo, Cheval, Vossius, &c. See GES CATES.

GESATE or GESAT.E, Fr., a knight among the ancient Gauls, who took de­ light in war, and frequently volunteered his services beyond the boundaries of his native country. Whenever a neighbor­ ing country made a levy of men, it was usual for the gessates to accompany the troops, from a conviction that it would be dishonorable in them to remain at home. These adventurers, or knights-errant, were called gessates, either on account of the gess or mune, which they carried, or, as Polybius imagi­ nes, on account of the subsistence which was paid them, and was called by that name.

GESTURE, a motion of the body inten­ ded to signify some idea, or passion of the mind. All officers and soldiers who make use of any menacing gesture before a commanding or superior officer, or before a court-martial, are liable to be punished by the laws of war.

GESE, Fr., a rentrant angle, which is made with slate or lead, and forms a gutter between two roofs. It is likewise called may, or pantile.

GERIAH, a port on the Malabar Mahattan coast of Hindostan, the capital part of Angria's dominions, which consisted of an extent of coast, from whence this warlike state was a perpetual source of uneasiness to the trading ships of all the European nations in India. It cost the English East-India company 50,000l. annually to protect their own ships. Eight or ten crabs, and forty or fifty gal­ livars, crowded with men, generally com­ posed Angria's principal fleet in 1754, destined to attack ships of force or burthen. The vessel no sooner came in sight of the port or bay where the fleet was lying, than they slipped their cables and put out to sea. If the wind blew, their construc­ tion enabled them to sail almost as fast as the wind; and if it was calm, the gal­ livars rowing toward the grubs: when within cannon shot of the shore, they generally assembled in her wake, and the
grabs attacked her at a distance with their prow guns, firing first only at the masts, and taking aim when the three masts of the vessel just opened all together to their view; by which means the shot would probably strike one or other of the three. As soon as the chase was dismasted, they came nearer, and battered her on all sides until she struck; and if the defence was obstinate, they sent a number of gallivants, with two or three hundred men in each, who boarded sword in hand from all quarters in the same instant.

The English trusting to the report of the natives, had until the year 1756, believed Gibraltar to be at least as strong as a mountain which was inaccessible from the sea, for this reason it was resolved to send vessels to reconnoitre it; which service commodore James, in the Protector, with two other ships, performed. He found the enemy's fleet at anchor in the harbor, notwithstanding which, he approached within cannon shot of the fort, and having attentively considered it, returned to the end of December to Bombay, and described the place, such as it truly was, very strong indeed, but far from being inaccessible or impregnable. This place was taken by the English troops under the command of colonel Clive. There were found in it 200 pieces of cannon, six brass mortars, and a great quantity of ammunition, and military and naval stores of all kinds; the money and effects of other kinds, amounted to 1,200,000/. sterling. All this booty was divided amongst the captors, without any reserve either for the nation, or the company. In less than a month the English, with their allies the Mahrattas got possession of all the territories wrested from the latter by Angna's predecessors, and which they had for seventy years despaired of ever being able to recover.

**GIBERNE**: Fr. a sort of bag in which the grenadiers held their hand-grenades. It was worn like a powder flask. They likewise carried, independent of this bag, cartridges containing 18 or 22 charges.

**GIBRALTAR**, a strong fortress of Andalusia, in Spain. Gibraltar was formerly thought to be impregnable; but it was taken by Sir George Rooke in 1704, and has remained in the hands of the English ever since. It has been several times attacked by the Spaniards, who have always been unsuccessful. Their last attempt to recover it was made September 13th, 1782, with floating batteries, in which were mounted 112 brass cannon and mortars. The French united with the Spaniards on this memorable occasion; and the brother to the last king of the French, (then Count D'Artagnan) commanded the camp of St. Roche, from whence the offensive operations were directed. General Elliot, (afterwards called lord Heathfield) had prepared a great number of red-hot balls against the attack; and these so effectually destroyed the floating batteries, that the Spaniards were greatly annoyed, and relinquished the enterprise. For particulars, see Drinkwater's siege of Gibraltar.

**GIN**, in military mechanics, is a machine for raising great weights; it is composed of 3 long legs, 2 of which are kept at a proper distance by means of 2 iron bars fixed on one of the legs by a staple passing through a hole at one end: the other end has a hook which enters into a staple fixed into the other leg so as to be taken off or put on at pleasure. At 3 feet from the bottom is a roller, upon which the cable was wound; and the 3 legs are joined together with an iron bolt, about which they move; to this bolt is also fixed an iron half-ring to hook on a windlass: when the gin stands upright, so as the legs stand at a proper distance, one end of the cable is fastened to a gun, mortar, or other weight; and the other passes through the pulleys and about the roller, which is turned round by means of hand-spikes passing through the holes in the ends of the roller; whilst a man holds the cable tight, the gun is raised to the height required, so that the carriage may be put under it.

**GIN Triangle**—Length of arms of the gin 16 feet 2½ inches. Roller, 6 feet long. Tack' fall, 76 feet of 3 inch white rope. Sling, 6 inch white rope.

The newly constructed gin, by having one half of the roller of a greater diameter than the other, gives a new power, that of elevating or lowering the object in a greater or lesser proportion, according to the end of the cylinder upon which the cable is fixed.

For the different exercises of the gin, see the word Exercise.

**GINE**, a place in India, situated 3½ miles N. W. of Pondicherry.

**GINJALS or GINGAULS**, an East Indian name, signifying large musquets used with a rest, somewhat similar to those invented by Marshal Vauban, for the defence of forts.

**GIRANDE**, Fr. the chief cluster, or assemblage of an artificial firework, with which a show or illumination is generally concluded. A girande may be made by uniting several chests or clusters together, and securing with a match of communication, a regular inflammation.

**GIRANDOLE**, Fr. literally, a chandelier; a cluster of diamonds with the Spaniards on this memorable occasion; and the brother to the last king of the French, (then Count D'Artagnan) commanded the camp of St. Roche, from whence the offensive operations were directed. General Elliot, (afterwards called lord Heathfield) had prepared a great number of red-hot balls against the attack; and these so effectually destroyed the floating batteries, that the Spaniards were greatly annoyed, and relinquished the enterprise. For particulars, see Drinkwater's siege of Gibraltar.

**GIRANDOLES**, Fr. circles ornamented with fuses. They are used in fireworks. See Soleils tournants.

**GIROUETTES**, Fr. Weathercocks, vanes. They are seldom or ever used on shore, except as weathercocks on tops of church-steeples, &c.
This young officer is as light as a girouette. This young officer is as light as usual.

Glaces pieces of wood which are made use of in the construction of platforms to batteries, and upon which the madriers or broad planks are placed.

Glacier. See Fortification.

Glaise, Fr. to do over with potter's clay, or potter's earth. Glaiser, Fr. to cover with potter's earth, or clay.

Glave, a broad sword, or from the ancients who were of English or Norman extraction, should forfeit the name of store-keeper, or store-house-keeper.

Goladar, an East Indian term, signifying a store-keeper, or store-house-keeper.

Glais, Fr. knoll.

Glaph, a very ancient act of parliament which directed that the Irish nobility and gentry who were of English or Norman extraction, should forfeit the privileges of their original country, if they did not shave the upper lip. This act took place when Ireland was first conquered, and its object was to distinguish the descendants of the invaders from the old Irish nobility that traced its origin to Milesius, who wore their hair and their beards very long; hence glide means loose, flowing.

Glaph, ou Glyphe, Fr. signifies generally every species of canal, or hollow, which constitutes any part of ornamental architecture.

Gloires ou ballons d'artifices, Fr. globes or balloons, which are filled with artificial fire. They are used to set fire to an enemy's town or works, &c.

Gloires de feu, Fr. a cartouch made of a small cylinder of paper, which is laid upon a wooden bowl and made perfectly round. It is afterward perforated in several places, and filled with the inflammable composition that is used in the making up of flares à feu. The instant it catches, a very bright and lively fire issues out of the several holes.

Glories. See Geography.

Gloire, Fr. an artificial fire-work, which resembles a large sun. It is made by means of an iron wheel containing four circles, each circle diminishing towards the centre, and kept at equal distances from one another. Forty-eight jets de feu, or fire spouts, are tied to these circles; each jet is twenty French inches long, and there are twelve of them fixed to each of the four circles. The gloire or soleil is placed in the middle of the principal fire-work.

Military Glory, honor, reputation and fame, acquired by military achievements. That precarious splendor, which plays round the brows of a warrior, and has been collected by hard service, extraordinary genius, and unblemished integrity; but which may desert the greatest hero through one unfortunate failure.

Go. The verb to go is variously used in a military sense, as to march in a hostile, or warlike manner. To go off, implies to depart from any post. To go on, to make an attack. To go out, to revolt. To go out, to go upon any expedition, &c.

To go out is likewise frequently used to signify the act of fighting a duel, as & went out with a breast officer, and was slightly wounded.

Goa, a strong town on the Malabar coast, belonging to the Portuguese. The chief trade is in arrack. This fort was taken by the English April 24, 1756.

Goladar ou Golobar, an East Indian term, signifying a store-keeper, or store-house-keeper.

Golconda, a province in India, formerly comprehending the nabobships of Arcot, Canoua, Cudapa, Rajamundry, and Chicacoa.

Golconda, formerly a city and the capital of the province. It stood at the foot of the rock and fortress of the same name; but the city has long since been deserted; and its inhabitants removed to Hyderabad: nevertheless its name is still frequently used in Hindostan, when in reality the city of Hyderabad is meant.

Golden Rock, a spot near Trichinopoly in East India, which has been renowned by the victory that was gained by the British troops over the French, and their allies in 1753.

Gondama, Gondama, a river in India, which makes the northern boundary of the province of Arcot; Condam extends between this river and the river Krishna.

Gondola, Gondole, Fr. this word may be taken in two senses, viz, to signify a cup; or a small barge which is flat and long in its construction, and is
only moved, or worked by oars. Gondola-
lases are much used upon the canals in Ve-
nice; they are extremely remarkable for
their shape, and the great swiftness with
which they glide through the water.

The middle sized ones are about thirty
feet long, and are only four feet broad
across the middle, gradually tapering to-
wards each end, and rising in two sharp
and narrow points to the ordinary height
of a man. Upon the prow is fixed an
iron of uncommon length, which does not
exceed half a finger's breadth in thickness;
but which is four fingers broad, and is
so disposed as to cut the air. The upper
part of this iron which is faster than the
rest, stretching out in the shape of a lge
hatchet a full foot in length: so that
when the gondola is on her way, it seems
to menace everything before it, and to
force its passage.

Gondoliers, Gondolier, Fr. the men
who have the management of the gondolas at Venice, are so called. The
equivalent of a gondola seldom exceeds
two persons, even on board of those barges
that belong to the foreign ambassadors.

It sometimes happens that there are
four, when persons of distinction go to
the country houses. The gondoliers
never sit down, but row the barge standing
upright and push forward. One man
always plies in the fore part of the gondola,
and the other is at the poop.

Gonfalons, an ensign or standard.

Gonfanon, Sard. Gonfalon, Fr.

Gon, the Persian word for a village.

Gong walls, villages, the mi-
litia in India so called; from gong, a vil-
lage, and walla, a man.

George, See Fortification.

Gorge, Fr. likewise means any ho-
low between a chain of mountains, that
allows a passageway in an open country.

Gore, Fr. a sort or concave
moulding belonging to ornamental archi-
tecture.

Gorget, Fr. in ancient times,
that part of the armor which covered
the neck of a man. Hence our word
gorget.

Gorecons, in military antiquity, a
warlike female nation of Lybia, in Afri-
can, who had frequent quarrels with
another nation of the same sex, called
Amazons.

Gothic, (Gothique Fr.) any thing
constructed after the manner of the Goths.
Various works and buildings that appear
to have been constructed without any
particular regard to the rules of art, are
so called. All the old cathedrals are in
the Gothic taste.

Monseigneur de Fenelon has said, that
Gothic architecture can support an
immen* vault upon the slightest pillar.
The elevation of it is so wonderful, that
although it seems ready to tumble, is
perforated and full of windows in every
part, and stands as if it were suspended in
the skies, it nevertheless lasts centu-
ries, and almost always proves more du-
table than the most regular buildings.

Goutte, Gouttiere, Fr. a goutic
pediment. In modern architecture, all
circular or triangular gable ends are so
called, when they are sculptured, or three
leaved.

Goudron or Goudran, Fr.
pitch and tar.

Goudrons, Fr. small fascines, or
faggots which are well steeped in wax,
pitch, and glue, and then are lighted for
the purpose of setting fire to boats,
planks, traverses, galleries, pontoon, &c.
They are likewise used in various shapes
and ways, to convey light into the ditches,
or upon the ramparts.

Governor of a fortification, is, or
should be, a person of great military
knowledge; and is a very considerable
officer, whose authority extends not only
over the inhabitants and garrison, but
over all troops that may be there in winter
quarters, cantonments, or quarters of re-
freshments.

Duty of a Governor in time of peace,
is to order the guards, the rounds, and the
patrols; to give the parole and counter-
parole; to visit the posts, to see that both
officers and soldiers do their duty, and that
every thing goes on regularly and in good order.

Duty of a Governor in time of war,
is to consider the place in such a
manner, as if the enemy were going to be-
siege him, not omitting the least thing
that may contribute to a long and obsti-

tate defense; he should therefore take
particular care to keep the fortifications
in good repair; clearing the country round
for miles, and where they should be
made, how to keep them up constant re-
pair, or to make new ones if they are want-
ed, taking care to construct them so that the enemy may not have it in his power to destroy them, either with his cannon or mortars. If the governor be not sufficiently skilled in the systems of attack and defense, he should frequently converse with the officers of engineers and artillery who understand them; examine the works together, see what may be done to render the defense of the place as long as the circumstances and nature of the works will admit of; and to make it familiar to himself, he should set down a project of defense upon paper, and have it canvassed by the most skilful officers of artillery and engineers about him. This must be done in private; that spies or deserters may not discover the weak parts to the enemy. In short, nothing should be neglected on the part of the governor. He should see that the place be well supplied with ammunition, and wholesome provisions; that the hospitals are in good order, and provided with able physicians and surgeons, as likewise with every thing wholesome and necessary, that the sick and wounded may be well taken care of.

The powder magazines above all things, require his most special care: for though they are built bomb-proof, yet, when a great number of shells fall upon them, they seldom resist their shock; for which reason they should be made 10 feet thick with earth, and a layer of fascines, dung and strong planks, laid over them. 

GOUJAT, Fr. A soldier's boy. It likewise signifies an ignorant good-for-nothing fellow.

GOUINE, a woman of infamous character.

GOURDIN, Fr. A flat stick, two fingers in breadth, which was used by the French to humour galley slaves.

GOURGANDINE, Fr. A trumpeter of the lowest species, a soldier's trull.

GOUVERNEMENT, Fr. Anciently meant a certain specific allotment of provinces, towns, &c. under the superintendence and government of one person who received his powers from the king, and had subordinate officers under him. There were twelve governments in France, at the first institution of monarchy, called grands gouvernements gérans, which were particularly noticed in all the general sitings of the kingdom. They were first formed by Hugues Capet, in 987. Previous to the revolution in 1789, they were subdivided into 39 general provincial governments with inferior officers, subject to their jurisdiction; such as governors of towns, and commandants of fortified places. Each governor general was entitled to a guard of cavalry, a certain number of halberdiers and armed men on foot.

GOUVERNUR d'une place de guerre, Fr. The governor of a fortified town or place. See governor of a fortification.

GOWA. A witness is so called in India.

GRABS. Vessels peculiar to the Malabar coast. They have rarely more than two masts, although some have three; those of three are about 300 tons burthen; but the others are not more than 150 tons; they are built to draw very little water, being very broad in proportion to their length, narrowing from the middle to the end, where instead of bows they have a prow, projecting like that of a Mediterranean valley, and covered with a strong deck level with the main deck of the vessel, from which, however, it is separated by a bulk head, which terminates the fo'castle. As this construction subjects the grab to pitch violently when sailing against a head sea; the deck of the prow is not enclosed with sides as the rest of the vessel is, but remains bare, that the water which dashes upon it may pass off without interruption. On the main deck under the fo'castle are mounted two pieces of cannon nine or twelve pounds, which point forwards through the port holes cut in the bulk head, and fire over the prow; the cannon of the broadside are from six to nine pounds.

GRAFF. See DITCH or BASTION.

GRAIN, Fr. A word used in the repairing of damaged cannon.

Meter or GRAIN a file pier, to fill up the touch-hole of a piece of ordnance, the heating it in such a manner, that the metal which is poured in may assimilate and mix. When it becomes cold, a fresh aperture is made or bored.

GRAIS, Fr. Large stones resembling Scotch pebbles. They are used to pave the high-roads, and streets.

GRAM, the grey peas are called by this name in Hindustan, and is the common food of horses, for which purpose it is previously steeped in water.

GRANÉN, in botany.

GRAMINE, couronne gramine, Fr. A grass or gramineous crown, which was made among the Romans. See Ornement.

GRANADE. False orthography. See Granade.

GRANADIER, false orthography. See Granadier.

GRAND. This word is frequently used both in French and English as a word of title or distinction; it means great. In French it also means large.

GRAND division. The battalion being told off by two companies of each division, is said to be told off in grand division; hence grand division firing is, when the battalion fires by 2 companies at the same time, and is commanded by one officer only.

GRAND maître d'artillerie, Fr. Grand master of ordnance, &c. &c.

GRAND feu brillant, Fr. A star exhibited in artificial fireworks. See Grèzes.
GRAND VIZIR. See VIZIR.

GRANITE, (granit, Fr.) a sort of hard stone which is variegated by spots and streaks, and is rather encrusted. It is very common in Egypt. There is a species of granite, that is of a white and violet color; and another which is green mixed with white. The most ordinary kind has grey and green spots scattered over a grisy white.

Columns 40 feet high have been seen in Egypt which consisted wholly of one piece of granite. The Egyptian Pyramids are made of that marble; such stones were distributed by the Romans, as military gratifications or rewards, to deserters lost their influence in the subsequent ages. Sometimes the generals gave distinctions, in testimony of their valor and good conduct. These rewards were distributed according to rank. This custom was prevalent in the most ancient times. According to Vegetius, all monies distributed by the Romans, as military gratifications or rewards, were deposited in the ensign or standard-bearer’s hands, to be occasionally given to the soldiers. Sometimes the generals gave distinctions, in testimony of their valor and good conduct. These rewards were distributed according to rank. This custom was prevalent in the most ancient times. According to Vegetius, all monies distributed by the Romans, as military gratifications or rewards, were deposited in the ensign or standard-bearer’s hands, to be occasionally given to the soldiers. Sometimes the generals gave distinctions, in testimony of their valor and good conduct. These rewards were distributed according to rank. This custom was prevalent in the most ancient times. According to Vegetius, all monies distributed by the Romans, as military gratifications or rewards, were deposited in the ensign or standard-bearer’s hands, to be occasionally given to the soldiers. Sometimes the generals gave distinctions, in testimony of their valor and good conduct. These rewards were distributed according to rank.

GRANOVIR, Fr. a term used in the French artillery, to signify a sort of sieve, in which there are small round holes for most powderto be passed through, in order to make the grains perfectly round.

GRAPE PLANT, (grapin, herisson, risson, or harpca) the French call it grapein, herisson, risson, or harpca; it is a sort of small anchor, with four or five flukes or arms, commonly used to ride a boat.

GRAPPLING-IRON, in the art of war, are composed of 4, 5, or 6 branches, bent round and pointed, with a ring at the root, which is fastened a rope to hold by, when the grappling is thrown. Any thing in order to drag it, as to say hold it.

Fire Grappling, an instrument which nearly resembles the above, only that it is fitted with strong bars instead of flukes, and is fixed at the yard arms of a fire-ship to grapple her adversary, and set her on fire. The French call this instrument graspin de brûlis.

GRASS, (gazon, Fr.) a sort of hirsute plants used in feeding cattle.

GRASS PLOTS, given walks which for the most part are made by laying turf or green sods.

GRATICULER, Fr. to divide with a pencil on a sheet of paper, any design or drawing into small equal squares, in order to reduce the original sketch or picture, or to enlarge it by the same process.

GRAVITY.—Table of the Specific gravity of several Solid and Fluid Bodies.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Specific Gravity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platina</td>
<td>23.05</td>
</tr>
<tr>
<td>Fine Gold</td>
<td>10.54</td>
</tr>
<tr>
<td>Standard Gold</td>
<td>18.98</td>
</tr>
<tr>
<td>Quick Silver</td>
<td>11.34</td>
</tr>
<tr>
<td>Fine Silver</td>
<td>10.34</td>
</tr>
<tr>
<td>Standard Silver</td>
<td>10.53</td>
</tr>
</tbody>
</table>
from 370 to 520 yards, and is seldom adopted but towards exterior sides, is from 185 to 260 toises, or 1728 cubic inches, to which result the following rules:

1. To find the magnitude of any body from its weight.

As the tabular specific gravity of the body, is to its weight in avoirdupois ounces, so is one cubic foot, or 1728 cubic inches, to its contents in feet or inches respectively.

2. To find the weight of a body from its magnitude.

As one cubic foot, or 1728 cubic inches, is to the content of the body, so is the tabular specific gravity to the weight of the body.

GREAT fortification. One of the divisions of the first system of M. de Vauban.—It consists in a fortification whose exterior sides is from 185 to 260 toises, or from 370 to 520 yards, and is seldom adopted but towards river or a marsh.

GREAT radius. The whole oblique radius. See FORTIFICATION.

GRECIAN fire, fr. Grece, Fr. A sort of artificial fire, which inquires itself beyond the surface of the sea, and which burns with increased violence when it mixes with that element. Its directions are contrary to the course of natural fire; for the flames will spread themselves downwards, to the right or left, a ready to the movement that is given. It is composed or made up of naphtha, bitumen, gum and pitch; and it can only be extinguished by vinegar mixed with urine and sand, or with unguent leather or green hick. Some writers assert, that it was invented by an engineer (belonging to Heliopolis, a town in Syria,) whose name was Gallinicus, and who used it with so much skill and effect during a naval engagement, that he destroyed a whole fleet belonging to the enemy, upon which were embarked 35,000 men. This combustible matter has retained the name of Grecian fire, because the Greeks first practised the invention. It is asserted indeed, that the secret of making Grecian fire, which should be unextinguishable, has been lost since then; we say unextinguishable, because the ancients did not know, as we do, how to repress or put out the flame.

According to the author of Geasurer Militia, a powerful composition, which could only be extinguished by strong vinegar (a secret unknown to the ancients) might be made of the following combustible materials: viz. pitch, rosin, tallow, camphor, turpentine, salt of nitre, liquid varnish, oil of sulphur, bork, rock oil, flux, charcoal finely pulverized: the whole of which being boiled together, and before it grows cold, mixed with quick lime: a consistance is formed that will be susceptible of the most subtle and destructive fire.

GRENADES, 2 in the art of war, GRENADES, or are hollow balls or GRENADES, shells of iron or other metal, about 2 1/2 inches diameter, which being filled with fine powder, are set on fire by means of a small fuse, driven into the fuse-holes, made of well-seasoned beech wood, and formerly thrown by the grenadiers into places where men stood thick, and particularly into the trenches and other lodgments made by the enemy. As soon as the composition within the fuse gets to the powder in the grenade, it bursts into many pieces, greatly to the injury of all who happen to be in its way. Grenades were first made about the time shells were invented (which see) and first used in 1594.

Grenades have much sunk into disuse; but nothing is more effectual than grenades thrown into the midst of the enemy, who have jumped into the ditch. During the siege of Cassel, under the Count de Lisle, in the campaign of 1762, a young engineer undertook to carry one of the outworks, with a much smaller detachment than had before attempted it without success. He fixed his object with ease, from the use of grenades, which is a proof that they should not be neglected, either in the attack or defence of posts.

Grenade, grenade, Fr. There is 1

<table>
<thead>
<tr>
<th>Material</th>
<th>Weight (Avoirdupois Ounces)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>6000</td>
</tr>
<tr>
<td>Copper halfpence</td>
<td>3815</td>
</tr>
<tr>
<td>Gun metal</td>
<td>8784</td>
</tr>
<tr>
<td>Cast brass</td>
<td>8000</td>
</tr>
<tr>
<td>Steel</td>
<td>7850</td>
</tr>
<tr>
<td>Iron</td>
<td>7545</td>
</tr>
<tr>
<td>Cast iron</td>
<td>7425</td>
</tr>
<tr>
<td>Tin</td>
<td>7320</td>
</tr>
<tr>
<td>Crystal glass</td>
<td>7190</td>
</tr>
<tr>
<td>Marble</td>
<td>2700</td>
</tr>
<tr>
<td>Common green glass</td>
<td>2600</td>
</tr>
<tr>
<td>Flint</td>
<td>2370</td>
</tr>
<tr>
<td>Common stone</td>
<td>2190</td>
</tr>
<tr>
<td>Clay</td>
<td>2180</td>
</tr>
<tr>
<td>Brick</td>
<td>2000</td>
</tr>
<tr>
<td>Common earth</td>
<td>1984</td>
</tr>
<tr>
<td>Nitre</td>
<td>1920</td>
</tr>
<tr>
<td>Ivory</td>
<td>1825</td>
</tr>
<tr>
<td>Bristle stone</td>
<td>1810</td>
</tr>
<tr>
<td>Solid gunpowder</td>
<td>1745</td>
</tr>
<tr>
<td>Sand</td>
<td>1720</td>
</tr>
<tr>
<td>Coal</td>
<td>1690</td>
</tr>
<tr>
<td>Boxwood</td>
<td>1670</td>
</tr>
<tr>
<td>Sea water</td>
<td>1650</td>
</tr>
<tr>
<td>Common water</td>
<td>1600</td>
</tr>
<tr>
<td>Oak</td>
<td>1590</td>
</tr>
<tr>
<td>Gunpowder, close stacked</td>
<td>937</td>
</tr>
<tr>
<td>Do. in loose heap</td>
<td>8 6</td>
</tr>
<tr>
<td>Ash</td>
<td>800</td>
</tr>
<tr>
<td>Maple</td>
<td>755</td>
</tr>
<tr>
<td>Linen</td>
<td>600</td>
</tr>
<tr>
<td>Fir</td>
<td>520</td>
</tr>
<tr>
<td>Charcoal</td>
<td>240</td>
</tr>
<tr>
<td>Cork</td>
<td>1.25</td>
</tr>
</tbody>
</table>

The several sorts of wood are supposed dry.
sort of grenade which is thrown out of a mortar.

It is sometimes used for the purpose of annoying the besieging enemy; in which case quantities are rolled down the rampart, into the fosses, or ditch, or on the works of miners.

A grenade resembles a drum or shell, with this only difference, that the grenade has not any handles to it.

There are some grenades, called grenades à main or hand grenades, whose calibre is equal to that of a 3-pounder. The charge is from five to six ounces of gunpowder, or thereabout. They are extremely serviceable on many occasions; but particularly so to throw among the men that are too near in the trenches; numbers of whom must inevitably be wounded. The vent of a hand grenade contains about six lines, or half an inch.

The following proportions belonged to grenades, according to their several diameters in former times; they have been much improved.

Grenades whose calibre is equal to that of a 33-pounder, contain about 6 French inches or more diameter, 8 lines in thickness, and 16 pounds in weight.

Grenades whose calibre is equal to that of a 24-pounder, contain 5 French inches 5 lines diameter, six lines in thickness, and 12 pounds in weight.

Grenades whose calibre is equal to that of a 16-pounder, contain 4 French inches 9 lines diameter, 5 lines in thickness and 8 pounds in weight.

Grenades whose calibre is equal to that of a 24-pounder, contain 5 French inches 8 lines diameter, and a little more than 5 lines thick.

Grenades whose calibre is equal to that of a 33-pounder, contain 6 French inches, and are 6 lines thick. For their dimensions see the word shell.

GRENADIER, 2 a foot soldier armed with fred-ck, baonet, and in some services with a larger grenades carry, besides their arms, a cartridge box that will hold 36 rounds. They are always the tallest and stoutest men, consequently the first upon all attacks. Every battalion of foot in the British army has generally a company of grenadiers belonging to it, which takes the right of the battalion. Grenadiers were first instituted in France in 1665, by having 4 or 5 to each company; but in the year 1670, they were formed into companies, and in 1685, were first known in the British service.

Horse GRENADES, called by the French grenadiers volants, or flying grenadiers, are such as are mounted on horses back, but fight both on foot and horseback. They were first established in France by Louis XIV. in 1676, and formed into squadrons.

GRENADIERS auxiliaries, Fr. Auxiliary grenades. During a siege, and when a place was closely invested, a certain number of grenadiers were chosen.
out of the battalions belonging to the trenches, for the purpose of making head against the besieged, whenever they might risk a Sally or attempt the work. It was the peculiar duty of these men to advance forward on every occasion, to set fire to the stockades or to the batteries, and to crush every attempt which might be made by the enemy to annoy the men that were posted in the trenches, &c.

It was customary among the French to increase the number of these grenadiers, who were first in action and did the duty of the trenches. These were called grenadiers positieux, or extra grenadiers.

Grenadiers, or Grisons, the bars or haversacks which hold the grenades. They were worn like powder-flasks.

Grenier, Fr. (meilleur en grisier.) To store in thin bundles.

Grenoir, Fr. (une epicerie d'article.) A sort of lave through which gunpowder was passed, and formed into grains of different size.

Greve, Fr. Any flat piece of ground on the site of a town or near the sea. A place in Paris is so called, where, during the old government of France, all criminals were executed. Greve is also used to signify the gravel stones which are incorporated with cement, &c.

Greve, Fr. armor, or covers for the legs. They were anciently worn by the French; and generally consisted of a piece of steel or stilet leather, which protected the front part of the leg.

Greffe, Fr. means literally a clasp, but in a military sense, as accepted by the French, it signifies an iron instrument which is made like a hook, and is used by men to pick out the small stones that are incorporated with cement, &c.

Griignon, Fr. broken biscuit.

Grisons, a people formerly allied with the British but since annexed to Switzerland. They are about the mountainous parts of the Alps in Italy, and supported a well-organised army, called the army of the Grisons, under General Macdonald during the war.

Gros, Fr. A body of soldiers; a detachment. The French frequently say — Un gros de cavalerie, a body of cavalry; un gros d'infanterie, a body of infantry.

Ground, The field or place of action.

Ground-work, in military architecture. See Foundation.

Ground-army, an old word of command on which the soldiers laid down their arms upon the ground. This word of command has been exploded since the introduction of the new exercise. Soldiers are now ordered to pile or stack arms.

To take ground. A battalion or company is said to take ground, when it extends in any given direction. This term is likewise used in duelling, as—They took their ground at eight or ten paces from one another.

Grue, Fr. A crane. It is frequently used in the embarkation and debarcation of cannon, &c.

Guarantee. Any person or power who undertakes for the performance of any stipulations agreed on between two other powers or parties.

Guards, in the military art, is a duty performed by a body of men to secure an army or place from being surprised by an enemy. In garrison the guards are relieved every day; hence it comes that every soldier mounts guard once every three or four days in time of peace, and much oftener in time of war. See Horses.

Guards, also imply the troops kept to guard generals and other public officers, and sometimes consist of both horse and foot.

Horse grenadier guards. The first troop was raised in the year 1669 in England; the second in 1702. Each troop had a colonel, 1 lieutenant-colonel, 1 major or major, three ensigns and captains, 3 lieutenants, 4 adjutants, 3 cornets, and 60 private men, they have been abolished.

British life guards. In consequence of the success of the horse grenadier guards, two regiments have been raised for the specific purpose of guarding the metropolis, and of royal escorts. They are generally called life guards. Each regiment consists of six troops of 53 men and 1 kettle drum.

Royal regiment of Horse Guards. This regiment which is commonly called the Oxford Blues, from having originally been raised by the Earl of Oxford, consists of nine troops.

Yeomen of the guards, a kind of foot guards to the British king's person, and are generally called by a nick-name—the beef-eaters. They were first raised by Henry VII, in the year 1486, consisting of 210 men of the first rank, inner gentry, and of a larger stature than ordinary, each being required to be 6 feet high. At present there are but 150 on constant duty, and 70 more not on duty; and when any one of the 150 dies, his place is supplied out of the 70. They go dressed after the manner of Henry VIII. Their pay is 2 shillings and 6 pence per day.

Four guards, are regiments of foot appointed for the guard of the British king and his palace, and for general service. There are three regiments of them, called the 15th, 16th, and 31st regiment of foot guards. They were raised in the year 1660. The first regiment is at present commanded by 1 colonel, 1 lieutenant-colonel, 3 majors, 27 captains, 1 captain-lieutenant, 64 lieutenants, 24 ensigns, and 3 adjutants, and consists of 3 battalions. The 2nd regiment, or Coldstream, has 1 colonel, 1 lieutenant-colonel, 2 majors, 16 captains, 1 captain-lieutenant, 42 lieutenants, 14 ensigns, and 2 adjutants.
The Guard only mounts in the time of a siege, and consists sometimes of 6, 4, or 6 battalions, according to the importance of the siege. This guard must oppose the besieged when they sally out, protect the workmen, &c.

Petit Guard, a good number of horse and foot, always in readiness in case of an alarm: the horses are generally saddled all the time, and the riders booted.

The foot draw up at the head of the battalion, frequently at the beating of the tattoo; but afterwards return to their tents, where they hold themselves in readiness to march upon any sudden alarm. This guard is to make resistance, in case of an attack, until the army can get ready.

Baggage Guard, is always an officer's guard, who has the care of the baggage on a march. The wagons should be manned by companies, and follow one another regularly; vigilance and attention in the passage of hollow-ways, wood, and thickets, must be strictly observed by this guard.

Ordinary Guards, such as are fixed during the campaign, or inarrison towns, and which are relieved daily.

Extraordinary Guards, or detachments, such as are only commanded on particular occasions; either for the further security of the camp, to cover the foragers, or for convoys, escorts, or expeditions.

Soldiers are sometimes ordered to take extraordinary guards, as a punishment for slight misconduct.

Quarter Guard, is a small guard commanded by a subaltern officer, posted in the front of each battalion, at 200 feet or more before the front of the regiment.

Rear Guard, that part of the army which brings up the rear on a march, generally composed of all the old guards of the camp.

The rear guard of a party is frequently 8 or 10 horse, about 500 paces behind the party. Hence the advanced guard goes out upon a party forms the rear guard in a retreat.

Rear Guard, is also a corporal's guard placed in the rear of a regiment, to keep good order in that part of the camp.

Standard Guard, a small guard under a corporal, which is taken out of each regiment of horse, and mounts on foot in front of each regiment, at the distance of 20 feet from the streets, opposite to the main street.

To be upon Guard. See Mounting Guard.

To relieve Guard. See relieve.

Turn out the Guard. A phrase used
when it is necessary for the guard to form for the purpose of receiving a general or commanding officer; on the approach of an armed party; on the beat of drum or sound of trumpet, or any alarm.

**Post Guard.** A guard detached from the main guard. All officers on post or detached guards are to send a report, night and morning, to the captain of the main guard, and at all other times, when any thin extraordinary occurs. Those who command at the posts are to draw up the bridge, or shut the barracks, on the approach of any body of armed men, or of which they are to give notice to the officer of the main guard, and not to suffer any of them to come into the garrison, without leave from the governor or commander.

**Out Guards.** Under this head may be improperly be considered outposts, advanced picquets, and detachments. The duties of outposts are of various kinds, as usually to require detailed instructions according to circumstances. The following directions are generally applicable, and must be strictly attended to, should there be any occasion for it to act upon in consequence. The duty of outposts, etc., is chiefly confined to light troops, who are occasionally assisted and relieved by the line. They are always, in that case, under the immediate direction of some general. But when circumstances render it necessary, that this duty should be done the line, the outposts fall under the command of the officers of the day, unless some particular officer be put in order for that specific command.

All outguards march off without trumpeting sounding or drums beating. They pay no compliments of any kind; neither do their services take any complimentary notice of officers passing near their posts. No guards are to presume to stop any persons coming to camp with provisions (unless they be particularly ordered to do so), and are on no account to exact or receive any thing for their free passage.

Any officer, trumpeter, or other person, who comes from an enemy’s camp, is to be secured by the first guard he arrives at, till the commander in chief’s, or the general’s pleasure is known. When a deserter comes in from the enemy, the officer commanding a post, or guard, at which he arrives, is immediately to send him under a proper escort, (without permitting him to be delayed or examined,) or any questions asked him to the officer commanding the outposts, who, after inquiring whether he brings any intelligence immediately relating to his own post, will forward him to head-quarters.

The men on advanced picquets are to carry their provisions with them, ready cooked, when circumstances will permit. The cavalry to carry sufficient forage for the time they are to be out. It is the duty of officers on all guards to inspect every relief of sentries, both when they go on, and come off their posts; to call the roils frequently, and by every means in their power to keep the men under their command in the most perfect state of vigilance and preparation.

Officers commanding outposts are to send guides, or orderly men, to the major of brigade of the day, or to the brigade-major of their own brigades, as circumstances require, in order to conduct the new guards, and to carry such orders as may be necessary. When the army is on a march, the officers must apprise the brigade-major of the situation of their posts, as soon as they arrive at them. All detachments of brigades, which are ordered to march immediately, are to be taken from the picquets, and replaced directly from the line. Whenever detachments exceed 200 men, or upwards, a surgeon or surgeon’s mate is to be sent from the corps of the officer who commands. On particular duties, the attendance of a surgeon or mate may be requisite with smaller detachments. Detachments of cavalry, of 50 or upwards, will be attended by a farrier.

As soon as an officer commanding an outpost, or advanced picquet, (whether of cavalry or infantry) arrives on his ground, he must endeavor to make himself master of his situation, by carefully examining, not only the space he actually occupies, but the heights within musket-shot; the roads and paths leading to or near his post, ascertaining their breadth and practicability for cavalry and cannon. He should examine the hollow ways that cover the approach of an enemy; and, in short, consider all the points from which he is most likely to be attacked, either by cavalry or infantry. He will, by these means, be enabled to take measures to prevent the possibility of being surprised, and should be attacked during the night, from the previous knowledge he has obtained of the ground, he will at once form a just estimate of the nature of the attack, and make his arrangements for defence with promptitude and decision. In order to convey the same secrecy to his men, and to prepare the most inexperienced for sudden and unexpected attacks, an officer upon an outpost will do well to put them upon the alert, by skillfully occasioning false alarms. But these must not be often repeated, nor when practised be made known to his men, as having proceeded from himself; since supineness and inactivity might by degrees be the consequence of such a discovery.

An intelligent officer upon an outpost, even unprovided with engranching tools,
will materially strengthen his post, whereas the observer would remain inactive.

A tree filled with judgment; brushwood out to a certain distance; pointed sticks about breast high, placed on the points most assailable by an enemy, may be attended with the greatest advantages, and can be collected with the common hatches, which the men carry out fire-wood. In short, every impediment which an officer, acting on the defensive, can throw in an enemy's way, ought to be scrupulously attended to. Independently, therefore, of the means which he adopts for the immediate protection of his post, he must look beyond that point; and as nothing checks the ardour of troops more than an unexpected obstacle, with an hundred yards, more or less, of the place attacked, he must on his arrival at the outpost, throw up some temporary impediment at that distance. See Am. Mil.

Guarding Guards. It is indispensably necessary, that every officer should know how to mount and come off guard.

All guards parade with order'd arms, and unfixed bayonets, without any intervals between them, the ranks open. The officer brings the guard to a shoulder; and the officers with their swords drawn, and non-commissioned officers commanding, orders, are formed about forty paces in front of the centre, in two ranks, facing the line, where they are to receive the old parade and such orders as may be given them.

The major or commanding officer gives the word of command.

"Officers and non-commissioned officers—Take post in front of your respective guards. Outward face—March!" As soon as they have taken post, fronting their respective guards, the word of command will be given—

"Officers and non-commissioned officers—to your guards—March!—Front!—Halt!"

"Officers and non-commissioned officers, inspect your guards!"

The several officers and non-commissioned officers then inspect their guard as quick as possible. When there is a captain's guard, each officer is to take a rank, the serjeants accompanying them. As soon as the inspection is over, the adjutant goes down the line and receives the report of each guard; the officers return to their posts; and the major, or commanding officer, commands—"Fix bayonets!—Shoulder!"

When the colours are brought on the parade, the drum is beat; and the drummer's call on the right.

The captain will face inwards, and the lieutenant and ensign will face to the right, and march, quick time, to the head of the grenadiers. The captain goes to the head of the right of his remaining men. The field officer then orders the grenadiers to close their ranks, and to march off in quick time, the lieutenant being three paces advanced in front of his men, and the ensign one. The colours are received as usual. And the colours on their arrival on the left flank of the guards, will file at the slow time, through the ranks: the lieutenant, and the colors, in front of the front rank. The guards are to march off at the slow time, and by divisions, taking care, that when they open their ranks, the front rank of each keeps its exact distance from the front rank preceding it. When there are one officers than one belonging to the same guard, the second in rank is to take post, and to march past the commanding officer, in the parade, at the head of the last division, instead of being in the rear of it. When there is an officer, senior to the field officer of the day, on the parade, the guards are to march by and salute him: the field officer of the day, in that case, marching at their head.

Guard rooms. The following articles should properly come under the heads of furniture and utensils.

Cavalry and infantry Guard rooms are allowed a ware, bucket, candlestick, tin can for drink, and drinking cups; they are also a load of fire-wood, and coal tray.

The rooms of the quarter-masters and serjeants of cavalry, and the serjeants major and quarter-master serjeants of infantry, to be furnished with the necessary bedding and utensils in the same manner as is allowed to the soldiers' rooms.

Guard, in fencing, implies a posture proper to defend the body from the sword of the antagonist.

The word guard is seldom applied among small swarmsmen to any posture but those of care and fence. The other motions of defence are stiled parades. See FENCING.

Guards of the broad sword. The postures of a fence adopted with that weapon are generally termed guards, and may be comprised under the inside guard, half-circle guard, hunting guard, half-hating guard, medium guard, outside guard, St. Geo'r's guard, and saptoon guard. Sc. BROAD SWORD.

Prepare for Guard, in the cavalry sword exercise, is performed by taking the extremity of the sword butt up to the bit of the stomach, with the back of the hand outwards; the blade of the sword to be carried perpendicularly, with the flat in front of the left eye. From this position the guard is taken by darting the sword hand smartly forward towards the left ear of the antagonist.

Guard, in the cavalry sword exercise, is used to denote one particular position, which consists in holding the blade nearly horizontal across the face, the point rather higher than the hill, the sword-hand directed towards the left ear of the antagonist.
GUERITE, Fr. Centry box, small turret. In fortified towns there are several small turrets of this denomination, which are sometimes made of wood and sometimes built with stone. They are generally fixed on the acute points of bastions and caneliers are posted within them, for the purpose of watching the ditch, and of preventing any surprise in that quarter.

Those upon the continent of Europe, particularly in France, contain from 3 to 4 French feet diameter within, and are 7 or 8 feet high. Their general shape or figure is pentagonal, hexagonal, &c.

There are apertures made on every side, through which the sentinel can observe everything that passes in the ditch. A path about 2 or 3 feet broad is cut through the parapet and the banquette, up to the entrance of the guerite. Wooden guerites are generally used when the rampart is lined with turf only.

The spots best adapted for guerites, are at the flanked angles of bastions, and at the angles of equaliments. Sometimes indeed, they are placed in the centre of the curtains. They must jut out at the point of the angle, and the ground floor should be upon a line with the cordon, which is a sort of fillet or trace that marks the separation of the rampart from the parapet. They must likewise project far enough to afford the sentinel who is within, a full view of the faces, the flanks and the curtains, and, if possible, a thorough command of all the ditch.

Gagner la Guerite, Fr. A familiar phrase to express the escape of a person. Engferter die Guerite, Fr. To avoid the pursuit of another.

Guerre, Fr. War which see.

The word guerre is indeed so frequently used among the French, that we shall not be thought too minute in specifying some general terms under that head. The principal ones are,

Guerre civile, Fr. See Civil War.

Guerre, Fr. A war name, a borrowed name; it was formerly commonly assumed by a man of guerre on entering the French army.

Petite Guerre; Fr. a harassing species of warfare. A contest in which neighboring princes or countries embark to defend themselves or the common interest with whom they are in alliance, against the aggression or exorbitant demands of a conqueror.

Place de Guerre, Fr. A fortified town or place.

Faire la Guerre à l'air, in a figurative sense, signifies to watch stealthily, and without taking off the eye from a particular object.

A la guerre comme à la Guerre. A familiar expression among the French, which implies, that things must be taken as they come.

On ne fait la Guerre que pour faire enfin la paix. War, after all, must end in peace.

La guerre nourrit la Guerre, figuratively means, that an army always subsists at the expense of the country in which it lies.

Guerre de guerre, Fr. war of alliance or confederacy. This term is more especially applicable to that species of contest in which neighboring princes or countries embark to defend themselves or the common interest with whom they are in alliance, against the aggression or exorbitant demands of a conqueror.

If such a contest or war be entered into upon the faith of settled treaties, the parties are bound not only to supply the stipulated number of soldiers, but even to augment their quota, if necessity should require, and sometimes to march in person against the common enemy.

If the object be to prevent any adjacent country from falling into the hands of a conqueror, who might afterwards molest the contracting party, the latter should observe many precautions before he withdraws from the contest; the principal one is to demand the possession of some strong places upon the frontier, to prevent the inhabitants of the country that is attacked from making a separate peace.

The general selected to command an auxiliary army must be endowed with wisdom and foresight. He must be wise and intelligent in order to preserve discipline and good order among his troops; and have foresight to provide for the wants of his army in a strange country, and to see that the men are not sent more into action than they ought, and that nothing is done contrary to the interest of his country.

Guerre de montagne, Fr. a war which is chiefly carried on in a mountainous part of the country. This species of warfare is extremely hazardous, as it cannot be pursued without a thorough knowledge of the country, and by means of able strategems. Marshal Saxe, in his Reveries, lays it down as a rule, that no army detachment must venture into passes or narrow ways, without having first secured the eminences round them; and if the enemy should defend the passes or routs, false attacks must be resorted to, in order to divert his attention from a real one which is made against a weak quarter. It frequently happens that by-ways are neglected.

GUDDA, an Indian term for a fool, metaphorically a fool.

Tally employed in the Turkish armies, to form the formation of a camp, or for any part of the army in a strange country from falling into the hands of a conqueror, who might afterwards molest the contracting party, the latter should observe many precautions before he withdraws from the contest; the principal one is to demand the possession of some strong places upon the frontier, to prevent the inhabitants of the country that is attacked from making a separate peace.

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found out, which have escaped the enemy's observation, and through which detached bodies may penetrate for the purpose of turning his flanks. In a guerre de montagne, or mountain-contest, it is entirely necessary, that the advancing body should keep up a regular and safe communication with its rear, as well to secure a retreat if necessary, as to have a free intercourse with its convoys. See AM. MIL. LIT.

GUERRE de citadins, Fr. See War of citadins or stragagers.

GUERRE sainte, Fr. a romantic expedition which was made by the Christians, against the Infidels in Palestine, for the purpose of re-conquering the Holy Land, from whence it was called holy war, or guerre sainte. See CRUSADE.

Pouvoir de GUERRE, a figurative expression among the French, to mark the character of a man who has distinguished himself in battle, and is acknowledged to possess a superior degree of valor.

Flamme de la GUERRE, Fr. the torch of war. Any person who causes war to be carried on with violence and audacity is called

Ailler à la petite GUERRE, Fr. to go out in detached parties for the direct purpose of plundering an enemy's country.

Faire bonne GUERRE, Fr. to carry on hostilities with as much humanity as the laws of war will permit.

Faire bonne GUERRE, à quelqu'un, Fr. to treat with a man decently, but vigorously, on matters that require explanation and final arrangement.

GUERRE et paix ne s'accordent pas ensemble, Fr. a French proverb, signifying war and commiseration seldom go hand in hand.

GUERRE juste, Fr. a just and necessary war, that is a war of defence, such as the war of resistance against the British, from 1775 to 1783, the war of the French against the first coalition, in 1792.

GUERRE injuste, Fr. an unjust war.

Longue GUERRE, Fr. a long war.

Guerré étrangère, Fr. a foreign war.

GUERRE d'outre mer, Fr. a war beyond the seas.

GUERS, Fr. See GENS.

Gens de GUERRE, Fr. the profession of arms. Hence it is figuratively said, les Francs sont au fait du métier de la guerre de terre, et les Anglais sont au fait du métier de la guerre de mer. Frenchmen are at the top of the profession of arms on land, and Englishmen are unrivalled at sea.

Les lois de la GUERRE, Fr. the laws of war.

Le droit de la GUERRE, Fr. the rights of war.

Ruer de GUERRE, Fr. a warlike strag- eman.

En temps de GUERRE, Fr. in time of war.

Missions de la GUERRE et de bouché, Fr. warlike stores, and provisions.

Préparatifs de GUERRE, Fr. warlike preparations.

Place de GUERRE, Fr. a fortified place.

Machine de GUERRE, Fr. a warlike instrument or machine.

Conseil de GUERRE, Fr. a council of war. It likewise means a court martial.

Vaisseau de GUERRE, Fr. a ship of war.

Vaisseau armé en GUERRE, Fr. an armed vessel.

C'est un grand homme de GUERRE, Fr. he is a warlike character.

Les malheurs de la GUERRE, Fr. the misfortunes of war.

Avoir GUERRE, Fr. to commence hostilities.

Avoir la GUERRE, Fr. to be in a state of warfare.

Les fruits de la GUERRE, Fr. the fruits, or consequences of war.

Entreprendre la GUERRE, Fr. to enter into a war.

Découvrir la GUERRE, Fr. to declare war.

Souvenir la GUERRE, Fr. to maintain the war.

Entretenir la GUERRE, Fr. to support the war.

Ces deux princes sont en GUERRE, Fr. these two potentates are at war.

Etre en GUERRE amitié, Fr. to be at open war.

Se faire la GUERRE, Fr. to make war with one another.

Ailler à la GUERRE, Fr. to go to war.

Allumer la GUERRE dans un état, Fr. to light up a war, or excite troubles in any state or country.

Porter la GUERRE dans le cœur d'un pays, Fr. to carry war into the heart of a country.

GUERRE entre les puissances égales, Fr. war between two powers which are nearly equal in point of strength, and do not act with auxiliary troops.

Qui terre a GUERRE au, Fr. a French proverb, signifying, every man who has landed property is exposed to lands and litigation.

GUERRIER, Fr. Warrior.

Un grand GUERRIER, Fr. a great warrior.

Les plus fameux GUERRIERS, the most celebrated warriors.

It is also used as a substantive in the feminine gender, when speaking of an amazon; as, la vaillante guerrière.

GUERRIÈRE, Fr. an adjective is variously used, viz. warlike, any thing pertaining to war.

Actions GUERRIÈRES, Fr. warlike actions.

Travaux GUERRIÈRES, Fr. works of a military or warlike nature.

Exploits GUERRIÈRES, Fr. warlike exploits.

Courage GUERRIÈRE, Fr. a warlike disposition.

Humeur GUERRIÈRE, Fr. a warlike spirit or temper.

Nature GUERRIÈRE, Fr. a warlike action.
Il y a laissé ses Guetteurs, Fr. a figurative expression among French soldiers, signifying that a person died in such a place.

Guetteur, Fr. to put on gaiters.

Guette, Fr. a name given by the French carpenters to a stake that is fixed sideways and which serves for various purposes.

Guetter, Fr. a familiar phrase, signifying to watch the motions of any body, for the purpose of circumvention or surprise.

Guet likewise means to watch for a fit opportunity to get access to any person.

Il y a des sergents qui le Guettent, Fr. he is closely watched by some sergeants.

Le soldat Guettant son colonel pour lui presenter un plomb, Fr. the soldier watched his colonel, in order to lay his petition before him.

Guéuse, Fr. a rough piece of iron, which has been melted, and has not gone through any further process or purification.

Guichet, Fr. a small door or outlet, which is made in the gates of fortified towns. It is generally four feet high, and two broad; so that a man must stoop to get through. In 1669, the high town of the city of Albuquerque, in Spain, escaped being surprized by means of one of these outlets. In garrison towns, the guichet is left open for the space of one quarter of an hour after the retreat, in order to give the inhabitants time to enter.

Guichet d’une porte d’entrée, an opening which is made in the gate of a sluice, and which closes by means of a fixed gate. It serves to let in water when wanted.

Guides, (guides, Fr.) are generally the country people in the neighborhood where an army encamps: they are to give you intelligence concerning the country, the roads by which you are to march, and the route by which the enemy may approach you. Guides should be useful, because, in giving you false intelligence, or guiding you wrong, they may greatly endanger the army. Several guides are requisite, as every corps that marches by night should have one at least. There is sometimes a captain, or chief of the guides, who should be a man of intelligence, active, and attentive to the difference and fidelity of his people. He should always have a sufficient number with him, and who are well acquainted with the country.

In times of war, particularly in the seat of it, the guides invariably accompany head-quarters, and a certain number is allotted not only to general officers, but to all detachments made from the main body, either for the purpose of combating the advanced posts of an enemy, of protecting escorts, or securing convoys. Guides, in an army, may be justly called
its principal outsets. They are to a body of men what the eyes are to the human frame. They cannot, however, be too jealously watched.

Guns, the name given to the new commissioned officers who take positions to mark the posts, attack, form, and advance in modern discipline; it is expressed in French by the word jalarer, from jalon a post. See Jalon.

Guides of manœuvre, the name given to those which the French call jalarer, and the British markers. The use of guides is perhaps one of the best conceived and ingenious methods which could be devised to perfect the art of manœuvring troops and one of its happiest discoveries: how to use raw or undisciplined troops, which by the aid of guides of manoeuvre may be brought to compose and execute every species of movement in company, platoons, divisions, or battalions, in one third of the time formerly required; and in a manner much more perfect than was formerly considered as the utmost excellence. See Am. Mil. Lib.

Guides, corps de, under the new French dynasty have a new organization of which we hear only by some decisive effects.

Corps des Guides, Fr. The corps of guides. This body was originally formed in France in the year 1776, and consisted of one captain, one 1st lieutenant, one 2d lieutenant, two serjeants, two corporals, one ansadde, and twenty privates, called fusiliers-guides. — Twelve out of the twenty-five (which was the effective number) were mounted. These consisted of one serjeant, one corporal, and ten fusiliers. Their particular duty was to carry orders that required dispatch; and on this account they were always attached to head-quarters. The twelve fusiliers were mounted on small active horses, about four French feet, five or six inches high. They were supplied with a saddle, blue saddle-cloth trimmed with white, holster-caps the same; and they were armed with a fusil and cut-and-thrust bayonet, a pistol, saber, with a cartouch-box, containing 30 rounds. They wore half-boots, or bottines. Each man carried, moreover, one field utensil out of the twelve belonging to the company. These utensils consisted of four hatchets, four shovels, and four pick-axes. The thirteen fusiliers-guides on foot were armed with a fusil six inches shorter than the regular muskets, with a blade-bayonet and a cartouch-box, holding twenty rounds of ball cartridges. Their uniform was a blue coat, waistcoat, and breeches, with flat white metal buttons. The hat was black, with common white lace for the soldiers, and of a superior quality for the serjeants; which latter had three silver ornaments hanging from each shoulder. The corporals had three made of white worsted, and the ansadde two ditto. The daily pay of the captain was 4 livres, or £s. 6d, the 1st lieutenant 1 livre, 7 sols, and 6 deniers, equal to £s. 4d. the 2d lieutenant 1 livre, or 12d. each serjeant 13 sols, or 8d. each corporal 30 sols, or 6d. each ansadde 8 sols, 6 deniers, or 4 1-2d. each private 6 sols, 6 deniers, or 3 1-2d. See Sight.

Guidon, in ancient military history, the name of a sort of standard used at one extreme and almost pointed at the other, and split or divided into two. Guidon also implies the officer who carries the guidon or standard.

Guidons, in the French service, were exclusively attached to the Gendarmerie; and amongst the word guidon, as not only the standard but likewise the officer who carried it, Guidon also implies the officer who carries the guidon or standard.

Guignes, Fr. A tool somewhat like a plane which is used by carpenters, and of which there are several sorts according to the nature of the work.

Guignes, Fr. All machines which by means of a wheel and its axis serve to raise heavy loads, are so called by the French.

Guinder, Fr. To draw up any weight.

Guisarmiers, Fr. A body of free archers, or bowmen, who took their name from an offensive weapon called guisarme, or injarme, somewhat similar to the swinge, a sort of javelin, which was used in hunting the wild boar. Its length was equal to that of the hawker, and it had a broad piece of sharp iron fixed to one end.

Gully. Any hollow which has been made by running water. Ambuscades are frequently laid in such places.

Gun, a fire arm, or weapon of offence, which forcibly discharges a bullet through a cylindrical barrel by means of gunpowder. The term is chiefly applied to cannon.

Somerset derives gun from the Greek, a warlike machine, which was used before the invention of guns. He establishes his derivation by taking away the first syllable.

Carriage Guns are small pieces of ordnance, mounted upon carriages of two wheels, and drawn by two horses. The artillery-man is seated on a box, and the whole can be moved forward into action with astonishing rapidity. The tambrils belonging to carriage guns carry 60 rounds of ball cartridges. Great improvements are daily making in this machine on account of its acknowledging d utility.

Great Gun. See Cannon. Evening Gun § 2 generally 2 6 or Morning Gun § 12-pounder, which is fired every night about sun-set, and
every morning at sun-rise, to give notice to the drums and trumpets of the army, to convene and sound the retreat and the reveille.

Morning and evening, and other signal guns, by the United States regulations, are not to be fired from larger calibres than 6 or 12 pounders; which calibres are seldom mounted on permanent works.

Gun-fire. The time at which the morning or evening gun is fired.

Gun-boat, a boat which is generally used to form a kind of floating battery, to cover the landing of troops.

GUNNEL, or the lower part of any gun-vessel where ordnance is planted. It likewise means that beam in a pontoon which supports the main waste.

GUNNER, in the artillery, is the title of the first and second artist at a gun in battery; all the rest are called aids.

GUNNERY, the art of determining the motions of bodies shot from cannon, mortars, howitzers, &c. See the article Artillery.

The late ingenious Mr. Robins, having concluded from experiments, that the force of fired gunpowder, at the instant of its explosion, is the same with that of an elastic fluid of a thousand times the density of common air, and that the elasticity of this fluid, like that of the air, is proportional to its density, proposes the following problem.

The dimensions of any piece of artillery, the weight of its ball, and the quantity of its charge being given, to determine the velocity which the shot will acquire from the explosion, supposing the elasticity or force of the powder at the first instant of its firing to be given.

In the solution of this important problem, he assumes the two following principles: 1. That the action of the powder on the shot ceases as soon as it is got out of the piece. 2. That all the powder of the charge is fired, and converted into an elastic fluid, before the shot is sensibly moved from its place.

These assumptions, and the conclusions above mentioned, make the action of fired gunpowder to be entirely similar to that of air confined a thousand times; and from thence it will not be difficult to determine the velocity of the shot arising from the explosion; for the force of the fired powder diminishing in proportion to its expansion, and ceasing when it is got out of the piece; the total action of the powder may be represented by the area of a curve, the base of which represents the space through which the ball is accelerated, while the ordinates represent the force of the powder at every point of that space; and these ordinates being in reciprocal proportion to their distance from the breech of the gun, because when the spaces occupied by the fired powder are as 1, 2, 3, &c. the ordinates representing it will be as 1, 1-half, 1-third, 1-fourth, &c.

It appears that the curve will be a con-

mon parabola, and that the area intercept-

ded between is an asymptote; and that the two ordinates representing the force of the powder at the first explosion, and at the muzzle of the piece, will represent the total action of the powder; but if the shot were urged through the same space by an uniform force equal to its gravity, the total action of this force would be represented by a rectangle, the base of which would be the base of the curve or intercepted portion of the asymptote above mentioned, and the height of which would represent the uniform force of gravity. Hence the square of the velocity of the shot resulting from gravity is given, being the velocity it would acquire from a height equal to the space through which the powder accelerates it; and the proportion between the hyperbola and the rectangle is given from the analogy between the hyperbolic places and logarithms; therefore the velocity of the ball arising from the action of the fired gunpowder will be given.

Mr. Robins has also given us an ingenious way of determining, by experiments, the velocity with which any shot moves at any distance of the piece it is discharged from. This may be effected by means of a pendulum made of iron, having a broad part at bottom, covered with a thick piece of wood, which is fastened to the iron by screws; then having a machine like a common artillery-gun, on two of its poles, towards their tops, screwed sockets, on which the pendulum is hung by means of a cross piece, which becomes its axis of suspension, and on which it should vibrate with great freedom. Somewhat lower than the bottom of the pendulum there should be a brace, joining to which the pendulum is suspended; and to this brace there is fastened a contrivance made with two edges of steel, something in the manner of a drawing-pen; the strength with which these edges press on each other, being diminished or increased at pleasure, by means of a screw. To the bottom of the pendulum should be fastened a narrow ribbon, which, passing between the steel edges, may hang closely down by means of an opening cut in the lower piece of steel.

The instrument being thus fitted, if the weight of the pendulum, the respective distances of its centre of gravity, and of its centre of oscillation from the axis of suspension, be known, it may from thence be found what motion will be communicated to this pendulum by the percussion of a body of a known weight, moving with a known degree of velocity, and striking it into a given point; that is, if the pendulum be supposed to rest before the percussion, it will be known what vibration it should make in consequence of such a blow; and if the pendulum, being at rest, is struck by a body of a known weight, and the vibration which the pen-
tixing a pin in the part of the riband con
of the bill, will draw out the riband to
from slipping itself; then setting the pen
rest, and they are not separated after the
of the shot is determined from the vibra-

dulum at rest, let the part of the riband
the just extent of its vibration, which will
between the pendulum and the steel edges
be determined by the interval on the
stroke, but move on with one common
swinging back by means of the impulse
edges on the riband be regulated by the

founded on the principle of mechanics; equal motion, and describes equal spaces
that if a body in motion strikes another
motion, then that common motion is equal
to the motion with which the first body
before the stroke is thence determined,
the proportion between the lengths of the
riband between the edges and the space of
the pin.

The computation by which the velocity
of the shot is determined from the vibra-
tion of the pendulum, after the stroke, is
founded on the principle of mechanics;
that if a body in motion strikes another
at rest, and they are not separated after
the stroke, but move on with one common
motion, then that common motion is equal
to the motion with which the first body
moved before the stroke; whence, if that
common motion and the masses of the
two bodies are known, the motion of the
first body before the stroke is thence de-
termined. On this principle it follows,
that the velocity of a shot may be dimin-
ished in any given ratio, by its being
raised to impinge on a body of weight pro-
perly proportioned to it.

It is to be observed, that the length to
which the riband is drawn, is always near
the chord of the arc described by the as-
cent; it being so placed, as to differ is-
sensibly from those chords which must
frequently occur; and these chords are
known to be in the proportion of the ve-
locities of the pendulum acquired from
the stroke. Hence it follows, that the propor-
tion between the lengths of the riband,
drawn out at different times, will be the
same with that of the velocities of the
impinging shots.

Now from the computations delivered
by Mr. Robins, it appears, that the ve-
locity of the bullet was 164 feet in one
second of time, when the chord of the arc
acquired by the ascent of the pendulum,
in consequence of the blow, was 17.1-4
inches, the proportion of the velocity with
which the bullets impinge, to the known
velocity of 164 feet in one second, will
be determined.

Mr. Robins was (till of late) the only
author who attempted to ascertain
the velocity of a military projectile by
experiment; yet his conclusions seem to
be unsatisfactory. Perhaps he was too
much attached to the forming of a sys-
tem, and warped his experiments a little
in favor of it. The resisting power he
assigns to the air is probably too great;
and his notion of the tripling of this
power when the velocity of the projectile
exceeds that of sound, sec ms to be rather
an ingenious theory than a well-ground-
ed fact. However, experiment alone
must decide these points.

The great importance of the art of gun-
ner is the reason that we distinguish it
from the doctrine of projectiles in gen-
eral, or of such only as belong to gun-
nery; for, from the moment the force is
impressed, all distinction, with regard to
the power which put the body first in
motion by the explosion of guns, or
other engines of that sort; and it matters
not whether we talk of projectiles in gen-
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nery; for, from the moment the force is
impressed, all distinction, with regard to
the power which put the body first in
motion by the explosion of guns, or
other engines of that sort; and it matters
not whether we talk of projectiles in gen-
ergrowing. If either of these for-
ces were destroyed, the body would move
according to the direction of the other
alone, so far as its motion was not hin-
dered by the interposition of other bodies;
but as both continue to act, the course of
the projectile must be determined by a
power compounded of those two forces.

Gun is also the province of the
artilierist, and comprehends, in a nautic
sense, the perfect knowledge of the power
of the machine, and the proportions of
powder to be employed in order to pro-
duce any required effect. It also com-
prehends a knowledge of the properties and
composition of gunpowder, and the va-
tious kinds of shot, which are employed
in the practice of gunnery; the metal best
adapted to make guns, the proper weight
and corresponding proportions between
the calibre of the gun and the shot fired
from it, and also the dimensions fitted for
the various services in which gunnery is em-
ployed: for batteries of permanent works,
for ships, for field service, and the light
or flying artillery. Gunner indeed com-
prehends all the duties of the able arti-
lierist and bombardier.

Gunner. By the assistance of
good tables of practice, and the tables of
amplitudes, sines, tangents, and secants,
all the cases in gunnery in a nonresis-
ting medium may be easily solved; and per-
hap the solution may be sufficiently correct
for practice, if the initial velocity of the
projectile be not so great as to make the
air's resistance considerable.

For the tables of ranges of ordnance,
see the different authors, as Caram., Mon-
ter, &c. and for the tables of amplitudes,
Upon Horizontal Planes.

1. The greatest range is at 45° nearly. The ranges with different elevations with the same charge, are as the double sines of the angles of elevation.

2. Any angle and its complement give the same range nearly.

3. The times of flight are as the sines of the angles of elevation.

4. The time of flight at 45° is equal to the square root of the range in feet, divided by 4, or more nearly as the quotient of the range in feet, divided by 16.1, or the space passed through in the first second by gravity.

Having the first glance with a given elevation and charge, to determine the charge for any other first glance and elevation, multiply the known charge and elevation into the proposed first glance; also the proposed elevation into the known first glance, and divide the first product by the last, for the charge required.

Case 1st. Given the charge and inclination of the plane, to find the range.

Multiply the horizontal range with the tangent of angle of deviation: this given charge, (found in the tables of amplitudes, under the head Ascents, or Descents, if below the horizon, for the range required.)

There are always two elevations with which any range, less than the greatest, may be made; and these elevations are always the complements of each other.

The greatest range upon a horizontal plane is at 45°; or when the direction bisects the angle formed by the horizontal and vertical plane; also the greatest range upon any plane is made with that direction which bisects the angle between the plane and the zenith; and all other directions which make equal angles with this direction, (on each side of it) will also make equal ranges on the said plane; for the direction that bisects the angle between any plane and the zenith is the same with respect to that plane as the direction at 45° is with respect to the plane of the horizon.

Rules.—1st. The elevation which gives the greatest range on a given ascent is equal to half the sum of 90° added to the ascent.

2d. The elevation which gives equal ranges on a given ascent, are the complements of each other added to the ascent.

3d. The elevation which gives the greatest range on a descent, is equal to half the complement of the descent.

If the range and inclination be given, the least charge that will reach the object, may be found as follows: multiply the tangent of the proper elevation into the proposed range, for the horizontal range whose charge is required.

Table of Amplitudes.

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</table>

Upon inclined planes, at any elevation of the plane, to find the range.

There are always two elevations with which any range, less than the greatest, may be made; and these elevations are always the complements of each other.

The greatest range upon a horizontal plane is at 45°; or when the direction bisects the angle formed by the horizontal and vertical plane; also the greatest range upon any plane is made with that direction which bisects the angle between the plane and the zenith; and all other directions which make equal angles with this direction, (on each side of it) will also make equal ranges on the said plane; for the direction that bisects the angle between any plane and the zenith is the same with respect to that plane as the direction at 45° is with respect to the plane of the horizon.

Rules.—1st. The elevation which gives the greatest range on a given ascent is equal to half the sum of 90° added to the ascent.

2d. The elevation which gives equal ranges on a given ascent, are the complements of each other added to the ascent.

3d. The elevation which gives the greatest range on a descent, is equal to half the complement of the descent.

If the range and inclination be given, the least charge that will reach the object, may be found as follows: multiply the tangent of the proper elevation into the proposed range, for the horizontal range whose charge is required.
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<td>0.610</td>
<td>1.072</td>
</tr>
<tr>
<td>39</td>
<td>0.624</td>
<td>0.626</td>
<td>1.074</td>
</tr>
<tr>
<td>40</td>
<td>0.640</td>
<td>0.642</td>
<td>1.076</td>
</tr>
<tr>
<td>41</td>
<td>0.656</td>
<td>0.658</td>
<td>1.078</td>
</tr>
<tr>
<td>42</td>
<td>0.672</td>
<td>0.674</td>
<td>1.080</td>
</tr>
<tr>
<td>43</td>
<td>0.688</td>
<td>0.690</td>
<td>1.082</td>
</tr>
<tr>
<td>44</td>
<td>0.704</td>
<td>0.706</td>
<td>1.084</td>
</tr>
<tr>
<td>45</td>
<td>0.720</td>
<td>0.722</td>
<td>1.086</td>
</tr>
<tr>
<td>46</td>
<td>0.736</td>
<td>0.738</td>
<td>1.088</td>
</tr>
<tr>
<td>47</td>
<td>0.752</td>
<td>0.754</td>
<td>1.090</td>
</tr>
<tr>
<td>48</td>
<td>0.768</td>
<td>0.770</td>
<td>1.092</td>
</tr>
<tr>
<td>49</td>
<td>0.784</td>
<td>0.786</td>
<td>1.094</td>
</tr>
<tr>
<td>50</td>
<td>0.800</td>
<td>0.802</td>
<td>1.096</td>
</tr>
<tr>
<td>51</td>
<td>0.816</td>
<td>0.818</td>
<td>1.098</td>
</tr>
<tr>
<td>52</td>
<td>0.832</td>
<td>0.834</td>
<td>1.100</td>
</tr>
<tr>
<td>53</td>
<td>0.848</td>
<td>0.850</td>
<td>1.102</td>
</tr>
<tr>
<td>54</td>
<td>0.864</td>
<td>0.866</td>
<td>1.104</td>
</tr>
<tr>
<td>55</td>
<td>0.880</td>
<td>0.882</td>
<td>1.106</td>
</tr>
<tr>
<td>56</td>
<td>0.896</td>
<td>0.898</td>
<td>1.108</td>
</tr>
<tr>
<td>57</td>
<td>0.912</td>
<td>0.914</td>
<td>1.110</td>
</tr>
<tr>
<td>58</td>
<td>0.928</td>
<td>0.930</td>
<td>1.112</td>
</tr>
<tr>
<td>59</td>
<td>0.944</td>
<td>0.946</td>
<td>1.114</td>
</tr>
<tr>
<td>60</td>
<td>0.960</td>
<td>0.962</td>
<td>1.116</td>
</tr>
<tr>
<td>61</td>
<td>0.976</td>
<td>0.978</td>
<td>1.118</td>
</tr>
<tr>
<td>62</td>
<td>0.992</td>
<td>0.994</td>
<td>1.120</td>
</tr>
</tbody>
</table>

Guns.—Calibers of European Guns, expressed in inches.
Length and weight of English Brass guns, in their old weights and measures.  

<table>
<thead>
<tr>
<th>Kind</th>
<th>Length in Feet</th>
<th>Weight in lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>3&quot;</td>
<td>9.11</td>
<td>56.18</td>
</tr>
<tr>
<td>3.5&quot;</td>
<td>9.97</td>
<td>41.11</td>
</tr>
<tr>
<td>4&quot;</td>
<td>10.86</td>
<td>23.18</td>
</tr>
<tr>
<td>5&quot;</td>
<td>11.74</td>
<td>11.50</td>
</tr>
<tr>
<td>6&quot;</td>
<td>12.62</td>
<td>9.00</td>
</tr>
<tr>
<td>8&quot;</td>
<td>13.49</td>
<td>6.00</td>
</tr>
<tr>
<td>10&quot;</td>
<td>14.37</td>
<td>4.00</td>
</tr>
<tr>
<td>12&quot;</td>
<td>15.25</td>
<td>3.00</td>
</tr>
</tbody>
</table>

The guns marked (*) are the only ones used by the British since 1795, on general service.

Length and weight of English iron guns, in English weights, &c.

<table>
<thead>
<tr>
<th>Kind</th>
<th>Length in Feet</th>
<th>Weight in lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Pounds</td>
<td>17.06</td>
<td>170</td>
</tr>
<tr>
<td>25 Pounds</td>
<td>18.23</td>
<td>153</td>
</tr>
<tr>
<td>20 Pounds</td>
<td>19.40</td>
<td>129</td>
</tr>
<tr>
<td>15 Pounds</td>
<td>20.57</td>
<td>103</td>
</tr>
<tr>
<td>10 Pounds</td>
<td>21.74</td>
<td>72</td>
</tr>
<tr>
<td>5 Pounds</td>
<td>22.91</td>
<td>32</td>
</tr>
</tbody>
</table>

French iron guns, in English weights, &c.

<table>
<thead>
<tr>
<th>Kind</th>
<th>Length in Feet</th>
<th>Weight in lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 Pounds</td>
<td>21.54</td>
<td>1793</td>
</tr>
<tr>
<td>24 Pounds</td>
<td>22.69</td>
<td>1418</td>
</tr>
<tr>
<td>18 Pounds</td>
<td>23.84</td>
<td>1018</td>
</tr>
<tr>
<td>16 Pounds</td>
<td>25.00</td>
<td>769</td>
</tr>
<tr>
<td>12 Pounds</td>
<td>26.15</td>
<td>473</td>
</tr>
<tr>
<td>8 Pounds</td>
<td>27.31</td>
<td>305</td>
</tr>
</tbody>
</table>

The French weights and measures have assumed new names, and are reduced to strict proportions since the revolution. The weights here refer to are the old. For the new French system of weights and measures, see the word Weights.

Ranges of brass guns, with one shot. 1793.

<table>
<thead>
<tr>
<th>Kind</th>
<th>To the first grade of the shot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>24.97</td>
</tr>
<tr>
<td>Medium Light</td>
<td>24.97</td>
</tr>
<tr>
<td>Light</td>
<td>24.97</td>
</tr>
<tr>
<td>Desaguiler's</td>
<td>24.97</td>
</tr>
<tr>
<td>Medium, new</td>
<td>24.97</td>
</tr>
<tr>
<td>Light</td>
<td>24.97</td>
</tr>
<tr>
<td>Do. new</td>
<td>24.97</td>
</tr>
</tbody>
</table>

* This column expresses the number of English pounds of metal in the guns, to each pound in the shot.
Effects of case shot from a battalion gun.

*Light 6 Pr. length 5 feet—Weight 5 lbs.*

<table>
<thead>
<tr>
<th>Distance of shot (yds)</th>
<th>Kind of charge</th>
<th>Elevation</th>
<th>No. per shot</th>
<th>No. per minute</th>
<th>No. per second</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>12 balls, 92 oz each, 5 in.</td>
<td>1 3/4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>gun, 11 lb.</td>
<td>1 3/4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>400</td>
<td>same charge</td>
<td>2 1/2</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>300</td>
<td>same charge</td>
<td>3 1/2</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>200</td>
<td>same charge</td>
<td>4 1/2</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>100</td>
<td>same charge</td>
<td>5 1/2</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

N.B. There were three rounds fired at each range, but they were all so nearly alike, that it has been thought necessary to put down only one of them. 1802.

Ranges with sea service from guns. 1793.

<table>
<thead>
<tr>
<th>Kind of Guns, 32, 24, and 18 Pounders.</th>
<th>Proportion of powder</th>
<th>Kind of shot</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevation of gun</td>
<td></td>
<td></td>
<td>Yards</td>
</tr>
<tr>
<td>deg.</td>
<td>With single shot to the first grade</td>
<td></td>
<td>1300</td>
</tr>
<tr>
<td>1-2</td>
<td>Do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>8 shot, ranged together to</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>3</td>
<td>Single shot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>Do.</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>4</td>
<td>Do.</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>5</td>
<td>Do.</td>
<td></td>
<td>1500</td>
</tr>
<tr>
<td>6</td>
<td>Do.</td>
<td></td>
<td>1500</td>
</tr>
<tr>
<td>7</td>
<td>1 round shot and 1/10 lb. of grape range with effect together, to</td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>8</td>
<td>One round of grape shot, alone, to</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>9</td>
<td>One double head, or bar shot will range to the first grade</td>
<td></td>
<td>500</td>
</tr>
</tbody>
</table>

N.B. The above was at a Pr. Medium and 24 Pr. Douglases. The
Ranged with 3-1/4 inch shells, from 8 Pr. iron
Gun, Length of Gun 9 ft. Wt. 90 lb. 1200.

<table>
<thead>
<tr>
<th>Weight</th>
<th>Range (yards)</th>
<th>Flight (sec.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 lbs.</td>
<td>8 lbs.</td>
<td>16 lbs.</td>
</tr>
<tr>
<td>120</td>
<td>90</td>
<td>60</td>
</tr>
<tr>
<td>100</td>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>80</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>60</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>40</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>15</td>
</tr>
</tbody>
</table>

Ranged with French brass field guns, with round shot.

<table>
<thead>
<tr>
<th>Weight</th>
<th>Charge</th>
<th>Elevation, Lines of Tan. Scale, Deg. M.</th>
<th>Range (yards)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Pr.</td>
<td>4 lbs.</td>
<td>L. M. — 300</td>
<td>1 3 300</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>1 3 400</td>
<td>1 3 400</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>1 3 400</td>
<td>1 3 400</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>1 3 300</td>
<td>1 3 300</td>
</tr>
<tr>
<td></td>
<td>8 Pr.</td>
<td>L. M. — 300</td>
<td>1 3 300</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>1 3 400</td>
<td>1 3 400</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>2 3 400</td>
<td>2 3 400</td>
</tr>
<tr>
<td></td>
<td>4 Pr.</td>
<td>L. M. — 300</td>
<td>1 3 300</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>1 3 300</td>
<td>1 3 300</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>2 3 400</td>
<td>2 3 400</td>
</tr>
</tbody>
</table>

The above are in old French weights and measures.

Definition of Gunnery. 1. The impetus at any point of the curve is the perpendicular height to which a projectile could ascend, by the force it has at that point; or the perpendicular height from which a body must fall to acquire the velocity it has at that point.

2. The diameter to any point of the curve is a line drawn through that point perpendicular to the horizon.

3. The points where the diameters cut the curve are called vertexes to these diameters.

4. The axis is that diameter which cuts the curve in its highest or principal vertex, and is perpendicular to the tangent at that point or vertex.

5. The ordinates to any diameter are lines drawn parallel to the tangent at the point where that diameter cuts the curve, and intercepted between the diameter and curve.

6. The absciss is that part of the diameter which is intercepted between the ordinate and the curve.

7. The altitude of the curve is the perpendicular height of the principal vertex above the horizon.

8. The amplitude, random, or range, is the distance between the point of projection and the object aimed at.

9. The elevation of the piece is the angle its axis (produced) makes with the horizon, and the axis itself is called the direction.

10. The horizontal distance to which a mortar, elevated to a given angle, and loaded with a given quantity of powder, throws a shell of a given weight, is called the range of that mortar, with that charge and elevation.

11. The inclination of a plane is the angle it makes with the horizon either above or below.
12. The directrix is the line of motion, along which the describing line or surface is carried in the genesis of any plane or solid figure.

**Laws of motion in Gunning.**

1. Spaces equally run through with equal velocities, are to one another as the times in which they are run through, and conversely.

2. Spaces equally run through in the same or equal times, are to one another as the velocities with which they are run through, and conversely.

3. Spaces run through are in the same proportion to one another, as their times multiplied into their velocities, and conversely.

4. A body urged by two distinct forces in two different directions, will in any given time be found at the point where two lines meet that are drawn parallel to these directions, and through the points to which the body could have moved in the same time, had these forces acted separately.

5. The velocities of bodies, which by the action of gravity began to fall from the rest, are in the same proportion as the times from their beginning of their falling.

6. The spaces run through by the descent of a body which began to fall from rest, are as the square of the times, from the beginning of the fall.

7. The motion of a military projectile is in a curve.

**Gunnpowder.** A composition of nitre, sulphur, and charcoal, well mixed together and granulated, which easily takes fire, and expands with amazing force, being one of the strongest propellents known.

<table>
<thead>
<tr>
<th>Nitre</th>
<th>Sulphur</th>
<th>Charcoal</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Pounds</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**Gunpowder.** This is the known gunpowder composed of seventy-five parts by weight, or one and a half, sixteen of charcoal, and nine of sulphur, intimately blended together by long pounding in wooden mortars, with a small quantity of water. This proportion of the materials is the most effectual. But the variations of strength in different samples of gunpowder are generally occasioned by the more or less intimate division and mixture of the parts. The reason of this may be easily deduced from the consideration, that nitre does not detonate until in contact with inflammable matter; whence the whole detonation will be more speedy, the more numerous the surfaces of the contact. The cause demands, that the ingredients should be very pure, because the mixture of foreign matter not only diminishes the quantity of effective ingredients which it represents, but it seems prevents the contacts by its interposition.

The nitre of the third boiling is usually chosen for making gunpowder, and the charcoal of light woods is referred to that of those which are heavier, most probably because this last, being harder, is less vulnerable. An improvement in the method of making the charcoal has lately been adopted, which consists in putting the wood, cut into pieces about nine inches long, into an iron cylinder laid horizontally, closed at one end, and furnished with small pipes at the other, that the pyroligneous acid and carburet of hydrogen may escape, and thus exposed to the heat of a fire made underneath. It is said, this charcoal improves the strength of gunpowder so much, that only two thirds of the old charge of gunpowder for ordnance are now used in our navy.

The intimate pounding of the materials is performed in the large way by a mill, in which wooden mortars are disposed in rows, and in each of which a pestle is moved by the arbor of a water-wheel; it is necessary to moisten the mixture from time to time with water, which serves to prevent its being dissipated in the pulverulent form, and likewise obviates the danger of explosion from the heat occasioned by the blows. Twelve hours pounding is in general required to complete the mixture; and when this is done, the gunpowder is in fact made, and only requires to be dried to render it fit for use.

**Proofs of powder.** The first examination of powder in the British mills, is by rubbing it in the hands to find whether it contains any irregular hard lumps. The second is by blasting a dram of each sort on a copper plate, and in this comparing it with an approved powder; in this proof it should not emit any sparks, nor leave any beads or foulness on the copper.

It is then compared with an approved powder, in projecting an iron ball of 64 lbs. from an 8 inch mortar, with a charge of 2 ounces. The best cylinder powder generally gives about 185 feet range, and 150; but the weakest powder, or powder that has been reduced, &c. only from 107 to 117 feet.

The merchants' powder, before it is re-
received into the government service, it tried against powder of the same kind made at the royal mills; and it is received if it gives a range of 1-20 less than the king's powder with which it is compared. In this comparison both sorts are tried on the same day, at the same time, and under exactly the same circumstances.

The proof of fine grained, or musket powder, is with a charge of 4 drams from a musquet barrel, to erode a steel plate a certain number of 1.2 inches wet elm boards, placed 3.4 inches asunder, and the first 3 feet 9 inches from the barrel; the king's powder generally passes through 25 or 26, and restored powder from 9 to 12. The last trial of powder is by exposing about 1 pound of each sort, accurately weighed, to the atmosphere for 17 or 18 days; during which time, if the materials are pure, it will not increase any thing material in weight, by attracting moisture from the atmosphere.

In this experiment 50 lbs. of good gunpowder should not absorb more than 12 oz., or somewhat less than one per cent.

Different modes of trying gunpowder have been adopted. A ready one is, to lay two or three small heaps on a white piece of writing paper, and ignite one with a red hot wire. If the flame ascend quickly, it gives a range of 1-20 less than the present musquet powder, and is therefore generally used in the government service.

The white LG being a mixed powder, is not so uniform as the other, and is therefore generally used in filling shells, or for such other purposes as do not require much accuracy. All powder for service is mixed in proportions according to its strength, so as to bring it as much as possible to a mean and uniform force.

French Gunpowder. The French gunpowder is of brass, and weighs 60 lbs. French; the diameter of the mortar 7 inches 9 points, or 3.4 of a line, placed at one line of windlass. The chamber holds exactly 3 ounces, and their best powder must give a range of 90 toises, and their restored powder a range of 80 toises, to be received into the service. But the powder they now make, when new, will give a range of 100 and 120 toises; and Mr. Lombard calculates all his tables from experiments made with powder giving 125 toises with the eprouvette.

The above dimensions and weights are all of old French standard.

Invention of Gunpowder. It is usually ascribed to one Theophrastos Schwartz, a German monk, who discovered it about the year 1320; it is said to have first been used in war by the Venetians against the Genoese in the year 1338; and friar Bacon, expressly mentions the composition in his treatise De Naturæ Magia, published at Oxford in the year 1216. Some indeed are of opinion, that the Arabs or the latter Greeks were the first inventors of gunpowder, about the middle ages of our era; because their Arabic name is said to be expressive of its explosive quality.

Considerable improvements have lately been made in the composition of gunpowder by the Chinese.

Method of making Gunpowder. Take nitre, sulphur, and charcoal; reduce them to a fine powder, and continue to beat them for some time in a stone mortar with a wooden pestle, wetting the mixture occasionally with water, so as to form the whole into a uniform paste, which is afterwards reduced to grains, by passing it through a sieve; and in this form, being carefully dried, it becomes the common gunpowder. For greater quantities mills are used, by means of which more work may be performed in one day than a man can do in a hundred. See Mils.

This destructive powder is composed of 75 parts nitre, 9 sulphur, and 15 of charcoal, in the 100.

The granulation of gunpowder is performed by placing the mass, while in the

<table>
<thead>
<tr>
<th>No.</th>
<th>L G</th>
<th>F G</th>
<th>S G</th>
<th>Powder Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L G</td>
<td>F G</td>
<td>S G</td>
<td>Powder made of the cylinder charcoal, and is that which is now universally used in service.</td>
</tr>
<tr>
<td>2</td>
<td>L G</td>
<td>F G</td>
<td>S G</td>
<td>Powder entirely made of the cylinder charcoal, and is that which is now universally used in service.</td>
</tr>
<tr>
<td>3</td>
<td>L G</td>
<td>F G</td>
<td>S G</td>
<td>Powder entirely made of the cylinder charcoal, and is that which is now universally used in service.</td>
</tr>
<tr>
<td>4</td>
<td>L G</td>
<td>F G</td>
<td>S G</td>
<td>Powder entirely made of the cylinder charcoal, and is that which is now universally used in service.</td>
</tr>
<tr>
<td>5</td>
<td>L G</td>
<td>F G</td>
<td>S G</td>
<td>Powder entirely made of the cylinder charcoal, and is that which is now universally used in service.</td>
</tr>
</tbody>
</table>

French Gunpowder. The French gunpowder is of brass, and weighs 60 lbs. French; the diameter of the mortar 7 inches 9 points, or 3.4 of a line, placed at one line of windlass. The chamber holds exactly 3 ounces, and their best powder must give a range of 90 toises, and their restored powder a range of 80 toises, to be received into the service. But the powder they now make, when new, will give a range of 100 and 120 toises; and Mr. Lombard calculates all his tables from experiments made with powder giving 125 toises with the eprouvette.
How to refine nitre. Put into a copper, or any other vessel, too weight of rough nitre, with about 14 gallons of clean water, and let it boil gently for half an hour, and as it boils take off the scum; then stir it about in the copper, and before it settles put it into your filtering-bags, which must be hung on a rack, with glazed earthen pans under them, in which sticks must be laid across for the crystals to adhere to; it must stand in the pans for two or three days to be sure that none of the crystals are left, and let them dry. The water that remains in the pans boil again for an hour, and strain it into the pans as before, and the nitre will be quite clear and transparent; if not, it wants more refining. To effect which proceed as usual, till it is well cleansed of all its earthy parts.

How to pulverise nitre. Take a copper kettle, whose bottom must be spherical, and put into it 300 or 500 pounds of clean water; then put the kettle on a slow fire; and when the nitre is dissolved, if any impurities arise, skim them off, and keep constantly stirring it with a large spoon till all the water exhaled, and when done enough, it will appear like white sand, and as fine as flour; but if it should boil too fast, take the kettle off the fire, and set it on some wet sand, by which means the nitre will be prevented from sticking to the kettle. When you have pulvretized a quantity of nitre, be careful to keep it in a dry place.

Different kinds of Gunpowder. It being proper that every one who makes use of gun-powder should know of what it is composed, we shall give a brief account of its origin and use. Gunpowder, for some time after the invention of artillery, was of a composition much weaker than what we now use, or than that ancient one mentioned by Marcus Graecus: but this, it is presumed, was owing to the weakness of their first pieces, rather than to their ignorance of a better mixture: for the first pieces of artillery were of a very clumsy, inconvenient make, being usually framed of several pieces of iron bars, fitted together lengthways, and then hooped together with iron rings; and as they were first employed in throwing stone shot of a prodigious weight, in imitation of the ancient machines, to which they succeeded, they were of an enormous bore. When Mahomed I. besieged Constantinople in the year 1453, he battered the walls with stone bullets, and his pieces were some of them of the calibre of 1200 lb., but they never could be fired more than four times in the 24 hours, and sometimes they burst by the first discharge. Powder at first was not grained, but in the form of fine meal, such as it was reduced to by grinding the materials together, and it is doubtful, whether the first grain of it that was intended to increase its strength, or only to render it more convenient for the filling, it into small charges, and the loading of small arms, to which alone it was applied for many years, whilst meal-powder was still made use of in cannon. But at last the additional strength, which the grained powder was found to acquire from the free passage of the fire between the grains, occasioned the meal-powder to be entirely laid aside. The coal for making ungrained powder is either that of willow or hazel; but the lightest kind of willow is found to be the best, well charred in the usual manner, and reduced to powder. Corted powder was in use in Germany as early as the year 1568; but it was first generally used in England in the reign of Charles I. Government-powder, such powder, as Granade-powder, having undergone the customary proof, is so called, and received into the public magazines. It has been recommended by a French writer to preserve gun-powder, by means of boxes, which should be lined.
Proof of Gunpowder. First take out of the several barrels of gunpowder a measure full, of about the size of a thimble, which spread upon a sheet of fine writing paper, and then fire it, if the inflammation be very rapid, the smoke rise perpendicularly, and the paper be neither burnt nor spotted, it is then to be judged good powder.

Then 2 drams of the same powder are exactly weighed, and put into an eprouvette; which if it raises a weight of 24 pounds to the height of 3 1/2 inches, it may be received into the public magazine as proof.

GUN-Powder Prover. See EPROUVE-VETTE.

GUNSHOT, the reach or range of a gun. The space through which a shot can be thrown.

GUNSHOT-Wound. Any wound received from the discharge of cannon or firearms.

GUN-SMITH, a man who makes firearms.

GUNSTICK. The rammer or stick with which the charge is driven into the gun.

GUNSTOCK. The wood to which the barrel of the gun is fixed.

GUNSTONE. Such materials, chiefly stones, as were formerly discharged from artillery.

GUN, a house or dwelling in India.

GURRIE, mud forts made in India so called. These forts are sometimes surrounded with ditches.

GARRY, an Indian term to express a certain division of time, comprehending 24 minutes; but the word among the Europeans is generally understood to mean an hour. A watch is called a garry.

GUALIOR, a stupendous military fortification on the summit of a rocky eminence in India, south of Jumna, 38 cross, or 50 English miles, from Agra. It was once taken by a daring enterprise by Col. Popham.

COTRETTE, cantonments seven cross (14 English miles) from Calcutta. It is a palace built by Mr. Dupleix, which the British took by force in 1797, and imprisoned the principal French colonists of Chandernagore there. This was two years before the war in Europe.

GYMNASTIC, (gymnastic, fr.) pertaining to athletic exercise, such as leaping, wrestling, drawing the cross bow, springing, &c. The Greeks, among whom the art originated, were accustomed to strip whenever they performed any part of it.

H

HABERGEON, a small coat of mail, or only sleeves and gorget of mail, formed of little iron rings or meshes linked together.

HABILMENTS of war, in ancient statutes, signify armor, harness, utensils, or other provisions, without which it is supposed there can be no ability to maintain a war.

HABILEMENT des troupes, Fr. properly means the regimental clothing or the uniform of soldiers. The clothing of the French army was not reduced to any regular system before the reign of Louis the 14th. The following observations relative to this important object are too appropriate, and suit all countries too well, to be left unnoticed.

The dress of a soldier should be plain, and made up so as to facilitate every movement of his person, to guard him against the inclemency of the weather, and to be remarkable for its collective uniformity of appearance. Next to these general requisites, the ease of each individual should be consulted; particularly with regard to the breeches, trousers, or pantaloons. Regimental surgeons will certainly say, that in some instances men have suffered as much from an inattention to this part of their dress, as from the most harassing service in the face of an enemy. The loins should invariably be exposed, the side be made easy, and the bend of the knee be left unembarrassed.

Under the old French government, the whole infantry was clothed in white, with facings of various colors; but both the licentiats and the men were extremely dirty in every part of their dress. Since the revolution, the national color, which was white, has been changed to blue. Not only the soldiers, but the wagon-drivers, &c. had a particular dress to distinguish them from other people. See UNIFORM.

Un HABIT d’ordonnance, Fr. A uniform, Un HABIT d’armes, Fr. A coat, clothing.

HACHÉ, Fr. A hatchet.

HACUS d’armes, Fr. A hatchet or battle-axe.

In ancient times this weapon was frequently resorted to by whole armies when they engaged. At present it is only used on particular occasions, in sorties, &c. or boarding ships.

HACINA, Fr. A term which was formerly used among the French to express a certain punishment that military deserters were obliged to undergo. It consisted in being loaded with a pack or saddle, which the guilty person was under the necessity of carrying, a specified distance, and which entailed disgrace upon the bearer.
HALCHER, Fr. to cut to pieces. This word is very frequently used among the French in a military sense, viz. Un batteImm, on un escadron s'est fait HALCHER en pieces, a battalion, or a squad-
ton has suffered itself to be cut to pieces.

They likewise make use of the expres-
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HALCHERY, an Indian two wheel
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HALT-Pike, (demis pique, Fr.) A small pike, which was formerly carried by officers.

HALT. (French halte), is a discontinuance of the march of any body of men, armed or unarmed, under military direction. It is frequently practiced for the purpose of saving troops during their progress through a country, or to render them fresh and active previous to any war-like undertaking.

Frequent halts are made in the passage of obstacles, and in an intersected country, in order to obviate the inconvenience and danger which must attend a column whose head is advanced too far to preserve the regular succession of all its component parts. Nothing, indeed, can be more pregnant with mischief than such a chasm, or, if the enemy be in the neighborhood, both front and rear are exposed. The best way in the passage of defiles, &c., is to proceed to a distance beyond it which shall be sufficiently extensive to admit of the whole number; there to halt, and not to march forward until the rear has completely cleared the obstacle.

HALT, is likewise a word of command in familiar use when a regiment is on its march from one quarter to another. The men are permitted to refresh themselves half-way. It should be generally observed, that to prevent soldiers from straggling about, or getting amain, persons are appointed to observe them to be disorderly, a strict order ought to be given by the commanding officer of every battalion to allow any division or detachment to halt in or near a town or village. A convenient midway spot should be chosen for the purpose, and when the men have pitched their arms (which may be done in line or in column), a few steady soldiers should be detached to guard the ground, and to prevent others from straggling beyond certain limits. Among the French it was usual for the commanding officer of a battalion, division, or detachment, in hot weather, to send a sergeant and a few steady grenadiers forward, in order to secure good water for the troops. This practice ought to be avoided as much as possible; for men are more exposed to suffer from drinking when overheated, than they would be by patiently enduring the thirst until they reach the spot where the day's march is to terminate.

To HALT in open column for the purpose of wheeling up into line. When the several companies of one or more battalions have entered the alignment, and marched with their guides of maneuver, or pivot-flanks along the line, covering each other at their due distances (for which company officers are answerable), the open column is then in a state to be wheeled into line.

As soon, therefore, as the head or rear division, according to circumstances, arrives at the given point where it is to form line, the commander of the battalion gives the word mark time, in order to afford the several ranks time to correct their dressing and distance by their guides and pivots; on the delivery of this word, the foot which is then off the ground, finishes its proper step, and the other is brought up to it; and when the whole are dressed the word is given to Halt. The instant the halt is ordered, the commanding officer from the head division of each battalion (taking care that an adjutant is placed in the true line) makes any small correction on a near point in that line that the pivots may require, although no such correction ought to be necessary.

To HALT after having wheeled from open column. The officers commanding companies, &c., having during the wheel turned round to face their men, and inclined towards the pivot of the preceding company, as they perceive their wheeling men make the step which brings them up to their several pivots, they give the word mark time—halt. The men, on receiving this last word of command, halt with their eyes still turned to the wheeling flank, and each officer being placed before the preceding guide or pivot, to which his men are then looking, corrects the interior of his company guide or pivot, his own pivot, and the general line of the other pivots. This being quickly and instantaneously done, the officer immediately takes his post on the right of his company, which has been preserved for him by his sergeant. Thus the whole line, when halted, is imperceptibly dessed.

In cavalry movements, when the open column halted on the ground on which it is to form, wheels up into line, the following specific instructions must be attended to:

Distances being just, guides and pivot-leaders being truly covered, the cannon is given, Wheel into line! when the then pivot-flank leaders place themselves each on the reverse flank of such divisions, as by its wheel up brings them to their true place in the squadron. The leading division of each squadron sends out a guide to line himself with the pivot files. At the word mark! the whole wheel up into line, which is marked by the guides or pivots, and also bounden by the horses heads of faced guides of it. — Dress—halt! is then given (as well as the other words by each squadron leader) the instant the completion of the wheel; the eyes are then turned to the standing flank (to which the correction of the squadron is made), and remain so till otherwise ordered; so that a line formed by wheels to the left, will remain with eyes to the left; and one formed by wheels to the right will remain with eyes to the right.
During the wheel up, the standard moves to its place in equation, and at the halt every individual must have gained his proper post.

HALTE, Fr. See Halt.

HALTER-CAST. In farriery, an excision or hurt to the pastern, which is occasioned by the horse endeavoring to scratch the inner part of the body near the head and neck, and thus entangling one of his hinder feet in the halter. The consequence of which is, that he naturally struggles to get free and sometimes receives very dangerous hurts in the hollow of his pastern.

HALTING, in farriery, a limping, or going lame; an irregularity in the motion of a horse, arising from a lameness in the shoulder, leg, or foot, which obliges him to travel tenderly.

HAMLET, a small village. The militia raised in the district of the Tower of London is so called, and is divided into two battalions.

HAMMER, a well-known instrument with an iron head, for driving nails, &c. The artillery uses each carry one in his butt, in order to clear the vent from any stoppage.

HAMMER, a piece of iron which stands in a perpendicular direction above the cover of the pan, being a part of the same, and serving to produce those sparks of fire that ultimately occasion the explosion of the gunpowder. The Germans call it \textit{flammen deckel}, the cover of the pan; but this expression does not convey a distinct and clear idea of the use that is made of it. Nothing, however, can be less appropriate than the term amongst us. We call the part which is struck against to produce sparks of fire the hammer; and the part which strikes, the cock; whereas that part of the cock which holds the flint is, in fact, the hammer, and the other is without a proper name. The Germans call the cock \textit{halber}, it is not within our province to propose new terms; we are therefore satisfied in having pointed out the contraction.

HAMMER-SPRING, the spring on which the hammer of a gun-lock works. It is also called \textit{feuer-sprung}.

HAMMOCK, \textit{hamcok}, Fr. a sort of bed made of cotton or canvas. Those used in America consisted of a broad piece of canvas which was suspended between two branches of a tree, or between two stakes, and in which the savages are accustomed to sleep.

Among sailors the hammock is about six feet long and three feet broad, and drawn together at the two ends, and hung horizontally under the deck for the sailors to repose in. In time of battle, the hammocks are strongly fastened and laid above the rails on the quarter-deck and forecastle, to barricade, and to prevent the execution of small shot.

HAMPE, ou HANTE, Fr. a shaft, a long stick to which any thing else is attached, as a sharp blade to form a halberd or pike.

HANDS, the ends of elliptical arches.

HAND. Among the Myoreans the print of a hand is reckoned a form equivalent to an oath. The hand is one of their military emblems, and always carried by their princes to war.

HAND, a measure of four inches, or of a climbed flat by which the height of a horse is computed. Thus horses are said to be so many hands high.

The size of military horses should run from 14 hands, and 1 inch to 16 hands high, and the ape or soft, if possible.

Hand is also used for the division of a horse into the fore and hind parts. The parts of the fore-hand are the head, neck, and fore-quarters; and those of the hind-hand include all the other parts of his body.

HAND is likewise used for the horseman's hand. Thus spear-hand, or sword-hand, is the horseman's right hand, and bridle-hand is his left hand.

HAND-BARROW, a machine made of light wood, of great use in fortification for carrying earth from one place to another, or in siege, for carrying shells or shot along the trenches.

HAND-BARROW. Weight 13 pounds, length 5 feet 4 inches.

HAND-BREATH, a measure of three inches, or a space equal to the breadth of the hand, the palm.

HAND-GUN, a gun held in the hand.

HAND-MALLET, a wooden hammer with a handle, to drive fuses, or pickets, &c. in making fascines or gabion batteries.

HAND-SCREW, is composed of a toothed iron bar, which has a claw at the lower end and a fork at the upper: the bar is fixed in a stock of wood, about 2 feet high, and 6 inches thick, moved by a tack-work, so that this claw or fork being placed under a weight raises it as far as the bar can go.

HAND-SPike, in gunnery, a wooden lever 5 or 6 feet long, flattened at the lower end, and tapering towards the other, useful in moving guns to their places after being fired and loaded again, or for moving other heavy weights.

HAND-SPIKES, Common, weight 10 pounds, length 6 feet.

HAND-TO-HAND, close fight; the situation of two persons closely opposed to each other.

HANDFUL, used figuratively, in a
military sense, to denote a small quantity or number, as a handful of men.

To HANDLE, to manage, to wield.

HANDLE arms, a word of command (when the men are at orders) by which the soldier is directed to bring his right hand briskly up to the muzzle of his gun, with his fingers bent inward. This word of command is frequently used at the private inspection of detachments, and always precedes: "Load arms."

This term was formerly used in the remotest times to signify the ascent of a hill; it is now however used only in the instance just mentioned.

To HANG FIRE, fire-arms are said to hang fine when the flame is not speedy in communicating from the pan to the charge. This defect may arise from the powder being damp or the touch-hole foul.

To HANG on, to Impede. To follow the movements of a body of men so closely as to be a constant annoyance to them.

It requires both judgment and activity in the commanding officer of a pursuing army to execute this business without endangering his troops. For it might happen that the retreating enemy, seeing an opportunity, would suddenly change his front upon the return of the pursuer.

To prevent a surprise of this sort, constant vedettes and side-patrols must be detached, and the pursuer must never attempt to follow through any considerable length of defile, or cross rivers, without having secured the neighboring enemies, and been well informed as to the nature of the stream, for some extent on his right and left.

Without these precautions he might himself be taken in flank and rear.

To HANG upon the flank of an enemy, is to harass and perplex him in a more de-structive manner than what is generally practised when you press upon his rear.

Hussars, light dragoons, mounted riflemen, and light infantry detachments are well calculated for this service. Light pieces of artillery are likewise extremely useful, but they should be cautiously reserved, as ambuscades might be laid, and their removal would require too much time. A perfect knowledge of the country in which you fight, aided by intelligent guides and faithful scouts, will be one of the best safeguards in all operations of this kind.

HANGER, a short-curved sword.

HANGING GUARD, a defensive position in the art of broadsword; it is formed by raising the sword-hand high enough to view your antagonist under your wrist, and directing your point towards his ribs. See BROADSWORD.

HANNIBAL, a celebrated general among the Carthaginians, who crossed the Alps, and threatened Rome. This able man lost all the fruits of his uncommon exertions and military talents by relaxing from that active conduct, by which he had thrown the Roman legions into confusion. He is a striking example of the propensities of mortal nature; his inclinations to the necessity of vicious and unremitting operations against a retreating enemy. See GENERAL.

HANOVERIANS, troops belonging to the Hanover, formerly subject to the king of Great Britain, and of which an able body were employed to subjugate America, for which forty pounds sterling a head were paid out of the British treasury to the elector of Hanover; they are now subjects of France.

HANSE, or HANS, (Hansa Transtiques, Fr.) a body or company of merchants united together for the promotion of trade.

HANS towns, (suii Hanso Transiques, Fr.)

Certain towns and places in Germany and the north of Europe in which a commercial compact, or agreement, for the benefit of commerce was entered into by merchants or respectable. The four towns that first united for this purpose were Lubeck, Brunswick, Danzig, and Cologne, and on that account they bore the distinguished title of mother-towns.

After the original establishment of this company, which had taken place, several towns became anxious to belong to so respectable and useful a company. They were accordingly adopted, and obtained the denomination of daughter towns. The number of these associated places amounted to 84, and they were generally called the Hanseatic or Amelrican towns. In the year 1372, a treaty of alliance was entered into between Denmark and the Hans towns. Amsterdum and other Dutch cities were included, as may be seen in a copy of that treaty which has been preserved by Boxhorn.

HAQUET, Fr. a day; a species of waggon formerly used in the artillery; they differed in their sizes and denominations according to the nature of the service.

Military HANGARUES, (Harangues militaires, Fr.) It was usual among the ancients for generals, &c. to harangue their soldiers previous to an engagement. This custom, however, is too old to be traced to its origin. Short harangues, if any are adopted, will always prove the best; for that natural impulse by which the aggregate of mankind are driven into acts of peril and possible destruction, is too subtle and too volatile a nature to bear suspense.

We find among the ancient historians various instances in which the generals of armies have judged fit to harangue their troops. It must, however, be acknowledged, that the greater part of these harangues have been studiously inadected by ingenious writers, and put into the
lips of the heroes they have thought proper to celebrate. Those which contain most common states, and are conveyed in short pithy sentences, will always produce the best effects.

Eloquence is certainly a qualification which every general of an army should possess; but, it is not, in our days, the most essential requisite in his character. Cæsar was naturally endowed with a most bewitching talent in the exercise of words; and he used it on many occasions to considerable advantage. The manner in which he was accustomed to address his men became so celebrated, that several persons belonging to the army he commanded carefully selected his military bar

rages; and, if we may believe the Chevalier Foled, the emperor Augustus was particularly pleased and entertained in having them read to him.

In Chevalier Foled's opinion, those speeches which are enlivened by expressions of humor and by occasional raillery, will always have the most influence over the minds of common soldiers. War, though apparently dictates by the laws of nature (for war and bloodshed seem to have been the concomitants of man from his first creation) cannot be so far convenient to the feelings of civilized mortality, as to mingle with sober sense and rational reflection. Consequently, those discourses which lead the common mind to think, and which induce the common heart to feel, are ill adapted to acts of violence and mutual rancour. A witicism or humorous expression has sometimes the most happy effect. The answer which Hannibal the Carthaginian made to one of his generals, whose name was Gisco, produced a fortunate emotion among the soldiers. The latter observed, that the enemy's great numbers somewhat surprised him; Hannibal, as Plutarch relates the story, immediately said, with a sort of indignant look—‘But there is another circumstance, Gisco, which ought to sur

prise you much more, and which you do not seem to know. Gisco requested to know what it might be. ‘It is,' replied Hannibal, that in so large a multitude there should not be one man whose name is Gisco.' This sarcastic observation created a loud laugh among all who surrounded the general, and the humor of the saying was instantly conveyed through the ranks.

Antagonists, according to the same authority, never adopted any other mode of conveying their sentiments to the troops. The Lacedemonians were even more ino

cise; but every thing they uttered was full of sound sense and energy of thought. The orations of Zinca, who was not only a good historian, but likewise an able general, makes his oration speak in a very emphatic and eloquent manner. Tacitus does not appear to possess much excellence in that; and the speeches which we find in Polybius, are copied after what was spoken by the several generals, whom he celebrates. Titus Livius is too ornamental and too flowery. An active and intelligent general must be a perfect stranger to that species of oratory.

We read in Varillas, a French historian, who was born in 1624, and wrote a history of France beginning with Louis XI, and ending with Henry III, &c. that Zinca (or Zvka) a gentleman and soldier of Bohemia (who was so called, because he happened to lose an eye,) made a remarkable speech to his followers. We refer our inquisitive readers to that writer's works for one of the most energetic, most soldier-like, and persuasive pieces of military eloquence that perhaps is extant. Zinca succeeded Huss, who had armed the peasants of Bohemia to resist the oppressors of the emperor and the man pointul; and although he lost his other eye at the siege of Rab, his influence and courage were so great, that he obeyed the emperor's command to send an emissary to him, and to offer him the government of Bohemia. Such was his power of persuasion, that he could not only animate his men to the most desperate feats of valor, but likewise check them in the full career of victory, to prevent plunder and unnecessary bloodshed. A remarkable instance of this sort may be found in Varillas, where he relates, that nothing but the influence which Zinca possessed over the minds of his followers could have saved the city of Prague from utter destruction.

Several specimens of military eloquence may be found in Procopius: but they possess the happy quality of being very short, full of good sense and strength of expression. Since the time of Henry the IVth of France, we find few instances in which the generals or armies have thought it expedient to harangue their troops, unless we except the battle of Nerva, previous to which Charles the Xth, king of Sweden, addressed his little army.

It frequently happens, however, that the commanding officers of corps and of detached parties, feel it necessary to encourage their men by short and appropriate speeches, alter the manner of the Lacedemonians. At the famous battle of Tory, Henry the IVth of France, rode down the front of the line, and pointing to the white feather which he wore in his hat spoke in the following emphatic manner to his soldiers:—My children (mes enfants) cried he, should any mistake or irregularity occur among the standard bearers, and your colors by any accident be mixed, recollect, that this feather will show you where you are to rally; you will always find it on the road to honor and victory! At Flerusus, general Jourdan used at the line with this short speech, 'to retreat to-day.' At Marengo Rosequette addressed the soldiers, 'remember we always sleep the night after victory on the field of battle.' At Jena he told them—' There is Rosbach and a column con-
HAR 261

memorating French defeat, we must re-
ter the honor of France, and plant a
column dedicated to French glory." Ad-
miel Nelson's ad-ress before the battle
of Trafalgar: "Perpetual record.--
"England expects every man to do his
duty." The English ladies were signi-
cantly embroidered in their garments.

HARASS, (haberd, Fr.) In a mili-
ary sense, signifies to annoy, to perple,
and to harass to render himself!

HARBOUR, in military architecture,
the instant he judged it necessary to de-
HARROW, to lay waste, to ravage, or
destroy.
HASTAIRES, Fr. soldiers armed with spears. See HASTATI.

HASP, a flat staple to catch the bolt of a lock.

HASTATI, from the Latin word hasta, a spear; so that they may literally be called spearmen. A body of Roman soldiers who were more advanced in age, and had acquired a greater reputation in arms than the Velites possessed, were distinguished by this appellation. They wore a complete set of armor, and always about four feet nine inches, or a Roman foot, two brothers. The Mahommedans of Hindostan observe it with a kind of religious madness, some acting and others bewailing the catastrophe of their saints with so much earnestness, that several of the ex-servants commit. They are likewise persuaded that whoever falls in battle against unbelievers, during any of the days of this ceremony, shall be instantly translated into the higher paradise, without stopping at any of the intermediate purgatories. On these occasions, the enthusiasm of superstition is added the more certain efficacy of inebriation; for the troops eat plentifully of banga, a vegetable substance something like hemp which yields an intoxicating juice.

HAT. Hats are no longer used by the non-commissioned officers or privates, in the European armies all the infantry wear caps of leather, &c.

HATCHET, used in the army, a small knife or an axe, with a hazel edge on the left side, and a short handle, used by the men for cutting wood to make fascines, gabions, pickets, &c.

To take up the Hatchet, among the Indians to declare war, to commence hostilities, &c.

HAUBERGEON, Fr. See HABERG EON.

HAUÉRGIER, Fr. an individual who held a tenure by knight's service, and was subject to the feudal system, which formerly existed in France, and by which he was obliged to accompany the lord of the manor in that capacity whenever the latter went to war. He was called jeff de hauert, and had the privilege of carrying a halbert. All vasals in ancient times served their lords paramount as squires, haubergiers, lance-men, bow-men, &c.

HAUÉRJON, Fr. See HABERG EON.

HAUÉRT. See HAUTBERT.

HAVÉRAS, a kind of bag made of strong coarse linen, to carry bread and provisions on a march. It is only used in the field and in cantonnements, each soldier having one.

HAVILDAIR, or 2 non-commissioned-officer.

HAVILDAUR, see officer or sergeant among the East India sepoys. He ranks next to the Jemmuta.

HAVUCK, carnage, slaughter.
HAUT-LE-PIED, Fr., a neck piece.

HAUT-BOIS, Fr., woodwind instru-ment.

HAUT-BOY, Fr., a wind-piece; a double tenaille.

HAUT-DE-PIED, Fr., a military disposition in which soldiers stood aside one another on a straight line. Se mettre en haie, is to stand rank entire. Faire un double haie, to stand two deep. Border la haie, is a disposition to which infantry has recourse when attacked by cavalry. See Border la Haie.

HAUTEUR, Fr. a measure of height. In architecture, the height of a building. In geometry, the elevation from the base.

HAUTEUR DE MARCHE, Fr. The usual depth with which a man takes in stepping, being about six or seven inches above ground.

HAUTEUR D'APPUI, Fr. breast-height.

HAUTEUR DE PARCHEMINS, Fr. The usual covered the whole of the face, except the eyes, which were protected by small iron bars laid cross-ways.

HEAD, in armour, the fore part of the headpiece, such as the light dragoons wear.

HEAD-Piece, armor for the head; an helmet, such as the light dragoons wear.

HEAD-PIECE, the fore part of the headpiece, such as the light dragoons wear.

HEAD-OF-A-CAMP, the ground before which the army is drawn up.

HEAD-QUARTERS, the place where the officer commanding an army or independent body of troops takes up his residence.

HEADSTALL, that part of the bridle which goes over the horse's head.

HEAVY, a military disposition in which soldiers stood aside one another on a straight line. Se mettre en haie, is to stand rank entire. Faire un double haie, to stand two deep. Border la haie, is a disposition to which infantry has recourse when attacked by cavalry. See Border la Haie.

HEAVY, in gunnery, the fore part of a gun or howitzer carriage.

HEAVY, in artillery, the fore part of a gun or howitzer carriage.

HEAVY-QUARTER, the place where the officer commanding an army or independent body of troops takes up his residence.

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HEBDOMADIER, Fr. The person whose week it is to be on duty.

HELEPOLIS, in the ancient art of war, a machine for battering down the walls of a place besieged. The invention of it is ascribed to Demonius the Periocrates. Diodorus Siculus says, that each side of the heliopolis was 450 cubits broad, and 90 in height; that it had 0 steps or floors, and was carried on four strong solid wheels, 8 cubits in diameter; that it was armed with huge battering rams, and had 2 roofs capable of supporting them; that in the lower stages there were different sorts of engines for casting stones; and in the middle, they had large catapults for lancing arrows.

HELCOMETRY, an art which teaches how to draw or measure spiral lines upon a plane, and shew their respective properties.

HELIODYNABOLA, is a curve arising from the supposition of the axis of the Apollonian parabola, being bent into the periphery of a circle, and is then a line passing through the extremities of the ordinates, which converge toward the centre of the circle.

HELIOSCOPE, a prospect glass to view the sun. The glass is colored in one week it is beyond the reach of the ancients to protect and watch fortified towns and places. As soon as the gates were opened they went out, and continued to patrol round the skirts of the town during the whole of the day; frequently, indeed, they advanced considerably into the country, in order to discover whether any hostile body of men was approaching in order to surprise the inhabitants.

HEXAGON, a figure that has 6 sides and as many angles, each capable of a regular basian.

HEINDECO, or HINDU, the name by which the natives of Hindostan distinguish themselves from the inhabitants of other countries.

HEPTAGON, a figure consisting of 7 sides and as many angles. If the sides be all equal, it is called a regular heptagon.

HEPTAGONAL numbers, are a sort of peculiar numbers, wherein the difference of the terms of the corresponding arithmetical progression is 7. One of the properties of these numbers is, that if the b multiplied by 9 and 9 b added to the product, the sum is a square number.

HEPTARCHY, a government which consisted of 7 kings or sovereign princes, such as the government under which England was ruled by the Saxon kings.

HERALD, an officer at arms, whose duty is to declare war, to proclaim peace, or to be employed in martial messages.

The heralds in England are judges and examiners of the heraldry, or coats of arms; they marshal all solemnities at the coronations, and funerals of their princes, &c. The origin of heraldry is extremely ancient. It is reported that the Greek herald, Steser, possessed such a powerful voice that it exceeded the united clamor of fifty men.

There are three heralds called kings at arms in England, each bearing a name peculiar to himself, and six heralds. The first king at arms is that of Garde, created by Henry V. that of Clarenceux, created by Edward IV. and that of Norroy, so called from the exercise of his functions north of the river Trent.

The heralds extraordinary are those of Windsor and Chester, created by Edward III. those of Somerset by Henry VIII. and those of York and Lancaster, created by the children of Edward III. They are paragons and structures.

HERALDS COLLEGE, a corporation in England which consists of kings at arms, heralds, and pursuivants, in which the science of heraldry is recorded.

HERAVT, Fr. herald. During the old monarchy of France there were thirty heralds each distinguished by the name of some particular province. The first of these who was king at arms, bore the title of Monseigneur de St. Denis; he had the privilege of wearing a royal coronet over his fleur de lis. On solemn occasions the king and the heralds at arms appeared in their coats of arms made of violet-colored crimson velvet, with three golden fleurs de lices before and behind, and as many on each sleeve where the name of the province stood, to which the herald belonged. They wore a black velvet cap ornamented with golden strings, and half boots, when they appeared on peaceable occasions, with whole boots on warlike or martial ones. In solemn funerals they had a long robe of black velvet. The only difference between the king at arms and the heralds with respect to dress, consisted in the richness of the embossed velvet of the former being more expensive. The coats of arms which were peculiar to the heralds were called Plaques; those of the kings at arms were distinguished by...
HERO

HEU

The name of Twaris. They carried a stick called Caduceus (such as Mercury is represented by in ancient mythology.) But this stick was not ornamented by a crown with fleurs de lis, it was only covered with crimson velvet, having a few fleurs de lis scattered here and there.

There was likewise a herald, whose particular functions were to carry the king's orders. He was entitled to a coat of arms upon violet colored velvet, intermixed with flowers of gold and gold embroidered flammes or pendants, together with the arms and collar both before and behind. He likewise wore the cross belonging to the order which was attached to a black silk cord borne cross-wise.

The author of the Dictionnaire Militaire derives the French term Huron from the German Herold, which signifies a man at arms, us Gendarme. Versican derives it from the Saxon. Other French writers derive it from an old Gallic word baron, or bara, which was used as a challenge, a notification of fresh hostilities, a ban or general assembling of the people, a loud and public proclamation of battles fought and victories obtained; on which account, according to Durand, were formerly called Clarigarvis, as well as Heraldis.

HERECTOCTONIQUE, Fr., a term in fortification signifying that branch of military architecture which specifically points out the best means of defence and the surest method of providing stores. This word is derived from the Greek.

HEREFORE, an old term from the Saxon, signifying the same as warfare.

HEREGOLD, a term derived from the Saxon, signifying a tax which was formerly levied for maintaining an army.

HERESLITA, a term derived from the Saxon, signifying a soldier who abandons his colors, or leaves the army without leave.

HERETEQ, a term derived from the Saxon, signifying the hertzog, leader of an army, a duke, the same as duke in the Latin.

HERETUM, a court in which the guards or military retinue that usually attended the old British nobility and bishops were accustomed to parade or draw up.

HERISSON, Fr., a turnpike which is made of one stout beam that is fenced by a quantity of iron spikes, and which is fixed upon a pivot, in the manner that turns alive. It is frequently used in breaches and retrenchments.

HERGATE, a term derived from the Saxon, signifying a tribute which was paid in ancient times to the lord of the soil, to enable him to carry on a war.

HERO. This name was given by the ancients to those men who became illustrious in war, and who were stiled Demi-Gods, from a general notion, that their actions entitled them to a place in heaven immediately after their decease.

The heroes of antiquity were divided into two classes, the one of mortal genealogy, the other of heavenly descent, being the offspring of some god or goddess who had connexion with the human species.

Modern authors make a distinction between a hero and a great man; the former appellation being given to one who distinguishes himself by feats of hardihood in military enterprise, and the latter to a person eminent for his virtues and extraordinary talents in civil life.

HEROINE, a term generally applied to women who have given exemplary proofs of courage and virtue.

HERISSON. See HERISSON.

HERSE, in fortification, a grate door formed by strong pieces of wood, jointed cross-ways like a lattice or harrow, and stuck full of iron spikes. It is usually hung by a rope and fastened to a mast or to a post, or with a pivot, to the end that it may fall and stop the passage of a gate or other entrance of a fortress.

These heres are also often laid in the roads, with the points upwards instead of the chevaux-de-frize, to incommode the march of both horse and foot. Common hares is sometimes made use of in cases of emergency, with their points upwards.

HERSILLON, a strong beam, whose sides are stuck full of spikes, which is thrown across the breach made by an enemy to render it impassable.

HESIANN, a substitute, a deputy, one employed to do base or dirty work for another.

HESISSANS, troops belonging to the country of Hesse-Cassel in Germany. They have been frequently hired by Great Britain, particularly in the war of American independence, when they were sold at 40l. sterling a head; nine pounds of which was to be repaid if they returned alive. Hesse has been since made subject to France, forming part of the kingdom of Westphalia.

HETMAN, Fr. sometimes called ATTENEN, a sword derived from the German, which signifies the head-man, the chief of a troop. The chief general of a great general in Poland is called Herman Witzki, and the second general Herman Poty.

The chief or general of the Cossacks is likewise invested with this title by the sovereigns of Russia.

HEURTEQUINS, Fr., two pieces of iron resembling a knocker, which are placed over the trunnions, or axis of a cannon.
HEXAGON, a figure of 6 sides and as many angles, capable of being fortified with 6 bastions. If the sides and angles be equal, it is called a regular hexagon. The side of a regular hexagon inscribed in a circle, is equal to the radius of that circle; hence a regular hexagon is nearly a solid geometrical figure, consisting of six equal spaces, along with an army, especially in the middle of the circle, where the small shot are played, that they may not be so much exposed to the view of the enemy.

HOLLOW, any pass or road, both sides of which are commanded by heights.

HOLSTERS, cases for a horseman's pistols, affixed to the pommel of the saddle.

HISTORY, a narration or description of events, the several transactions, campaigns, battles, sieges, marches, &c., of an army; likewise a relation of the heroic actions of great generals, &c.

HIVERNA, Fr. a sea phrase among the French signifying to winter.

HOGHHEADS, filled with earth, sand, &c., are sometimes used in lieu of gibbous, to cover men.

HOLD. See FASTNESSES.

To HOLD out, to maintain any place, ground, &c. resolutely against an enemy.

HOLLOW square, the form in which a body of foot is drawn up, with a vacant space in the middle for the colors, drums, baggage, &c. See SQUARE.

HOLLOW infantry, a rounding made of the remainder of two brigades, to join the curtain to the orillon, where the small shot are played, that they may not be so much exposed to the view of the enemy.

HOME-SERVICE consists in military operations and arrangements for the immediate defence of our own country, should it be threatened by invasion, or by domestic broils or insurrections. As there is a great affinity between the following general regulations for home-service, and those that are generally prescribed for foreign, we have thought it right to class the whole, including carriages, baggage, &c., under one head.

The carriages allowed, if circumstances permit, to be with each regiment of infantry, of 10 companies at 8 each, are:

1. Bread waggons; each to carry 4 day's bread for 400 men, or 2400 lb.
2. Ammunition caissons.
4. Ammunition caissons.
5. Sutler's carts.
6. Carriages for sick; or more as may be permitted.

The carriages allowed to be with each regiment of cavalry, of 10 troops of 75 each, are:

1. Bread waggons; each to carry 4 day's bread for 400 men, or 2400 lb.
2. Ammunition caissons.
4. Forage carts.
5. Carriages for sick.

Regiments on lower establishments (O) will have 1 chose and 2 carts—for major-generals, 1 chose and 1 cart.

The carriages of head quarters will be exceedingly limited by the commander in chief.

All other private carriages whatever to be considered as belonging to the heavy baggage of the army, and ordered to a great distance in the rear, and if at any time found near the army, to be
ordered to be destroyed by the baggage-marshal general.

All other baggage therefore, whether tents, blankets, or necessary for the officers, to be carried on bat horses.

The number of horses which officers of each rank may have in common situations in the field, to be specified by regulation. But as it is impossible in any service that may occur, to calculate for the carriage or use of large tents, or other conveniences which officers are generally allowed when in the field; it is always recommended to each officer to make his arrangements for moving in the lightest manner possible.

The personal baggage of each officer must be contained in a small portmanteau. One small tent is all that the officers of cavalry may be divided and carried under circumstances which of officers are generally allowed when in the field; it is always recommended to each officer to make his arrangements for moving in the lightest manner possible.

The picket ropes of the cavalry are usually allowed in proportion. The bat horses of each regiment of infantry will never exceed 16 men per new tent, and the cavalry to about 400lb. These tools to be issued to each regiment on the marching duties, but should be fully adequate to the service, and by no means convalescents recovering from long indisposition. Proper officers should be ordered to command the whole, and no part of this baggage will be allowed to join the army but by public orders. If at any time carriages not allowed in this regulation should be found in the army, they must be conducted to head quarters, and there destroyed or converted to the advantage of those who make the discovery.

Four battalion guns with two waggons will be attached to each regiment of infantry. Should it be necessary, two bat horses will be allowed for the artillery detachment.

Each artillery as remains in the park to be limited as to the number of guns, carriages, and according to the specification given to the commanding officer of the artillery.

The bat men allowed are two for each company and troop, also two for the surgeon and staff of each regiment.

Each battalion to give a non-commissioned officer and 8 men each regiment of cavalry to give a non-commissioned officer and 6 men, as a guard to their bat horses.

The following number of men on the several after-mentioned duties of the regiment will never exceed 65.

<table>
<thead>
<tr>
<th>Infantry</th>
<th>Camp color-men</th>
<th>10</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Bat horse guard</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Bread carriage guard</td>
<td>4</td>
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<tr>
<td></td>
<td>Heavy baggage</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Regimental carriages</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Allowed bat men</td>
<td>23</td>
</tr>
</tbody>
</table>

Each regiment of cavalry will receive 20 pick-axes, 20 spades, 20 shovels, 40 bill-hooks, 10 axes, amounting in weight to about 400lb. These tools to be carried in the cart allotted for that purpose, and that cart at all times, and in all situations, to march at the head of the regiment.

Each regiment of cavalry will receive 10 pick-axes, 10 spades, 10 shovels, 16 bill-hooks, and 10 axes. These tools will be carried on horseback, and on a horse with hampers allotted for that purpose.
pose, and will at all times march at the head of the regiment.

These tools are meant to be ready at all times for making the openings so necessary in an embattled country; consequently should be kept in the front of each regiment or column.

Spare appointments and arms of every kind must of course remain with the heavy baggage.

The battalion guns will always march at the head of the regiment, which ever flank leads. The ammunition waggons and carts will immediately follow the troops of the column.

The place of march of the artillery of the park and carriages will be specified in the order of march.

It is to be wished, that at all times each soldier be provided with 4 days bread in his haversack, and 3 days more carried in the regimental cartridge. When this is delivered out, those carriages, under the guard of a sergeant and 4 men per battalion, and a corporal and 2 men per regiment of cavalry, will be sent to the bazaar to be again loaded.

Each infantry soldier will always carry 20 rounds in his pouch, and 40 in his knapsack or magazine. Each horsemanship for the march box full.

The cavalry will always carry 3 days’ grain if it can be got, and hay according to circumstances.

Order of March.

When a corps moves in one column, the following will in general be the order of march: it is otherwise ordered, and exclusive of the more particular van or rear guards.

Advancing.

Advanced guard consisting of the pickets of the infantry and cavalry, and new grand guard, followed by the camp-color men.

Pioneers.

2 Regt. light dragoons.

Infantry.

Cavalry.

Regimental ammunition waggons and carts

Bat horses in the order of their regiments, artillery of the park.

General officers’ carriages, bread carriages.

Cavalry forge cart and ammunition cart.

Sutlers’ carts.

Stock carriages.

Squadron of cavalry.

One guard and small outposts and detachments which will be ordered to join it will form the rear guard.

Retreating.

Advanced guard consisting of the new grand guard, guard for head quarters, one infantry picket, camp-color men.

Pioneers.

S. S.’s.

Sutlers’ carriages.

Cavalry forge cart and ammunition cart.

Bread carriages.

General officers’ carriages.

Artillery of the park.

Bat horses in the order of their regiments.

Regimental ammunition waggons and carts.

Cavalry.

Infantry.

Regimental light dragoons.

Rear guard consisting of the infantry and cavalry picquets, old grand guard, outposts of cavalry or infantry ordered to join.

Two or more pieces of cannon will always march with the advanced guard when retiring.

When the tents are ordered to be struck, the advanced guard and camp-color men will always assemble at the head of the regiment of infantry in advancing, or of the cavalry in retiring, which leads the columns, or of such regiments as will be specified when marching in more columns than one. The general officers will each send a proper person with the camp-color men, to take possession of quarters when they can be marked.

When the army marches in more than one column, the columns will generally be composed of both cavalry and infantry; the particulars of rear and advanced guards will be specified, the generals who command them will be named, and the particular corps in the manner they follow.

When the army marches from its left, every regiment marches from its left; and when the army marches from its right, every regiment marches from its right.

When the army retires, the carriages, except such artilleries as are specified, will in general be ordered under a proper escort to precede the march of the army.

When the army is to march, the particular detail and disposition of march will not always be given out in public orders. Should the only notice given be, the army will march the —— O’clock; an hour before the time fixed for the march, the tents must be struck; the regiments will then form, and the baggage be loaded and ready in the rear of each.

Guides will be sent to the head of the regiments that lead columns and a sealed disposition of march, there to be opened by the general or oldest field officer present. In consequence of which, by him the advanced guard will be ordered to form; the regiments and carriages to close in to the leading regiments, according to the order of march, and when the whole are ready, the column, or columns, will move off in the manner then prescribed, and at the appointed hour.

In general a rendezvous will be appointed for the bat horses and carriages, that
HOM 269
they may the more readily be directed into the line of march. One subaltern per brigade will attend the bat horses; one subaltern per brigade will attend the carriages.

The aids-de-camp and majors of brigade will always regulate their watches by head quarters, at orderly time, that regularity of movement in the troops may be observed.

Commanding officers of battalions, squadrons, and brigades of artillery, will be responsible that they are formed, tents struck, and the baggage loaded in half an hour, from the time that the signal for the march was given them, and for this purpose it is necessary that they should exercise their men to it where they have opportunities.

The battalions are to march by subdivisions, and the cavalry by subdivisions, or ranks by three's or two's. If the narrowness of the route obliges them to diminish this front, they must be ordered to form up again as soon as the route permits.

Every officer must remain with his division, and never quit it on any account. No soldier to be permitted to leave his ground, or his camp, or his baggage, whatever accident may happen to any individual one, but such carriage must instantly be drawn on one side, and repaired if possible, while the rest proceed. The officers commanding the several divisions of columns will be answerable for the strict observance of this article, a failure of which might stop and endanger the whole army.

Whenever the field officers are acting in line in broken ground, and their movements are combined with those of others.

At all times when commanding officers see, that there are likely to be impediments from the nature of the ground to the movements or march of their regiments, they should always detach officers in advance to reconnoitre and point out the most convenient passages to the great routes by which the column is afterwards to march. And on many occasions, when there will not be time to open and occupy an extensive front, the army will encamp parallel to and along the great route, covered by an advanced corps on the flank next the enemy.

If a carriage breaks, it must be drawn aside, the road cleared, and a proper escort left with it, that the march of the column be not interrupted. If it can be repaired in time, it will follow; if not, the loading must be divided among the nearest carriages, who are hereby ordered to give this reasonable assistance.

The troops at most may march three miles in an hour and a quarter. The guides serve only to show the way for the columns; pioneers ordered must make the necessary openings and repair the roads. But the generals must not trust to those precautions; they must gain the most exact knowledge of the route they are to march, and themselves reflect on the most proper means to avoid all difficulties that may embarrass the march. It is always time well employed to halve the head of a column, and enlarge an opening or repair a bad step in the road, rather than to diminish the front and lengthen out the line of march.

No individual is ever to presume to march on a less front than what the leader of the column directs, and all doublings therefore must come from the head only; and the proper closeness of the march on all occasions, is a point of the highest consequence, and it is a most meritorious service in any officer to prevent all unnecessary doublings, or to correct them as soon as made, and on all occasions whatsoever, in an inclosed country, when in column, to march on the greatest front the roads or openings will allow, although the regiments or divisions before them may be marching on a narrower front.

The column must be obliged to march two abreast when the roads will allow, and the bat horses to be as connected, and take up as little space as possible. In short, it should be the study and attention of every one to contract the line of march to its just length, for notwithstanding every possible exertion it will be much too extended.

Whenever the baggage is ordered to be sent away, all carriages whatever are comprehended, except such as are particularly specified. The instant that a regiment comes to its ground, it must make openings of communication both to its front and banks. The guides serve only to shew the way the movements or march of their regiments, they should always detach officers in advance to reconnoitre and point out the most convenient passages to the great routes by which such obstacles are to be avoided, and at no time are such helps so necessary as when regiments are acting in line in broken ground, and when their movements are combined with those of others.

Whenever the army moves, the majors of brigade are made responsible, that all advanced and detached posts are called in at the proper times to their places in the column of march.

It must be observed that this is the old British system of march; the war of the
French revolution has brought this part of the art of war to a degree of perfection, which would have rendered the insertion of this unnecessary if their system were published.

HOMME, Fr. a man.

HOMME de mer, fr. a seaman.

HOMME d'armes, fr. a military phrase among the French, signifying a gentleman or cavalier who belonged to one of the old companies, was armed cap-a-pied, and always fought on horseback. In ancient times every man of this description was accompanied by two horsemen independent of his servants. One of the mounted attendants was armed with a cross-bow, and the other with a common bow or battle-axe; so that one hundred hommes d'armes composed a body of fifteen hundred armed bowmen, and he gave the troops or companies according to their size, to the princes and most experienced captains in his kingdom. For particulars we refer the curious to Le Gendre and Gaîa, Traité des armes, l. 14, and to Fuschet, l. 2. c. 1. de son Traité de la milice et des armes.

Enir Hommes de Cheval, Fr. a term in French equitation, signifying, that a man is completely master of his horse, or knows how to manage him thoroughly and according to prescribed rules and regulations. Thus il est suffisamment homme de cheval pour n'être point embarrassé de se mouvoir en commandant la troupe—He is sufficiently master of his horse, or he is horseman enough, not to be in the least embarrassed by the one he rides in exercising his troop.

HONDEAAN or HUNDYVEAAN, an Indian term signifying commission on bills of exchange.

HONEY-Combs, in cannon, flaws in the metal, a fault in casting, which renders it extremely dangerous in firing. The British board of ordnance rejects all guns (on proof) having an honey-comb of 1-th of an inch deep, as being unfit for service.

HONI sui qui mal y pense, Fr. evil be to him that evil thinks. The motto of the English order of the Garter.

HONNEUR, Fr. honor.

Honneurs Militaires, Fr. military honors. It was directed by a general instruction in the French service, that whenever an officer saluted or paid a military honor to a general officer, he should make his troop or company invisibly face towards the enemy. The same practice prevails in our service.

Honneurs funèbres, Fr. funeral honors. See Burials.

HONOR, in a military sense, is an expression, to which custom has given different meanings. Honor consists in the constant practice of virtue. Aristotle calls it the recompense of virtue; the testimony of the excellence of a man who distinguishes himself by virtue. An Italian writer calls it a state of inviolable dignity, above all calumnies, and all suspicion. Honor gives many advantages; it procures us the consideration of the public; it advances our fortunes. The best recompense of a brave action is, undoubtedly, the satisfaction of having done it; but nevertheless the honor resulting to us from it is a real good, which should be dear to us.

Honor, in a general acceptance may be properly called a consciousness of worth and virtue in the individual, and a lively desire to preserve the reputation of the public; it advances our fortunes. As a term it is variously used in military life, and frequently misunderstood by young and inexperienced officers in their first outset. As a quality of the mind, it cannot be too much encouraged or too much cultivated among military men of great ranks and descriptions. The possession of it is a guarantee for good conduct, a bond of fidelity, and a certain barrier against military corruption. Men are excited to deeds of valor and enterprise by a sense of honor, who would otherwise remain inactive, or only perform the mere drudgery of service.

This species of honor, is in fact, the root of that Esprit de corps which makes the whole body of an army tenacious of reputation, and solicits to preserve it unsoiled from the colonel down to the lowest drum boy.

This term may likewise be considered as esteem, reputation, the glory which is attached by mankind to talents and the virtues.

Affair of Honor. We have already given a general outline of this term under Duelling. The propriety or impropriety, as well as the legality or illegality of which mode of terminating human differences is thus explained by the celebrated English lawyer John Selden. His words are under the head Duet; we shall quote them under that of affair of honor.

"A Duel may still be granted in some cases by the law of England, and only there. That the church allowed it abundantly appears by this, in their public liturgies there were prayers appointed for the duellists to say, the judge used to bid them go to such a church and pray, &c. Whether this is lawful? If you make any war lawful, I make no doubt but to convince you of it. War is lawful, because God is the only judge between two, that is supreme. Now if a difference happen between two subjects, and it cannot be decided by human testimony, why may not they put it to God to judge between them, by the permission of the chance? Nay, what if we should bring it down for argument's sake, to the sword men; one gives me the lie: it is a great disgrace to take it: the law has made it
 provision to give remedy for the injury, (if you can suppose anything an injury for which the law gives no remedy) why am not I in this case supreme, and may therefore right myself.  

"A duke ought to fight with a gentleman; the reason is this: the gentleman will say the duke, it is true you hold a higher place in the state than I; there is a great difference between you and me, but your dignity does not privilege you to do me an injury; as soon as ever you do me an injury, you make yourself my equal; and as you are my equal I challenge you; and in sense the duke is bound to answer him."

In addition to what Selden has said upon duelling, we shall quote a passage from Dr. Robertson's History of the reign of Charles the V., which will shew that this mode of determining private disputes is extremely ancient.

"It is evident" observes that author, "from Velleius Paterculus, lib. ii. c. 118, that all questions which were decided among the Romans by legal trial, were terminated among the Germans by arms. The same thing appears in the ancient laws and customs of the Swedes, quoted by Jo. O. Sternalhook de Jure Sueonum et Gothorum vetusto, 4to Holmiae 1682, lib i. c. 7. It is probable, that when the various tribes which invaded the empire were converted to Christianity, their ancient custom of allowing judicial combats appeared so glaringly repugnant to the precepts of religion, that for some time, it was abolished, and by degrees, several circumstances which I have mentioned led them to resume it.

"It seems likewise to be probable from a law quoted by Sternalhook in the treatise which I have mentioned, that the judicial combat was originally permitted in order to determine points respecting the personal character or reputation of individuals, and was afterwards extended not only to criminal cases, but to questions concerning property. The words of the law are, If any man shall say to another these reproachful words: You are not a man equal to other men; or, You have not the heart of a man, and the other shall reply, I am a man as good as you, let them meet on the highway. If he who first give offence appear, and the person offended absent himself, let the latter be deemed a worse man even than he was called; let him not be admitted to give evidence in judgment either on man or woman, and let him not have the privilege of making a testament. If he who gave the offence be absent, and only the person offended appear, let him call upon the other thrice with a loud voice, and make a mark upon the earth, and then let him who absented him self be deemed infamous, because he uttered words which he durst not support. If both shall appear properly armed, and the person oppressed shall fall in the combat, let a half compensation be paid for his death. But if the person who gave the offence shall fall, let it be imputed to his own rashness. The petulance of his tongue hath been fatal to him. Let him lie in the field, without any compensation being demanded for his death. Let Uplandica ap. Sterii, p. 76. Martial people were extremely delicate with respect to every thing that affected their reputation as soldiers. By the laws of the Salians, if any man called another a harry, or accused him of having left his shield in the field of battle, he was ordained to pay a large fine. Lex Sal. tit. xxxii. § 4 6. By the law of the Lombards, if any one called another a harry, i.e. a good-for-nothing fellow, he might immediately challenge him to combat. Leg. Longob. lib. i. c. 6. By the law of the Salians, if one called another reclusus, a term of reproach equivalent to harry, he was bound to pay a very high fine, tit. xxxii. § 4. Paulus Diaconus relates the violent impression which this reproachful expression made upon one of his countrymen, and the fatal effects with which it was attended. De Gestis Longob. lib. vi. c. 24. Thus the ideas concerning the point of honor, which we are apt to consider as a modern refinement, as well as the practice of duelling, to which it gave rise, are derived from the notions of barbarians." See Robertson's History of Charles V. pages 271, 272.

We shall not take leave of our learned author without giving two or three instances out of his proofs and illustrations relative to the termination of private feuds by judicial or private combat.

This mode of trial was so acceptable, that ecclesiastics, notwithstanding the prohibitions of the church, were constrained not only to connive at the practice, but to authorize it. A remarkable instance of this is produced by Pasquier, Recueils, lib. iv. ch. 1. p. 319. The abbot Wittikindus considered the determination of a point of law by combat as the best and most honorable mode of decision. In the year 978, a judicial combat was fought in the presence of the emperor. The archbishop Aldbert advised him to terminate a contest which had arisen between two noblemen of his court, by this mode of decision. The vanquished combatant, though a person of high rank, was beheaded on the spot. Chronic. Ditmani, Episc. Morb. chez Bouquet Recueil d'Hist. tom. x. p. 121. Questions concerning the property of churches and monasteries were decided by combat. In the year 981, a controversy concerning the church of St. Mclard, whether it belonged to the abbey of Beauveau or not was terminated by judicial combat. Bouquet Recueil des Hist. tom. ix. p. 729. ibid. p. 512, &c. The emperor Henry I. declares that this law, authorizing the practice of judicial combats, was enacted
with consent and the applause of many faithful bishops. Ibid. p. 231. So remarkable did the initial ideas of those ages prevail over the genius and maxims of the canon law, which in other instances was in the highest credit and authority with ecclesiastics. A judicial combat was appointed in Spain by Charles V. A. D. 1522. The combatants fought in the presence of the emperor, and the battle was conducted with all the rites prescribed by the ancient laws of chivalry. The whole transaction is described at great length by Pontus Heuterus Rer. de la Chastagnerie, A. D. 1547, authorized by the magistrate, was the history of France, of a judicial combat of great length by Pontus Heuterus Rer. de la Chastagnerie, A. D. 1547. A trial by combat was appointed in England, A. D. 1550, under the inspection of the judges in the court of Common Pleas; and though it was not carried to the same extemity with the former, queen Elizabeth having interposed her authority, and enjoined the parties to compound the matter, yet in order to preserve their honor, the lists were marked out, and all the forms, previous to the combat, were observed with much ceremony. Spelm. Gloss. Vocab. Camp. p. 103. In the year 1631, a judicial combat was appointed between Donald lord Rea, and David Ramsay, Esq. by the authority of the lord high constable and earl marshal of England; but the judicature, that in former times not only the property of individuals was considered, but their feelings, as men of honor, were consulted. Law, however, soon obtained the entire ascendancy, and judicial or private combats were not only laid aside, but were moreover strictly forbidden. The military character alone seems to have retained a sort of tacit privilege to make appeals to the sword, in cases where the nice sensibility of the heart breaks through the trammels of legal disposition, and establishes points of honor which can only be determined by personal exposure. Thus we find that although premeditated duels were severely punished in France, Riencontre or accidental quarrels were always overlooked, whatever their issue might be. Frederick the Great of Prussia seems to have set his face against duelling altogether. Yet it is said, that notwithstanding his severe prohibitions, a Prussian officer was under the necessity either of vindicating his wounded honor by an appeal to the sword or pistol, or was disgraced for having suffered a personal affront. In England the same hardship exists. Lord Kenyon declared from the bench, that he would personally interfere as expounder of the British laws, should any minister recommend mercy to his majesty on the conviction of an individual who had murdered his fellow creature in a duel. See Donk. 

Word of Honor, (parole d'honneur, Fr.) A promise or engagement that is made or entered into by word of mouth, the breach of which entails disgrace upon the violator. 

Point of Honor, (point d'honneur, Fr.) A delicacy of feeling, which is generally acquired by education, and strengthened by an intercourse with men of strict integrity and good conduct. It is likewise very frequently the offspring of peculiar habits, received notions, and established etiquettes. The French familiarly say, Il se fait battre pour un point d'honneur; they fought for a point of honor; they likewise say, Il y a de son honneur, his honor is at stake. 

To die upon the bed of Honor, (mourir au lit d'honneur, Fr.) is a term particularly applied to military men, who die in battle fighting in their country's cause. 

A court of Honor. Although a court of honor may be said, in some degree, to resemble a court of inquiry, nevertheless it cannot be strictly so; for a court of honor has not only the power of ascertaining the degree of guilt which may be attached to misconduct, but it can entail ignominy upon the guilty person; whereas a court of inquiry only investigates the matter and circumstances, and determines whether there be sufficient ground to try the accused before a general court martial; which is the last resort of military jurisdiction, and unites within itself all the qualities and powers of the other two courts. 

A debt of Honor, an obligation which among honorable men, especially officers, is more binding than those engagements or contracts that are guaranteed by law. The reason is manifest. 

Honor by Guards, as a compliment to general officers, &c. with the detail of officers and men they are entitled to in the English army. 

The commander in chief, if a field-marshal or captain-general, has 1 captain, 1 lieutenant, 1 ensign, 2 serjeants, 2 drummers, 2 fifers, and 50 privates, with colors. 

A general of horse and foot has 1 captain, 1 subaltern, 2 serjeants, 2 drummers, 2 fifers, and 50 privates. 

A lieutenant-general of horse and foot has 1 lieutenant, 1 serjeant, 1 drummer, 1 fifer, and 30 privates. 

A major-general of horse and foot has 1 ensign, 1 serjeant, 1 drummer, 1 fifer, and 20 privates. 

A brigadier has 1 serjeant and 12 privates. 

A quarter-master general has 1 serjeant and 12 privates. 

Majors of brigade encamped together, have 1 serjeant and 2 privates.
A judge advocate has 1 serjeant and 7 privates.

A provost-marshal has 2 serjeants and 8 privates.

A provost-marshal, when he has prisoners, has 1 lieutenant, 2 serjeants, 1 drummer, 1 fifer, and 9 privates.

Military Honors. A field-marshal in the British service is to be saluted with the colors and standards of all the forces, except the horse and foot guards, and excepting when any of the royal family shall be present; but in case a field-marshal is colonel of a regiment, or troop of horse or foot guards, he is to be saluted by the colors or standards of the regiment or troop he commands.

Generals of cavalry and infantry, upon all occasions, are to have the march beat to them, and to be saluted by all officers, those bearing the colors excepted.

Lieutenant-generals of cavalry and infantry are, upon all occasions, to be saluted by all officers. They are to have three ruffles given them, with presented arms.

Major-generals are to have two ruffles with presented arms.

To colonels their own quarter-guards in arms every time they pass, and present their arms, once a day, after which they only turn out of arms every other time they stand by their arms.

When a lieutenant-colonel or major commands a regiment, their own quarter-guards pay them the same compliment as is ordered for the colonel.

Honor to be paid by the cavalry. — A general of cavalry or infantry is to be received with swords drawn, kettle drums beating, trumpets sounding the march, and all the officers to salute, except the cornet bearing the standard.

A lieutenant-general is to be received with swords drawn, trumpets sounding twice the trumpet flourish, as in drawing swords, and all the officers to salute except the cornet bearing the standard; but the kettle drums are not to beat.

A major-general is to be received with swords drawn; no trumpet to sound, nor any officer to salute, nor kettle drum to beat.

A brigadier-general is to be received with swords drawn; no trumpet to sound, nor any officer to salute, nor kettle drum to beat.

All officers in the command of forts or garrisons, have a right to the complimentary honors from the troops under their command, which are due to the rank one degree higher than the one they actually possess.

Manner of paying honors. — In the British service the king's standard or color in the guards, is never carried by any guard except that which mounts on his majesty's person.

The first standard, guidon, or color of regiments, which is the union color, is not carried by any guard but that on the king, queen, prince of Wales, or commandant in chief being of the royal family; and, except in those cases, it always remains with the regiment.

When general officers, or persons entitled to a salute, pass in the rear of a guard, the officer is only to make his men stand shoulder'd, and not to face his guard to the right about, or beat his drum.

All sentries are to pay a due respect to every officer who passes by their posts, but are to keep their proper front while paying the compliment.

All governors, whose commissions in the army are under the degree of general officers, shall have, in their own garrisons, all the guards turn out with rested arms, and beat one ruffle; and though the main guard turns out with rested arms every time he passes, yet they give him the compliment of the drum but once a day; but all the other guards beat as often as he appears near them.

If they are general officers likewise, they are then to have the further compliments paid them, by the several beatings of the drum, as practised in the army.

Regulation of honors to be paid to admirals. — Admirals, with their flags on the main-top, are to have the same respect from the troops as generals of cavalry and infantry; that is, upon all occasions to have a march beat to them, and to be saluted by all the officers, those bearing the colors excepted.

By the army, vice admirals are to have the same respect as lieutenant-generals of cavalry and infantry; that is, upon all occasions to have a march beat to them, and to be saluted by all the officers, those bearing the colors excepted.

Rear admirals are to have rank as major-generals.

Commodores with broad pendants have the same respect as brigadier-generals; which is, to have one ruffle.

Rank and precedence between sea and land officers. — The admiral or commander in chief of his majesty's fleet is to rank with a field-marshal of the army.

The admirals with their flags on the main-top mast-head, are to have rank with generals.

Vice admirals are to have rank as lieutenant-generals.

Rear admirals are to have rank as major-generals.

Commodores with broad pendants are to have rank as brigadier-generals.

Captains commanding post ships, after three years from the date of their first commission for a post ship, are to have rank as colonels.
All other captains commanding post ships, are to have rank as lieutenant-colonels.

Captains of his majesty's ships or vessels, not taking post, are to have rank as majors.

Lieutenants of his majesty's ships are to have rank as captains.

The rank and precedence of sea officers, in the classes above-mentioned, are to take place according to the seniority of their respective commissions.

Post captains commanding ships or vessels that do not give post, rank only as majors during their command of such vessels.

No land officer is to command on board any of his majesty's squadrons or ships, nor any sea officer to command on land; unless either have a right to demand military honors due to their respective ranks, unless they are upon actual service.

All guards and sentinels are to pay the same compliments to the officers of the navy, as are directed to be paid to the officers of the army, according to their relative ranks.

The compliments above directed are to be paid by the troops, to officers in the service of any power in alliance with the British king, according to their respective ranks.

Turning out of the line. The line turns out without arms, whenever the general commanding in chief comes along the front of the camp.

When the line turns out, the private men are to be drawn up in a line with the colors and standards; the corporals on the right and left of their respective companies, the platoon forms behind the colors, accounted, but without arms.

The officers and non-commissioned officers are to be drawn up with their respective companies. The field officers in their proper posts in battalion, two ensigns taking hold of the colors.

When the commander in chief comes along the line, the camp colors on the flanks of the parade are to be struck, and planted opposite to the bells of arms, and the drums piled up behind the colors; the halberts are to be planted between, and on each side of the bells of arms, the lanterns turned from the colors.

Honors of war, in one sense are stipulated terms which are granted to a vanquished enemy, and by which he is permitted to march out of a town, from a camp or line of entrenchments, with all the insignia of military etiquette. In another sense they signify the compliments which are paid to great personages, military characters, &c. when they appear before any armed body of men; or such as are given to the remains of a deceased officer. The particular circumstances attending the latter are well known, and depend greatly upon the usages of different countries. Those which regard our own service may be seen under British.

With respect to the former we think it necessary to observe, that it is extremely difficult, and much beyond the limits of this work, to describe them specifically; as much, indeed almost every thing, depends upon the disposition of the general who grants the capitulation.

In some instances, the troops of a besieged garrison are permitted to march out with drums beating, colors flying, &c. others are only allowed to advance silently in front of their works, round or pile their arms, face to the right and return within their line of entrenchments. Others again (as was the case with earl Cornwallis, at York Town, in Virginia) are permitted to march out, with drums beating to a given spot, there pile their arms, face to the right about, and march back to their works. In the instance quoted, the officers retained their side arms and baggage, with such horses as they had lawfully obtained by purchase, &c. A sloop of war was allowed to proceed to New York with dispatches from the British general to sir Henry Clinton, who was commander in chief of the forces acting against America, which vessel passed and repassed without being searched.

This indulgence proved extremely fortunate to a small number of American refugees, who were peacefully transported into the British lines, instead of being sacrificed to the just fury of their countrymen in arms.

When the town of Valenciennes surrendered to the coalition army, the garrison under the orders of general Ferrand was permitted to march out by the gate of Cambray with the honors of war. It was, however, specifically stated, that the troops should lay down their arms at a named spot, viz. at a house called le Briquet, where they were to leave their colors and field-pieces without damaging them in the least. They were likewise directed to leave their troop horses, artillery, provisions, and other military effects. Those belonging to the officers were restored to them, with their swords.

It was further agreed, that the garrison should march out on the 1st of August, in the manner mentioned; and as the troops were prisoners of war, their route to return into France was to be communicated to them 24 hours previous to their departure, in order to receive their parole of honor. The officers and soldiers engaged not to serve during the whole course of the present war against the states of his majesty the emperor, and of his allies, without having been exchanged conformably to the cartels, under pain of military punishment.

General Ferrand had demanded that the garrison should march out from the place on the 6th day after the signature of the capitulation, to repair to such part of the French republic as he should judge proper, with arms and baggage, horses, drums, bagpipes, matches lighted at both ends.
colors flying, and with all the cannon they could carry away. These articles were referred to the Duke of York; and on the 28th of July, 1793, Valenciennes surrendered to the British arms, in trust for the emperor of Germany.

As soon as the surrender was signed, hostages were sent into the town, namely, a colonel, a major, and a captain, who were exchanged against officers of an equal rank of the garrison; which hostages were restored immediately after the execution of articles of capitulation.

When Mantua surrendered to Bonaparte, the veteran general Wurmser, in consideration of his brave defence of the place, was allowed to leave the place with all the honors of war.

Several emigrants on this occasion, escaped in the covered wagons.

When Saraossa was taken by marshal Lannes in 1809, it was refused the honors of a capitulation, but ordered to surrender peremptorily at a given hour on several points, which was obeyed. This was observed, and in some degree, by the troops of the French, means a blow upon the head.

The same precautions (indeed greater if possible) are indispensibly necessary to prevent the dreadful consequences of contagion, that are directed to be observed in the fumigation, &c. of transports. During the old government of France, hospital-ships were of a particular construction. Independently of the equipment, tackle, &c. belonging to every other navigable ship, these vessels were directed to have their decks extremely high, to have large port-holes, and to have the space between the decks constantly clear, so that the cots and bedding of the sick might be conveniently placed, and a constant circulation of free air be preserved.

HOSPITAL, foot soldiers among the Greeks, who bore heavy arms, and engaged with broad shields and long spears.

These took precedence of all other foot soldiers.—Potter's Greek Ant. vol. ii. c. 3.

HOR BONUM, EYE. It is directed in all well-disciplined corps, that every officer, non-commissioned officer, and soldier, when regimentally dressed, should have the uniform coat hooked across the chest. This is a rule, in some degree, been dispensed with during the winter months, as far as it regards the officers who have been permitted to button their coats. In some corps the indulgence is rendered nugatory, as the facings are sewed to the coat. The dressing of a line is certainly rendered more perfect by the use of the hooks and eyes, as they prevent any intermediate obstacle along the line of sight. This nicety is indispensable in parade business, and the propriety of some general rule being established is manifest, since every soldier knows, that the slightest deviation from the laudable system of uniformity almost always leads to gross neglect.

HORUS, Fr., a sort of garment, which was worn during the old government of France by gentlemen belonging to the king's body-guard, who were called gardes de la manoeuv. It sometimes signifies a sergeant; but the term is obsolete.

HORDE, a crowd or assemblage of people, who have not any fixed or certain habitation. The term was originally applied to a body of Tartars, who followed a roving life, encamped in different countries, and chiefly lived with their flocks.

HORION, Fr., a term which formerly signified a helmet, and which in the vulgar acceptance of it now, among the French, means a blow upon the head.

HORIZONTAL, parallel to the horizon; on a level.

HORIZONTAL, Fr., a circular iron band. Several sorts of hoops are used in the construction of artillery carriages, as nave and axle tree hoops, &c.

HOSPITAL, Fr., hospital. During the old French government, there existed at military hospitals under the immediate sanction of the king. These hospitals were subject to the war-minister, from whom they received instructions, and they were all originally built for the benefit of sick and disabled soldiers. The chief appointments in each hospital consisted of a comptroller of accounts, a physician, a surgeon major, and a contractor, whose sole duty was to provide for the wants and necessaries of the invalid troops. These were permanent establishments. In time of war, every army had a certain number of hospitals attached to its component parts. These were likewise other hospitals, which were under the intendant of each province. They chiefly consisted in those erected on the frontier and in garrison towns.

HOSPITAL, foot soldiers among the Greeks, who bore heavy arms, and engaged with broad shields and long spears.
HOR IZO: T AL

The following useful theorems come from the pen of the ingenious Dr. Halley:

1. A shot being made on an inclined plane, having the horizontal distance of the object it strikes with the elevation of the piece, and the angle at the gun between the object and the perpendicular, to find the greatest horizontal range of that piece loaded with the same charge of powder that is, half the latus rectum of all the parabolas made with the same impulse.—Take half the angle contained between the object and the nadir, and the difference of the given angle of elevation from that half; subtract the versed sine of that difference from the versed sine of the angle made by the object and zenith. The difference of those versed sines will be to the sine of the angle last mentioned, as the horizontal distance of the object struck to the greatest range at 45 degrees.

2. Having the horizontal range of a gun, the horizontal distance and angle of inclination of an object to the perpendicular, to find the two elevations necessary to strike that object.—Take half the angle contained between the object and nadir; this half is equal to half the sum of the two angles of elevation sought. Then say, as the horizontal range is to the horizontal distance of the object, so is the sine of the angle of inclination to a fourth proportional; which fourth, being subtracted from the versed sine of the angle formed by the object and zenith, leaves the versed sine of half the difference of the angles of elevation, whose half sum was before obtained; therefore, by adding and subtracting half the difference of the angles of elevation to and from the said half sum the elevations themselves will be found.

HORN. See BucKLE hOss.

HORN. work. See FORTIFICATION.

HORS de Combat, a French military phrase, signifying that an individual or body of men, are to completely beat by superior skill, &c. as not to be able to maintain the field of battle; thus a wounded man is hors de combat.

Mette Hors de Combat, to drive your opponent before you; to press him so closely that he cannot make a stand against you.—To put him out of the lists of combat.

Hors de portée, Fr. (in fencing) out of distance.

Hors de mesure, Fr. (in fencing) out of measure.

HORSE, in a military sense, a body of horse. See CAVALRY.

Associated Horse—a body of cavalry so called in the days of Cromwell. At the famous battle of Nashie (fought on the 14th of June, 1645,) which decided the fate of Charles the First, the associated horse were posted in the rear of the right wing of the Republican army, and formed part of the reserve. There were troops of the association stationed in the rear of the left. Oliver Cromwell commanded the cavalry on the right of the whole, and the associated horse were under his immediate orders.

Horse rear-side protect. A guard used in the cavalry sword exercise. See Sword Exercise.

Horse off-side protect. See Sword Exercise.

HORSES.—An allowance of 2 ft is generally made for the breadth of each horse standing at the pock; and about 9 feet for the length of a horse.

A light dragoon horse, mounted and armed complete, carries about 4 cwt. 1 qr. and 14 lbs. without forage. Horses in the service of artillery should not be made to draw above 3 cwt. each, besides the weight of the carriage.

Horses for this service should never be lower than 14 hands. The contractor is obliged to furnish them of this height for government. A horse is generally supposed equal to five men.

Military horses walk about 400 yards in 4 1/2 minutes.

Test the same distance in 2 minutes 4 seconds, and gallop in about 1 minute.

With great burdens, less weight must be allowed for each horse to draw, than with medium burdens; as it cannot be supposed that, of a team of 8 horses, the leaders can draw so much as the horses nearer the carriage; and this disadvantage must increase as the team lengthens. A team of horses may draw 5 cwt. each. Tol. 2 cwt.

6 Do. ——— 5 do. ———— 29 do.

8 Do. ——— 4 do do. ———— 30 do.

12 Do. ——— 4 do do. ———— 43 do.

30 do, including the carriages. See also the word Load.

It is usual in heavy carriages to reckon all their weight exceeding 12 cwt. as part of the load.

Horses allowed for drawing Field Artillery Carriages.

All the horse artillery carriages are drawn by 4 horses each, except 12 pr. which have 6 each. Park Carriages, 12 pr. medium, and 6 pr. heavy, 6 horses each—6 pr. light, and 5 1/2 howitzer, upon the new construction, are allowed each 4 horses, but upon the old only 3 each.

Ammunition waggon, com. pat. 3 horses.

Do. ——— Flanders pat. 4 do.

Forge cart, 2 horses—Am. cart, 2 do.

Horses falsely mustered are by the 27th section of the British mutiny act to be forfeited, if belonging to the person who lent them for that purpose, if not, the person lending them to forfeit 20l. When officers belonging to the cavalry regiments purchase horses for public service, they are to make the best bargain they can for government, and to account for every saving which has been made, within a limited sum.
HOSPITALS are frequently in barns, stables, granaries, and other out-houses; but above all, churches make the best hospitals from the beginning of June to October; these hospitals are solely for the use of the regiments they belong to.

Every regiment on the British establishment has an hospital for the reception of the sick belonging to it. This hospital is under the immediate care of the regimental surgeon, who is subordinate to the general medical board.

Officers commanding brigades are enjoined frequently to visit the hospitals of the regiments composing their brigades, and minutely to investigate the economy and order therein established; to enquire into the state of the patients, their diet, and attendance of every kind, and to enforce the strictest observance of the hospital regulations.

These attentions are required still more in detail, from commanding officers of regiments, who from personal observation have opportunities of checking every abuse, and whose duty it is to exert in the hospitals the same system of order, regularity, and discipline, which should prevail in their regiments.

The captain and subalterns of the day of each regiment are to visit the hospital at different and uncertain hours, to observe the cleanliness of the wards, the regularity of meals and the appearance of the men, who, while they are in the hospital, are by no means to be permitted to contract habits of slovenliness in their dress, but are expected to appear perfectly clean in every particular.

Every species of gaming is strictly forbidden. Any patient convicted of swearing, disorderly behaviour, insolent and provoking conduct towards the attendants, or of any deviation from the hospital regulations, will be severely punished.

The captain of the day is to report any irregularities, he may observe, to the commanding officer of the regiment.

The surgeon is to make a daily report of the sick to the commanding officer, who will make a weekly report to the officer commanding the brigade, who will make a general report of the sick of his brigade once a week to head quarters.

Regimental hospitals are under the immediate direction of their respective surgeons, subject to the general instructions and superintendence of the inspector of regimental hospitals, or other professional
persons, having authority for that purpose, from the war department, or the commander in chief. It is the duty of the inspector of regimental hospitals, and of such other officers of the medical staff as shall be ordered for that purpose to visit regimental hospitals from time to time; to observe whether the hospital regulations are strictly adhered to, to ensure whether any causes of complaint exist among the patients, and to submit to the generals commanding in districts, such local observations as he conceives may tend to the benefit of the sick.

When a regiment is stationed in a barracks, where no detached building is appropriated for the hospital, or in camp and cantonments, it is the business of the surgeon to procure an airy, and commodious hospital, taking particular care, that it is amply supplied with wholesome water.

In camp, a tent will be allowed, which must be pitched upon the best dry piece of ground in the vicinity of the regimental hospital, to which it is granted as an aid, but must not, except in cases of absolute necessity, be itself considered as the hospital.

The responsibility for the order, regularity, and cleanliness of the regimental hospital, for the diet and care of the patients, and for the general conduct and economy of the whole establishment, rests entirely with the surgeon; but commanding officers are enjoined to furnish such military assistance, as may be necessary for the attainment of those objects, and all non-commissioned officers and others placed in the hospital, in aid of the surgeon, are commanded to yield the greatest implicit obedience to the instructions they may receive from him, and to enforce in every instance, the most minute observance of the hospital regulations, which are to be fairly written, and fixed on a board in the most conspicuous part of the entrance of the regimental hospital.

The surgeon should be consulted in the selection of the serjeant to be appointed to assist him in the hospital; and it will tend materially to the benefit of the sick, that this non-commissioned officer, and the orderly men acting in the hospital, should be considered as being in a permanent situation, and not liable to be removed except in cases of misdemeanor.

A guard is to be constantly furnished to the hospital, and the surgeon must signify to the commanding officer of the regiment, the particular orders which he wishes to be given to the non-commissioned officer commanding it, and to the sentries.

When a soldier comes into the hospital, his arms and accoutrements are to be taken in charge by the non-commissioned officer attending the hospital, but his ammunition is to be left with his troop or company, and is in no instance to be taken with him to the hospital.

Regimental surgeons are enjoined to take under their care any non-commissioned officers and soldiers of other regiments, (upon the commanding officer's authority for so doing being obtained) who from the absence of the corps to which they belong, from being no general hospital in the neighborhood, or from other unavoidable circumstances, are under the necessity of applying to them for relief and assistance.

It cannot be superfluous to remark in this place, that in the French service there was, and we believe there still is, a specific regulation, which directs, that all soldiers who have contracted a venereal disorder should be received into one of the public hospitals, without exception or distinction. They are attended to in a particular manner, being quartered with their corps, and sometimes provided with a separate tent. Particular care is taken not to mix their linen or clothes with others, and they are always washed apart. No soldier, whose disorder has been pronounced incurable was ever received into any of the public hospitals. The physician or surgeon only gives the incurable a certificate of their state and condition.

It is very desirable that in every regimental hospital, there should be an apartment appropriated to convalescents, whose diet and mode of living must remain under the direction of the surgeon, and who must themselves be in every respect, subject to the hospital regulations. A trusty non-commissioned officer must be appointed to the superintendence of the messes, and conduct of this particular ward.

Convalescents, on coming out of the hospital are not to be put on duty, till the surgeon certifies to the adjutant, that they are perfectly recovered; for which purpose the surgeon, or assistant surgeon, must make a particular inspection of these men, at morning parade, to prevent any remaining longer exempted from duty, than the state of their health renders absolutely necessary. On a march, when circumstances will permit, the packs of such convalescents, as have not yet received certificates of their being fit for duty, should be carried for them.

Convalescents, when discharged from the hospitals should not be put immediately on public duties, but should be employed for a certain time, on regimental guards only, where they are not liable to be so much exposed to the weather, or to fatigue.

It is most positively ordered that the surgeon or assistant surgeon shall attend all parades and field days. No punishment is to be inflicted, but in the presence of the surgeon or assistant surgeon.

In cantonments and barracks the quarters of the surgeon must be near the hospital, and the assistant surgeon's tent.
must be pitched in its vicinity when a regiment is in camp.

The instructions for the economy and management of regimental hospitals are framed by the War Office.

Chelsea Hospital. See Chelsea.

Greenwich Hospital. A magnificent building originally instituted by King Charles II. for decayed seamen and mariners. It stands upon the banks of the river Thames, has a delightful park annexed to it, with an astronomical observatory. It is situated five miles east of London, in the county of Kent.

Hospital-mate, in recruiting districts. An hospital mate should be placed under the orders of each field officer, to examine the recruits when brought for inspection, and to give such medical assistance as may be in his power, to the several recruiting parties in the district he belongs to. The actual disbursements of the said mate for medicines, when not supplied from the public stores, will be reimbursed to him by the district military agent upon a certified account thereof, vouched by the approving signature of the inspector of the district.

Hospital-fever, a name given to the malignant catarhal fever, as being the most frequent in hospitals.

Hospodar, a dignitary title which is given to the prince of Wallachia who is tributary to the Grand Seignor, and from whom he receives the investiture.

Host, an army; any large body of men assembled together in arms.

Hostage, in the art of war, a person given up to an enemy, as a security for the performance of the articles of a treaty. When two enemies enter into a treaty or capitulation, it is common for them mutually to give hostages as a security for their reciprocally performing the engagement they have entered into. An hostage becomes either an accessory, or principal according to the state of things. Thus, for example, he is accessory when a prince promises fidelity to another prince, and gives either his son or some great lord, as a security for his performance, without any further capitulation; for then these hostages are only an additional engagement of the prince; and if he violates his word, they are not in any manner responsible. An hostage becomes a principal when it is stipulated that he shall be answerable for the event of things. For instance, if a city promise to surrender within a certain time, in case it is not succoured, and, for the security of this article, give hostages (which are in the same nature as bail given to a creditor to secure a debt); so that if the succour arrives in time, the promise becomes void, and the hostages are discharged; but if the succours do not arrive, and the city is guilty of a breach of faith by refusing to surrender, then the hostages become principals, and may be punished for a breach of faith.

Hostile, inimical; suitable to an enemy.

Hospitilites, Fr. See Hostilities.

Hostilities, in a military sense, may imply a rupture between the inhabitants of the same country, town, or place, and the first outrage that is committed by either party, as in general matters of warfare, is considered to be the first commencement of hostilities. Between nations, the first act of hostility is taken as a declaration of war. There are, however, certain established laws and regulations by which acts of hostility formerly were governed; without the intervention of these restrictions, war is conducted upon the most brutal and ferocious principles. Every wise and good general will except his influence and authority to soften the fury of his victorious men, let the contest be ever so obstinate and bloody. Self-preservation, indeed, suggests this natural precaution; for if soldiers were permitted to ill-treat their prisoners, the same system of retaliation must prevail.

Hostility, denotes a state of war or enmity between two nations. During a truce all acts of hostility are to cease on both sides.

Hosting. An obsolete term, formerly signifying the mustering of men in arms.

Hotel des invalides, Fr. a spacious building which was erected by Louis XIV. in Paris, at the extremity of the Faubourgh, St. Germain, upon the river Seine, as a public monument of charity and magnificence. All disabled, infirm, and wounded officers and soldiers were received, lodged, and subsisted, during the remainder of their lives within its walls. The established number upon the foundation was 4000, including officers and soldiers. All exceeding that number, and who were less incapable of bearing arms, were distributed among the different garrison towns upon the frontiers of the kingdom, in detached and separate companies.

During the old government of France, a particular staff was appointed to superintend the duty at the Invalides, and a guard was regularly mounted every morning. Officers and soldiers, entitled to this charity, were first received in 1670. M. de Louvois, minister and secretary at war, was the first director and administrator general, and M. Dormoy was the first governor commandant. The staff consisted of one director and administrator general, one governor commandant, one lieutenant du Roi, one major, two adjutants, one garçon major, one director and superintendent of the hospital, and one inspector and commissary general, who did the duty of commissary at the different inspections.

No person could be admitted into the royal hospital of invalids unless he had served
twenty years successively and without interruption, or had been dangerously wounded in the service of his country. Hence the word *bod* a well known machine for carrying bricks.

HOTTENTOTS, the Aborigines, or native inhabitants of our present settlement at the Cape of Good Hope.

HOULLIER, Fr. an obsolete French term, which meant what is now expressed by Piccureur des armes, or a free bannet.

HOU, a gold coin of the Mysore country, value about four rupess, or two dollars.

HOURDEYS, Fr. an old French term which signified, first, hurdles with which the tops of the walls belonging to a fortified town were covered, in order to shield them against the concussion of warlike machines; and secondly, a machine formerly used, which was called in Latin bordurium.

HOUSEHOLD troops: The Life Guards, Royal Regiment of Horse Guards, and the three regiments of Foot Guards are so stiled. It is a ridiculous privilege of these regiments, in the British service, that no officer of the line, ennobles or militia, can sit upon a court martial which may be assembled for the trial of any person belonging to them.

HOUSING, or saddle-housing, cloth, skin, or other ornaments added to saddles, by way of distinction; frequently embroidered with gold or silver, or edged with gold or silver lace.

HOW, See HOUSING.

HOWITZ, a kind of mortar, mounted upon a field-carriage like a gun; the difference between a mortar and a howitz is, that the trunnions of the first are at the end, and of the other in the middle. The invention of howitzes is of much later date than mortars, as from them they had their origin.

The constructions of howitzes are as various and uncertain as those of mortars, excepting the chambers, which are all cylindrical. They are distinguished by the diameter of the bore; for instance, a 10 inch howitz is that, the diameter of which is 10 inches; and so of the larger or smaller ones.

Howitz battery is made as a gun battery, only the embrasures are made at least a foot wider, on account of the shortness of the howitz. See Battery.

Field Howitzer. The modern French use 6-inch howitzers in the field, which can throw a grenade at 6 degrees elevation, to a distance of 600 toises. The 6-inch howitzer can likewise throw to a smaller distance, a cartridge with 61 ball; of se-

Field of Custos, a sort of haud-basket, which is often made use of in the construction of batteries and other works, and serves to carry earth from one part to another. Hence the word *bod* a well known machine for carrying bricks.
### Howitzers—Dimensions and weight of brass Howitzers.

<table>
<thead>
<tr>
<th>Kind</th>
<th>Length (ft. Inch)</th>
<th>Weight (cwt. qrs. lbs.)</th>
<th>Length of Shot (ft. Inch)</th>
<th>Chamber</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1 1/2</td>
<td>21</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>24:7</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>24:7</td>
</tr>
</tbody>
</table>

**Table containing the Kind of Howitzers and Shells by different powers in France.**

<table>
<thead>
<tr>
<th>Power</th>
<th>Shells</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

*See the word Shells for the Principle, year and service of the Howitzers. That is, the Howitzers to be used in the respective year and service.*

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### French Howitzers, in their own old weights and measures.

<table>
<thead>
<tr>
<th>8 inches 2 inches diameter</th>
<th>Ft. In.</th>
<th>lbs.</th>
<th>lbs. oz.</th>
<th>charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0 to 1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0 to 1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Range with a light 5, 1/2 horse Howitzer.**

<table>
<thead>
<tr>
<th>Deg. Sec.</th>
<th>Yards</th>
<th>Range to first grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>85</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>

**Range to second grade.**

<table>
<thead>
<tr>
<th>Deg. Sec.</th>
<th>Yards</th>
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</tr>
</thead>
<tbody>
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<td>85</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>

**Range to extreme grade.**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
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<td>85</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>

**Range with a heavy 5, 1/2 horse Howitzer.**

<table>
<thead>
<tr>
<th>Deg. Sec.</th>
<th>Yards</th>
<th>Range to first grade</th>
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</thead>
<tbody>
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<td>65</td>
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</tr>
<tr>
<td>3</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>
coat, breeches, hair, complexion, eye, marks, and remarks, trade, &c. parish
born, county born, line, from whence, agent's name, agent's abode.

HUGHLY WACCA, Ind. a newspaper or chronicle which is kept by the officers of the native governments in India.

ILLISSER d'armes, Fr. tipstaff; an officer formerly so called in France, who was attached to the royal household. They were at first distinguished by the name of Sergens d'armes, or serjeants at arms, borne were directed to bear the mace before the king during the day, and obtained on that occasion the appellation of Illisiers d'armes: in later times while the monarchy subsisted, they were called the Illisiers, or tipstaffs of the king's chamber. Others kept watch in the king's bed-chamber during the night, and were sworn to expose their lives for the safety of his person, whence they obtained the name of arceurs de la garde, which term was changed into gardes-du-corps, or body-guards.

Death HUNTERS, followers of an army, who, after the engagement look for dead bodies, in order to strip them. They generally consist of soldiers wives, &c.

HUNGARIAN battalion, a body of men belonging to the Austrian army, whose dress consists in a white jacket, the buttons straight down to the waist, with blue colored collar, cuffs and skirts before and behind, like the rest of the Austrian infantry, with this difference, that the latter have white breeches and long black gaiters, and the former wear light blue pantaloons and half-boots.

HUNS, GOTHs, and VANDALS, barbarous tribes that inhabited the various provinces of Germany which had never been subdued by the Romans, or were scattered over those vast countries in the north of Europe, and north west of Asia which are now occupied by the Danes, the Swedes, the Poles, the subjects of the Russian empire, and the Tartars.

HURDLES, in fortification, are made of twigs of willows or osiers, interwoven close together, sustained by long stakes. They are made in the figure of a long square, the length being 5 or 6 feet, and breadth 3 or 3 1/2. The closer they are wattled together, the better. They serve to render batteries firm, or to consolidate the passage over muddy ditches; or to cover traverses and lodgments for the spears of the workmen against the fireworks, or the stoncs, that may be thrown against them.

HURDLESS Battery, See Battery. These are the invention of colonel Crewe of the British Artillery, and are admirably adapted for temporary fortifications. They consist of hurdles fixed in the ground in a triangular form, the intermediate space being filled with sand or earth, &c. are constructed in a few minutes, and in any figure.

HURTER, a flatted iron fixed against the body of an axle-tree, with strips to take off the friction of the axes of wheels against the body.

HURTOIR, a piece of timber about 6 inches square, placed before the wheels of a carriage, against the parapet of a battery, to prevent the wheels from doing damage to the parapet.

HURTLE. See Skirmish.

HUSB ul bookum, or HASAB ul bookum, Ind. a patent or order, under the seal of the Vizier, with these initial words, which signify, always to command.

HUSSENS, Fr. Hussars. They were first introduced into the French service in 1692, and owed their origin to the Hungarian cavalry which was established by France before the reign of Louis XIII.

HUSIIARS, are the national cavalry of Hungary and Croatia, that encamp, consequently are not burthened with any kind of camp equipage, saving a kettle and a hatchet to every six men. They always lie in the woods, out-houses, or villages, in the front of the army. The emperor of Austria and the king of Prussia, had many troops under this name in their service. See CAVALRY.

Death's-Head HUSARS, a regiment of Hussars in the Prussian service, so called from the emblems of death being exhibited on their caps. They were dressed in black, faced with yellow, and rode small active horses.

In the seven years war they obtained considerable reputation under the command of the brave and intrepid general Zeitlen.

HUT, The ancient mode of encamping was in little huts. In the American war, huddled camps were not uncommon. The French armies have encamped in huts from 1793, as in that years campaign they lost all their tents.

HUTTER, Fr. Hut.

HUZZUOR NAVEIS, Ind. a secretary who resides at an Indian court, and keeps copies of all firman, records, or letters. Lissaus, is the court, Nau, a writer.

HYDER, the Arabic term for lion. This title is often given to men of rank in India.

HYDER Al, the sultan of Mysore; was known under the name of Hyder Naiak; his son Tippoo succeeded him, and was killed at the storming of Serain at the British forces. See HYDER ABADE.

HYDER Cooly, a term of subjection used in India, meaning literally the slave; but not so understood, it is a proud assertion of humility, such as the pope used, in calling himself the fisherman.

HYDER ABADE, HYDRABAD, a city in Asia, which arose from the desertion of Golconda. This name is often used in Hindustan when Hyderabad is meant. Hyderabad became the principal rendezvous of the Mahomedans opposed
JAF

JAN 283

to the Marathas whose country lies be-
tween Guzerat and Golconda. See Ma-
ratnas.

HYDRAULIC (Hydraulique, Fr.), the
name of a particular science, which points
out the method of conducting and raising
bodies of water.

Colonnes Hydrauliques, Fr, col-
unns ornamented by sheets of water or
water spots.

HYDROMETER (Hidrometre, Fr.)
the name of an instrument which serves
to ascertain the dryness or moisture of the
atmosphere.

HYDROSTATIC (Hydrostatique, Fr.)
the name of a science whose principal
object is to ascertain the weight of fluids,
particularly of water, and of all bodies
that are either borne upon the surface
or immersed beneath it.

HYPERBOLA, the section of a cone
made by a plane, so that the axis of the
section shall incline to the opposite leg of
the cone.

HYPOTHENUSE, that line which
subtends the right angle of a right angled
triangle.

J.

JACK. See Gin.

JACK-boots. Boots formerly worn by
cavalry, made of thick firm leather,
hardened in a peculiar manner, that is by
a mixture of rosin, pitch, and oil, applied
before a fire until they become stiff
and impervious to water. They were some-
times lined with plates of iron. The best
infantry caps are jacked leather.

JACK-walibalons, a sort of coat ar-
mor, formerly worn by horsemen, not of
solid iron but of many plates fastened to
gether, which some persons by tenure
were bound to find upon any invasion.

JACKET, a short coat. See Cloth-
ing.

JACOB's Staff, a mathematical in-
strument for taking heights and distances,
called also against staff.

JACQUES, ou JACQUIE, Fr., a sort of
close jacket, which was formerly worn by
the free archers, or free archers, and
reached down to the knee. These jackets
were stuffed underneath the linen or cloth
with which they were made. They some-
times consisted of leather, lined with 20
or 30 pieces of old cloth, rather loosely
put together. The ancient horsemen
wore these jackets under their coats of
mail, and they were called giletson.

JADE, Fr., a very hard stone, of an
olive color, with which the handles of
swords and sabres are made in Poland
and Turkey. This stone is said to pos-
sess wonderful virtues for the removal of
the gravel or nephritic colic; in these
cases it is simply applied to the loins.

JAFFURNAPATAM. The town of
Ceylon is so called by the Indians. The
port of Jaffur.

JAGURNHAUT, Jad, a Hindoo pa-
da, on the Calabar coast, bay of Bengal.

JAGHIRDA, the person in pos-
session of a jaghire.

JAGHIRE, an Indian term, signi-
yfying the assignment of the revenues of
a district to a servant or dependant of go-
government, who is hence called a jagh-
irdar. Jaghires are either waxbuts, which
means conditional, or belauburt, which
signifies unconditional. Jaghires are fre-
cently given in India to persons as a
reward and compensation for their mi-
ilitary services. The British obtained
footing in Bengal first as traders by cour-
tesy; they then got a Jaghire washer.

JAGHIRE, Jad, lands granted for
private maintenance.

JAM, Fr. which is sometimes written
jomb, is a thick bed of stone, by which
the operations of the miners are sudden-
ly interrupted when they are pursuing the
veins of ore.

JAMB. An obsolete word, which
formerly signified boots, covers, or arm-
ror for the legs.

JAMBS, sometimes written jaumb,
Fr. The side posts of a door.

JALONNEMENT, d'une colonne, Fr.
The designation of certain points by
these stones are more generally called
gates.

JALONS, Fr. long poles with a wisp
of straw at the top. They are fixed at
different places and in different roads, to
serve as signals of observation to ad
vancing columns, when the country is in-
closed, &c. They are likewise used as camp
signs, of which the columns are painted
in days of exercise.

JALONNEMENT d'une colonne, Fr.
is the designation of certain points by
which a column is governed its march.

JALONNERS, Fr. are the men se-
lected from a battalion to mark out the
ground, or, to take up relative points to-
wards which the columns may march.

JAMBEUX. An obsolete word,
which formerly signified boots, covers, or
armor for the legs.

JAMBEUX. An obsolete word,
which formerly signified boots, covers, or
armor for the legs.

JANBAR, Jad, an advocate; &c.
founded; it likewise signifies a partial person.

**JANISSAIRES, P. See Janizaries.**

**JANIZARIES.** The first establishment of this body of armed men took place when the sultan Amurat obtained such wonderful success in the inroads that were made into Thrace, and a part of Macedonia, by the Basha Lala, Saim, and Ayarazis. Nor was the sultan satisfied with this good fortune; he pushed his successes into Europe, and took an immense number of prisoners of all ages, but principally children. These were put under military tuition, with the view of befriending converting them to some useful purpose for the Ottoman state.

Amurat took advice of one Agis Biccat, who by the dint of hypocrisy had obtained the character and reputation of a very virtuous man. Agis Biccat gave directions in the first instance, that these children should put several christians to death. He did this with the view of accounting their young minds to scenes of slaughter, and to inure them to cruelty, as they were hereafter to compose the groundwork of the Turkish infantry, under the appellation of **janizaries, or new militia.** He next instructed them to observe an austere and barbarous outside appearance, and to become emulous of acquiring peculiar fame whenever they should be engaged in battle. In order to impress them with ideas of grandeur, he twisted it in the shape of a turban, put it round the head of one of the children, when the corps were first established. This turban of cap was the model which the rest were to imitate. The Janizaries wear the same sort to this day, with the addition of some gold lace.

The body of janizaries has been considerably augmented since their first establishment. According to a late account they have been increased to 14,222; these have been divided into three separate corps, viz., into the **janizaries** or new militia. These were moreover distinguished among themselves by the following names; the **cenvys,** *cenvys,* and the **koyali,** or the **surtour,** in the same loose manner that Europeans wear great coats or cloaks.

They are under chiefs appointed for the specific purpose of superintending their conduct and behaviour, and are subordinate to particular officers, whose charge is confined to corps or companies, or is a Turkish word, which properly signifies chamber or room, being thus called from the place in which they were ordered to mess. At Constantinople these chambers are covered with a sort of china ware; and there are recesses, called *sophas,* on which the men may sit or sleep. A kitchen is attached to each room, with every other convenience. When they take the field the same arrangement is attended to. The different companies being distributed in large round tents that are distinguished by the figures of men and Arabic words.

All the janizary companies consist of 196 men each. There are 101 companies of **janizaries,** who form the garrisons of the most important places upon the frontiers.

The officers belonging to these companies are permitted to ride in the presence of their general, which is a privilege peculiar to themselves. On this account they wear yellow half boots. The **beys** consist of 61 companies; the commanding officers are obliged to wear red half boots, which is to shew, that they are not permitted to go through their duty on horseback.

The **soldiers** amount to 34 companies. The officers belonging to them are subject to the same regulations by which the **beys** are governed. They must march by their general in red half boots on foot, with this exception, that 30 supernumerary young men, who are seconded, and in expectation of commissions through the influence of their parents, are allowed to ride until they get companies.

A select body of men is indiscriminately chosen out of these three sorts of janizaries; this chosen body is called the **cenvys,** and amounts to 930 men. Their particular duty is to protect the three imperial mansions of Constantinople, Adrianople, and Bursa.

Every janizary is obliged to give one and a half per cent. of all money he receives in time of peace to the treasurer of his room, or to the treasurer general of the corps, and seven per cent. in time of war. In consideration of this sum he is allowed a space of ground, six feet in length and three in breadth to spread his tent, and to have every day at dinner and supper one plate of rice, a piece of mutton, and bread and water; so that a janizary may easily save the greatest part of his pay.

The uniform or clothing of a janizary is a dolima, or long robe, with short sleeves. It is tied round the middle with a striped girdle of different colors, fringed at the ends with gold or silver. They wear over the dolima a safi, or blue surtout, in the same loose manner that Europeans wear great coats or cloaks.

Instead of a turban the janizaries have their heads covered with a **sareche,** or cap made of felt, from which hangs a long hood of the same stuff, that reaches to their shoulders, and is worn on parade days. The sareche is decorated with a quantity of long feathers, that are fixed in a small tube, and stand in the front of the cap. The janizaries in Constantinople usually carry a long stick or Indian cane, without any other arms or weapons; but when they are equipped for the field against any European power, they have a sabre and musquet. They likewise carry a powder horn, which hangs on the left side suspended.
from a leather string that is thrown across the body.

In Asia, the janizaries always go armed with a bow and a quiver full of arrows. They are thus equipped on account of the scarcity of gunpowder; and in the Turkish language, which they draw against every person from whom they wish to extort any thing. The bows and arrows are regularly delivered out to the janizaries by the admiral, or vice treasurers general.

The janizaries seldom marry, or if they do it is at an advanced age; for the Turks as well as other countries imagine that a married man cannot be so determined and careless of danger, as he must be who has no concerns to attend to besides his own. Matrimony, however, is not forbidden amongst them. On the contrary, when the ceremony is performed with the consent of their officers, they are permitted to take private lodgings, and are only required to appear every Friday at their Tours, and to parade before the Wazir, or treasurer to the chamber, under pain of forfeiting their subsistence. When they get children, their pay is increased some Aspers per day, by order of the grand Signor.

The body of janizaries is by no means, however, so considerable as it formerly was. In 1648, they were so formidable, that the janizaries assumed a dangerous influence over the government of the Empire. They even went so far as to dechristianise the Sultan Ibrahim, and afterwards to strangle him in the castle called the Seven Towers. Since that period the grand Signor, are innumerable; for it is at an advanced age; for the

The remedy has been as fatal as the disease; they have had a prolifick rabble in place of their hardy and enterprising corps; and in the year 1808, depopulated and put to death the grand Signor, for a bribe from a foreign ambassador.

The janizaries consist chiefly of Christian children that have been taken in war, or of debauched Turks who are ignorant of their birth or connexion. Whenever any one des, he leaves what little property or clothing, &c. he possesses to his messmates; even the Turks, from a species of social piety, always bequeath something to their particular ass, or chamber. The consequence of which is, that the chambers become extremely rich, and their wealth is frequently put out to interest at 25 per cent. Add to this, that the grand Signor directs that every thing which is supplied to the janizaries should be paid lower than to the rest of his subjects, which circumstance easily explains why the janizaries can live cheaper than other people in Turkey.

Janizars Agas, a name or military title which is attached to the person who has the chief command of the janizaries. It corresponds, in some degree, with the rank of colonel general in infantry in old France, when that body was under the command of the duke of Epson, and afterwards under the duke of Orleans in 1720. This Aga takes precedence of all the infantry officers belonging to the Ottoman empire. The name is derived from Aga, which, in the Turkish language, signifies a chief, or huter. On public occasions the Aga always bears a staff in his hand; so indeed do all the janizaries when they appear in any large town or place, as an emblem of service.

This general was originally promoted to the rank of Aga out of the corps of janizaries. But as this was the occasion of much jealousy, and gave rise to various cabals, which frequently rendered the

The daily pay of the Aga amounts to one hundred aspers, which are equal to 20 cents, or French half-crowns, making 55 cents of our money; independent of which he receives from 7 to 10 thousand French ecus or English half-crowns, on account of the Timmers who are attached to his appointment. He moreover gets constant presents from the Sultan, especially when the janizaries have conducted themselves to his satisfaction on any critical emergency. The doocum which is lavished upon the Aga, whenever he has the good fortune to stand well with the grand Signor, are innumerable; for it is through him, that every application is made for places of emolument. It is customary, however, in Turkey to bestow rank and advantageous posts not according to merit, but in proportion to the number of purses, (in which manner all large sums are counted) that are produced by the several candidates. A purse in Turkey contains about 250 crowns, or 500 of our dollars.

The Aga seldom appears in the streets of Constantinople without being followed by a large body of janizaries, most especially when any convulsion or disastrous event has happened in the empire. In these moments of public disturbance and consternation, the janizaries take occasion to demand an increase of pay threatening, in case of refusal, to pillage the town.
which threat they have often put in execution. Whenever these mutinous proceedings take place, the Aga marches at the head of 30 or 40 mungis or provost-marshals belonging to the janizaries, together with 5 or 600 of this militia, in order to seize the mutineers, and to have them safely conveyed to some prison.

He has the power of life and death over every individual of the corps; but he never gives directions to have a janizary executed in open day, lest the sight of their suffering comrade should create a disturbance among the rest. Small crimes and misdemeanors among the janizaries are punished by the bastinado, which is exercised by striking repeated blows upon the sole of the foot; but when the guilt is capital, the Aga orders the culprit either to be strangled, or to be sewed up in a sack and thrown into a pond or river.

When the Janizar-Agasi dies, from disease or by violence, the whole of his property devolves to the treasury belonging to the corps of janizaries; nor can the grand Signor appropriate one asp to his own use.

JAVELIN, a sort of spear 5-1-2 feet long, the shaft of which was of wood with a steel point. Every soldier acquainted with the Roman arms had seven of these, which were very light and slender.

The Velites or light armed troops among the Romans were armed with javelins. They were two cubits long and one inch thick.

There were several sorts of javelins or darts used among the ancients; some of which were projected by the help of a short strap round their middle. There was likewise another species of javelin, the bottom of which was ornamented with three feathers, in the same manner that arrows and darts are. These javelins have been used by the Poles and Moors, who call them javelons. In the early days of France, the javelin was likewise adopted in imitation of the Gauls; but it disappeared, only the expance of ground upon which it had been erected, but the science of ichnography does not represent either the elevation or the depth of the different parts belonging to a fortification. This properly comes under profile, which does not, however, include length. See PLAN.

JEE, Ind. a title of respect which is used in India, and signifies sir, master, worship.

JEE POTE, Ind. a statement and decree.

JEHU, Ind. a term used in India, signifying the possessor of the world.

JEHU, Ind. a term used in India, signifying the conqueror of the world.

JEHU AM SHAH, Ind. king of the world.

JEHU, Ind. a term used in India, signifying the possessor of the world.

JEHU MUL, Ind. belonging to the train or equipage.

JEMADAR, Ind. the Indian word for month.

JEMADAR or JEMMADAR, Ind. means a captain or chief of a company; it is the title of a black officer who has the same rank as a white lieutenant in the Indiaman company's service. The author of the history of the Carnatic calls Jemmadars the captains of horse or foot.

JENIZER, EFFENDI, an appointment among the Turks, which in some
degree resembles that of provost-marshal in European armies. The only functions which this officer is permitted to exercise are those of judge to the company. He sits on particular days for the purpose of hearing the complaints of the soldiers, and of settling their differences. If a case of peculiar difficulty should occur, he reports the same to the Aga, whose opinion is always final.

JERSEY, an island on the coast of Normandy in France, which has belonged to the British ever since the Norman conquest. Although this island, as well as that of Guernsey, is still governed by the ancient Norman laws, it is nevertheless subject to the British mutiny act in many particulars.

JEU, Ind. Mukt, fine, or penalty.

JETH, Ind. the name of a month which in some degree coincides with our month of May.

JET, Fr. a term signifying the motion of any thing that is urged forward by main force; it likewise means the space which is gone over by any propelled body.

JET DES BOMBS, Fr. This word has been adopted instead of Tir, which formerly expressed the course that a shell took when it was thrown out of a mortar by the power of gunpowder. We sometimes use the words flight and range, to express the same action and progress.

The jet or flight of a bomb usually forms a curved line; but many engineers assert, that when the mortar is placed horizontally, it describes the three movements that are made by a cannon ball, viz. The violent or straight forward one, which is perpendicular to mortars of six inches calibre, and which is loaded with two pounds and a half of mealed gunpowder, gives a difference in its flight of 48 feet from one degree to another; and 2160 feet in its greatest extent under the elevation of 45 degrees.

The same mortar gives a difference, from one degree to another, of 60 feet, provided there be two pounds and a half of the same powder in its chamber, and it gives 2700 feet for its greatest flight.

It finally gives 72 feet difference from one degree to another, if the charge consists of three pounds of mealed gunpowder, and the elevation be taken at 45 degrees, which in the opinion of bombardiers, is the greatest flight, taking a range of 3800 feet when the mortar is placed horizontally.

Among the French bombardiers there are tables put out according to this calculation, which may be found in Blondel or St. Remi. These tables are adapted to mortars of six inches calibre, which weight we have taken for example.

Jet, among the French is likewise applied to the range taken by a fusee, as jet de la fusee, the flight of a fusee.

1 cannon foundries it is further used to express the different pipes or hollows which are made of clay or wax, in order to convey the liquid metals into their moulds. In this sense it means cast, so that jet may be properly called a vent or aperture which is made at the extreme end of the mould and through which the metal is poured.

Un beau JET, Fr. a fine cast.

JETTE, Fr. a pier. It usually consists of a projection, made with stone, brick or wood at the extreme end of a harbour, for the purpose of resisting the impetuosity of the waves.

JEU DE BONARD, Fr. chance play. It was our intention to have entered fully into this subject, as far as it concerns the military system, under the head Bonard; but as the matter has been more particularly adverted to in a French author, we judge it best to quote from that authority.
and to show, that, corrupt as the old government of France most unquestionably was, the character of its army was not neglected. Every species of chance play was strictly forbidden in the French camps and garrisons, and throughout their armies. The prohibitions on this head were the most ancient dates. On the 22d of May, 1557, Francis I, issued an order, which was again confirmed by Henry II. on the 31st of May, 1557, that no comrade should, under any pretext whatever, obtain money from a brother soldier by play. It was further ordained, that in case of foul play, the persons who should be discovered were, for the first offense, to be publicly whipped, and for the second to be punished in the like manner, to have their ears cut off, and to be banished for ten years. The delinquents were committed to the charge and custody of the provost, who was authorized to confiscate every farthing that was played for. Dice and cards were rigorously forbidden under the same penalties, as well as all sorts of games which create animosities and dissensions among individuals.

On the 15th of January, 1691, Louis XIV, issued an order from the privy council, by which he expressly forbade not only the officers belonging to his army, but likewise all other persons of whatever sex or denomination to play at Dice, Pharaoh, Barabooes, Buzzard and Pique en Case. The penalties for every infractions or breach of this order were as follows. Those persons who played were fined 1000 livres or 200 dollars, and the master or mistress of the house where games of the above description were allowed, stood fined 10,000 livres, or 2000 dollars for each offence. One third of these penalties was applied to his majesty’s use, one third to the relief of the poor of the place where the offence was committed, and the other third was paid to the informer. It was further ordained, that in case the persons so discovered were unable to pay the fines, their persons should be taken into custody. Those subjected to the penalty of 1000 livres were imprisoned four months, and those who incurred the fine of 10,000 livres, without having the means to pay it, were imprisoned one year. The intendants, or lord-lieutenants of the provinces and armies, the police magistrates, and the military provosts, were all and severally directed to see this edict put into execution; and by a circular letter, which in 1712, was written, in the king’s name, by M. Vosin, to the different governors and lord-lieutenants of provinces, the prohibitions were extended to the laique officers in the seacoast, and islands.

On the 23d of August, 1698, Louis XIV, issued an order, by which he rigorously forbade, under pain of death, every individual belonging to the French cavalry or infantry, (laurels and private soldiers included) to keep any gaming table in camp or quarters. In consequence of these regulations, and with the view of introducing the strictest principles of honor and regularity in a profession which must be tarnished even by the breath of suspicion, on the 1st of July, 1727, Louis the XVth ordained by the 43d article of war, that whatsoever soldier, horse or foot, was convicted of cheating at play, should be punished with death. He further directed, that in case any hazard table should be set up in a camp, or garrison, the commanding officer or governor was to order the same to be broken forthwith, and to commit all persons concerned therein to prison.
incorporated by the sentence of a general court-martial, and ordered incapable of ever serving his majesty in either a civil or military capacity.

Inch, a well known measure in length, being the 12th part of a foot, and equal to three barley-corncs in length, or measure.

Inclination, the direction with which one body strikes another; the angle made by that line and the plane of the body struck, is called the Angle of Inclination, which see.

Inclinaison, Fr. See inclinaison.

To incline, in a military sense, means to gain ground to the flank, as well as to the front. Inclining is of great use in the marching of the line in front, to correct any irregularities that may happen. It is equivalent to the quarter facing and to the oblique marching of the infantry. It enables you to gain the enemy's flank without exposing your own, or without whetting or itching the parallel front of the squadron.

Right (or left) incline. A word of command in cavalry movements, when each man makes a half-face on his horse's front, and moves the whole of his horse's head to boot. The baggage of a captain to be valued at 70/. and the camp equipage, 90/. ordered: every other man in the squadron for loss or penalty.

Incomplete, opposed to complete, which see.

To incorporate. In a military sense, is to add a smaller body of forces to a larger, and to mix them together. Independent companies are said to be incorporated, when they are distributed among different regiments, brigades, etc. So that any lesser body may be incorporated in a greater.

Incurse, invasion without conquest; incursion, ravage.

Indemnification, any reimbursement or compensation which is given for loss or penalty.

Military indemnification, a regulated allowance which is made by the British for losses sustained by officers or soldiers on actual service, viz.

1st. The whole of the personal baggage of a subaltern officer to be valued at 60l. and the camp equipage between two subalterns, 35l.
2d. The baggage of a captain to be valued at 60l. and the camp equipage, at 35l.
3d. Field officer's baggage, 100l. and the camp equipage, 50l.
4th. Colonel's baggage, 120l. and camp equipage, 80l.

Cavalry.
5th. The whole of the personal baggage of a subaltern officer to be valued at 70l. and the camp equipage at 45l.
6th. Captain's baggage, 90l. and camp equipage 45l.
7th. Field officer's baggage, 130l. and camp equipage 90l.
8th. Colonel's baggage, 150l. and camp equipage, 90l.
9th. Officers giving certificates signed by themselves and the commanding officer of their regiments, that they have not lost the whole of their baggage and camp equipage, and that at the time it was lost, they were in no respect deviating from the orders of the general officer.
commanding in chief relative to baggage, shall receive the whole of the sums above allotted, according to their ranks.

10th. Officers losing any part of their baggage, are to give in similar certificates, according to the best of their belief and judgment, without entering into particulars, but estimating, their loss at one-fourth, one-half, or three-fourths of the whole value, according to which they shall be paid the like proportion of the above sums.

11th. The whole baggage of a quarter-master of cavalry shall be estimated at 40l. A quarter-master losing the whole or any part of his baggage, must produce certificates from the officer commanding, and from his captain, as to the quantity of his baggage, which to the best of their belief and judgment has been lost, according to which he will receive the whole or a proportion, of the above sum of 40l.

12th. The baggage and camp equipage of all staff officers of both cavalry and infantry, are to be valued as those of subaltern officers, except for such as are allowed a tent to themselves, whose camp equipage in that case will be valued as that of a captain.

13th. A sergeant of cavalry losing his necessaries, without any fault of his own, shall receive 2l. 15s.

14th. Corporal, trumpeter, or private, 2l. 10s.

15th. Sergeant of infantry, 2l. 10s.

16th. Corporal, drummer, or private, 2l. 6s.

17th. A servant, not being a soldier, 3l. 6s.

The certificates in these five cases to be the same as in the case of the quarter-master.

18th. Officers on actual service, whose horses shall be killed or taken by the enemy, or shall be shot for the gendarmerie, receive allowances by way of indemnification for them, according to the following rates; viz.

**Cavalry.**

- Heavy dragons, first charger, 47l. 5s.
- Light dragons, first ditto, 36l. 15s.
- Heavy or light ditto, second ditto, 3l. 10s.
- Quarter-master’s horse, 29l. 8s.

**Infantry.**

- Field officer’s charger, 38l. 10s.
- Adjutant’s ditto, 3l. 10s.
- Chaplain’s and subaltern’s horses, each 18l. 15s.
- Bat horses, (both cavalry and infantry) 18l. 15s.
- General officer’s first charger, 47l. 5s.
- Second ditto, 36l. 15s.
- Aids de camp, brigade majors, and other staff officers, whose situations require their keeping good horses, receive as the light dragons.
- Staff officers, for whom inferior horses are deemed sufficient, 18l. 15s.

Certificates, stating the particular circumstances and causes of the loss of the horses, are to be signed by the officers themselves, and by the commanding officers of their regiments.

And the general officers commanding in chief on the different foreign stations, are to decide on the claims preferred in their respective districts of command upon the ground of this regulation, and to state payment accordingly.

**INDEMNITY,** a security or exemption from penalty, loss, or punishment. It is sometimes connected with amnesty. Thus Charles the second on his restoration, endeavored to conciliate the minds of his subjects, by promising amnesty and indemnity to the different parties that had been directly active, indirectly instrumental, or passively the means of his father’s death.

To INDEBT, a word particularly made use of in India for the dispatch of military business. It is of the same import and meaning as to draw or set a value upon. It likewise means an order for military stores, arms, &c. As an indent for new supplies, &c.

**Indenture** in fortification, is a line running out and in like the teeth of a saw, forming several angles, so that one side defends another. They are used on the banks of rivers, where they enter a town; the parapet of the covert-way is also often indented. This is by the French engineers called redans. Small places are sometimes fortified with such a line, but the fault of such fortifications is, that the besiegers from one battery may turn both sides of the redans, and make an assault without fear of being embosomed, since the defences are ruined.

**Indemnity, in a military sense, is a term which distinguishes from the rest of the army, those companies that have been raised by individuals for rank, and were afterwards drafted into corps that were short of their complement of men.**

**Indemnity Company,** is one.

**Indemnity Troop,** that is not incorporated into any regiment.

**INDIAN Camp,** An Indian camp may be considered as one of the least assemblages of men, women, and children, that can perhaps be imagined.

Every common soldier in the army is accompanied with a wife, or concubine; the officers have several, and the generals whole seraglies; besides these the army is commanded by a number of attendants and servants, exceeding that of the fighting men; and to supply the various wants of this aggregate multitude, dealers, peddlers, and retailers of all sorts follow the camp, to whom a separate quarter is allotted, in which they daily exhibit their different commodities, in greater quantities, and with more regularity, than in any fair in Europe; all of them lying on the ground in a line, with their merchandise exposed before them, and shelter-
Indian Engineer. Mr. Orme, in his history of the Carnatic, affords an instance of the art of engineering being known, and cultivated by the native Indians. In page 265, he gives the following account of a place called Chingleput, which had been fortified by an Indian engineer. Chingleput is situated about 30 miles west of Covelong, 40 south-west of Madras, and within half a mile of the northern bank of the river Palli. It was, and not without reason, esteemed by the natives, a very strong hold. Its outline, exclusive of some regular projections at the gateways, is nearly a parallelogram, extending 400 yards from north to south, and 320 from east to west. The eastern and half the northern side, is covered by a continued swamp of rice-fields, and the other half of the north, together with the whole of the west side, is defended by a large lake. Inaccessible in these parts, it would have been impracticable, if the south side had been equally secure; but here the ground is high, and gives advantages to an enemy. The Indian engineer, whoever he was, that erected the fort, seems to have extended the common reach of his countrymen in the knowledge of his art, not only by the choice of the spot, but also, by proportioning the strength of the defences, to the advantage and disadventage of the situation: for the fortifications to the south are much the strongest, those opposite to the rice-fields, something weaker; and the part that is skirted by the lake, is defended only by a slender wall: a deep ditch fronting the former, a plain platform along the latter; a false braye, and a stone wall 18 feet high, with round towers, on, and between the angles, form the defences to the land: nor are these all, for parallel to the south, cast, and north sides of these outward works, are others of the same kind, repeated within them, and these joining to the slender wall, which runs to the west along the lake, form a second enclosure of fortification.

Indian Fortification. The entrance into an Indian fortification is through a large and complicated pile of buildings, projecting in the form of a parallelogram from a main rampart: and if the city has two walls, it projects beyond them both; this building consists of several continued terraces, which are of the same height as the main rampart, and communicate with it; the inward walls of these terraces, form the sides of an intricate passage about 20 feet broad, which leads by various short turnings at right angles, through the whole pile to the principal gate, that stands in the main rampart.

We have extracted this passage, from the History of the Carnatic, as affording a general outline of Indian fortification. In the same place may be seen, (pag. 320) the following description of a battery, which was built by the English in 1753, and contributed to the preservation of Trichinopoly, when the French attempted to storm that place.

The battery was called Dalton's battery, from an officer of that name, who, when intrusted with the command of the garrison, had convened that part of the gateway which projected beyond the outward wall, into a solid battery, with embrasures; having the part between the two walls, as it stood with its windings and terraces: an interval was likewise left between the backside of the battery and the terrace nearest to it, which lay parallel to each other; so that an enemy who had gained the battery, could not get to the terrace, without descending into the interjacent area, and then mounting the wall of the terrace with scaling-ladders: the battery, however, communicated with the rampart of the outward wall of the city, but being, as that was, only eighteen feet high, it was commanded by the terraces behind it, as well as by the rampart of the inner wall, both of which, were thirty feet high; upon one of the inward cavaliers, south of the gateway, were planted two pieces of cannon, to plunge into the battery, and scour the interval between the two walls, as far as the terraces of the gates; and two other pieces, mounted in the north-west angle of the inward rampart, commanded like manner, both the battery and the interval to the north of the terrace.

Indian Guides. According to the ingenious author of the history of the Carnatic, these men are not to be depended upon. In page 273 he relates, that on the first of April, 1752, at night, a captain of the French, at the head of 400 men, marched out, and, by taking a large circuit, came in at the eastern extremity of the enemy's camp, which he was to enter, beat up, and set fire to. The English troops, from their long inactivity, knew little of the ground about Trichinopoly, that they were obliged to trust to Indian guides; and these being ordered to conduct them out of the reach of the enemy's advanced posts, fell into the other extreme, and led them several miles out of their way, and through such bad roads, that when the morning star appeared, they found themselves between Elumisram and the French rock, two miles from Chundis Saleb's camp, and in the centre of all their posts.

Indian princes and their troops. Their military character may be collected from the following curious account, which is given of a circumstance that occurred in the Tanjore country, when the English obtained a signal victory over the French and Mysoreans, in 1752. The presence of the nabob being thought necessary to facilitate a negociation that was then judgged expedient to undertake, he prepared to march with the English army; but on
The evening he intended to quit the city, his discontented troops assembled in the
outer court of the palace, and clamoring,
declared, that they would not suffer
him to move, unless he had paid their ar-
rears; in vain were arguments used to
convince this rabble, more insolent be-
cause they had never rendered any milita-
tary service, that his going to Tanjore was
the only measure from which they could
hope for a chance of receiving their pay;
their remained inflexible, and threatened
with force, upon which Captain Dalton, a
British officer, sent a messenger to the
commander of Trichinopoly, and ordered
him to move, before he had paid their ar-
dues, of which the British officer sup-
erior army, the prince renounced,
for his evacuations, a total defection of
his army, or by suffering such outrages as
his discontented troops assembled in the
camp, from whence the grenadier compa-
nily immediately marched into the city,
where they were joined by 100 of the pa-
trition of Trichinopoly, and all together
forsaking their way into the palace, they got
the nabob into his palanquin, and escorted
him to the camp, surrounded by 200
Europeans with fixed bayonets; the mal-
ccontents not daring to offer him any out-
ter as he was passing, not on the other
hand, was any injury offered to them;
for notwithstanding such proceedings in
more civilized nations rarely happens, and
are justly esteemed mutiny and treason;
yet in Hindustan they are common acci-
cidents, and arise from such causes as ren-
der difficult to ascertain whether the
prince or his army be most in fault. The
nabob had certainly no money to pay his
soldiers; so far from it, the English
had now for two years furnished all the
expenses of their own troops in the field;
but it is a maxim with every prince in
India, let his wealth be ever so great, to
keep his army in long arrears, for fear they
should desert. This apprehension per-
haps not unjustly entertained of hirelings
collected from every part of a despot's
empire, and insensible of notions of attach-
ment to the prince or cause they serve;
but from hence the soldiery, accustomed
to excuses when dictated by no necessity,
give no credit to those which are made to
them, when there is a real improbability
of satisfying their demands; and a prac-
tice common to most of the princes of
Hindustan, concurs not a little to increase
this mistrust in all who serve them; for
on the one hand, the vain notions in which
they are educated, inspire them with
such a love of outward show, and the
conspiring cliques in which they are
born, renders them so incapable of resist-
ing the lure of folly; and on the other
hand, the frequent revenues of fortune in
this empire, dictate so strongly the nec-
cessity of hoarding resources against the
more calamity, that no expense is more
common than to see a nabob purchasing a
jewel or ornament of great price, at the
time that he is in the greatest distress
for money to answer the necessities of the
government. Hence, instead of being
shocked at the clamors of their soldiery,
they are accustomed to live in expec-
tation of them, and it is a maxim in their
conduct to bear them with patience, un-
less the crowd proceed to violence; but in
order to prevent this, they take care to
attach to their interest some principal of-
cicers, with such a number of the best
troops, as may serve for guards to
check the tumult, which is rarely headed
by a man of distinction. But when his
allies grow desperate by the success of a
superior enemy, the prince atones severely
for this evacuations, by a total defection of
his army, or by suffering such outrages as
the Nabob Mahomed-Aly would in all
probability have been exposed to, had he
not been rescued in the manner we have
described.

Military INDICATIONS. (Index, Fr.) Marshal Saxe very judiciously ob-
serves, that there are indications in war
which every officer should attend to, and
from which deductions and conclusions
may be drawn with some degree of cer-
tainty. A previous knowledge of your
enemy's national character and customs,
will contribute not a little towards the
attainment of this object. Every coun-
try indeed has customs and usages which
are peculiar to itself. Among various in-
dications that we might adduce, let us
suppose these leading ones by which the
intentions of an enemy may be discover-
ed by the garrison of a besieged town. If,
for example, towards the close of day
the troops of loose parties of armed men
should be discovered upon the neighbor-
ing heights which overlook and command
the town, you may remain assured, that
some considerable attack is in agitation.
Small detachments from different corps
are sent forward for this purpose, and the
besieging army is thereby apprised of the
enemy's intentions. We must again empha-
size, that these indications are peculiar to
specious events, and may be explained by
the reflexion of the sun upon the firelocks of an army which may
be discovered by any large
quantity of dust, which is a sure indi-
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some considerable attack is in agitation.
The possessions in this quarter of the globe, or of a brigade, one deputy commissary of ordnance, one engineer, having the rank of an almost the whole length of India from north to south. Head surgeon, one deputy pay-master, and

The army stations in India, with their principal objects, viz.:

**Fort William**, under one major-general commanding at the presidency, who has one aid-de-camp, one head surgeon, one chaplain, one pay-master; and we presume, one brigade-major.

**Calcutta**, under one captain-commandant, who has one brigade-major, and one chaplain.

**Barrackpore**, under one major-general, who commands the station, and has one aid-de-camp, one brigade-major, one chaplain, and one deputy pay-master.

**Dinapore**, under one major-general, who has one aid-de-camp, one brigade-major, one pay-master, one head surgeon, and one chaplain.

**Chunar**, under one major-general officer, who commands the station, and has one aid-de-camp, one brigade-major, one chaplain, and one deputy pay-master, and one chaplain.

**Cawnpore**, under one major-general who commands the station, and who has one secretary and Persian interpreter in the field, one aide-de-camp, one head surgeon, one brigade-major, one deputy pay-master, and one chaplain.

**Dety Gilair**, under one major-general commanding, who has one aide-de-camp, one brigade-major, one surgeon, one chaplain, and one pay-master.

**Hyderabad detachment**, under the command of one lieutenant-colonel, one major of brigade, one deputy commissary of ordnance, one deputy pay-master, and one Persian interpreter.

**Prince of Wales’s Island**, under one captain-commandant, one captain subordinate to him, one lieutenant, who is deputy commodore of ordnance, one paymaster, one engineer, having the rank of lieutenant, one surgeon, and one assistant-surgeon.

The cantonments and garrisons consist of the following:—

**Barrackpore**, where there is one barrack-master.

**Berhampore**, where there is one barrack-master, and one enginner.
INDOSTAN. This word properly spelled Hindustan; from Sans a country, and Hindus the people; usually called India.

INEXPUGNABLE. See IMPREGNABLE.

INFAMOUS behaviour, (infamia, Fr.) a term peculiarly applicable to military life when it is affected by dishonorable conduct. Hence the expression which is used in the Articles of War, relative to insidious infamous behaviour; on conviction of which, an officer is ordered to be cashiered. Infamy may be attached to an officer or soldier in a variety of ways; and some countries are more tenacious than others on this head. Among European nations it has always been deemed infamous and disgraceful to abandon the field of action, or to desert the colors, except in cases of the greatest emergency. In Germany, a mark of infamy was attached to the character of every man that was found guilty of misbehaviour before the enemy. He could not assist at the public functions, nor be present at a court-martial. Many destroyed themselves in consequence of the ignominy they suffered on these occasions. According to the old French salique law, any person who should upbraid another with having fled from the field of battle, and not be able to prove it, was heavily fined.

Among the Romans the punctilious nicety of military fame was carried to a much higher pitch. It was considered as infamous and disgraceful to be taken prisoner, and a Roman soldier was impressed with the idea, that he must either conquer or die in the field. Regularly, the Roman general, was so much influenced by these high sentiments, that when the Carthaginians by whom he had been taken prisoner, sent him to Rome, in order to arrange certain conditions of peace, he deemed himself unworthy to appear in the Senate, notwithstanding that his fellow citizens invited him to the sitting. The advice which he gave his countrymen, and the punishment he suffered on his return to Carthage are well known.

Although these notions have considerably degenerated among the moderns, the military character is nevertheless so far elevated above every other profession in life, that the slightest imputation of cowardice or dishonor is sufficient to affect it.

Among the French the most punctilious nicety is observed; so much so, that the common soldier considers himself superior to the lower orders of mankind, and will resent a blow or a lie with a pertinacity of honor, that puts him upon a level with the most scrupulous duellist. How far this sense of honor ought to be encouraged in the ranks we will not pretend to determine. But we shall scarcely be found fault with, nor the hazard of contradiction, when we assert, that no officer ought to hold a commission in any service, who can either take or give the lie, or receive a blow without resentment.
The military profession is still called service, is manifestly derived from the following account of its derivation. Their leaders of youth, imposing upon the credulity or drunkenness, flagrant breaches of hospitality that because the Spaniards have received nothing we should be unthankful to one element of the moral system particularly so with regard to foot soldiers. Dr. Robertson in the first volume of his History of Charles V., says, "the system of employing the Swiss in the Italian wars, was the occasion of..."
introducing a total innovation in the military custom. The arms and discipline of the Swiss were different from those of other European nations. During their long and violent struggle in defence of their liberties against the house of Austria, whose armies, like those of other Composite princes, consisted chiefly of heavy-armed cavalry, the Swiss found that their poverty, and the small number of gentlemen residing in their country, at that time barren and ill cultivated, put it out of their power to bring into the field any body of horse capable of facing the enemy. Necessity compelled them to use all their confidence in infantry, and in order to render it capable of withstanding the shock of cavalry, they gave the soldiers breast-plates and helmets, as defensive armor, together with long spears, halberds, and heavy swords, as weapons of offence. They formed them into large battalions, ranged in deep and close array, so that they could present on every side a formidable front to the enemy. (See Machiavel's Art of War, b. ii. chap. ii. p. 45.)

The men at arms could make no impression on the solid strength of such a body. It repulsed the Austrians in all their attempts to conquer Switzerland, It broke the Burgundian conduraries, which was scarcely inferior to that of France, either in number or reputation; and when first called to act in Italy, it bore down by its irresistible force, every enemy that attempted to oppose it. Those repeated proofs of the decisive effect of infantry, exhibited on such conspicuous occasions, restored that service to reputation, and gradually re-established the opinion which had been long exploded, of its superior importance in the operations of war. But the glory the Swiss had acquired, having inspired them with such high ideas of their own prowess and consequence, as frequently rendered them mutinous and insolent, the princes who employed them became weary of depending on the caprice of foreign mercenaries, and began to turn their attention towards the improvement of their national infantry.

The German powers having the command of men, whom nature has endowed with that steady courage and persevering strength which form them to be soldiers, soon modelled their troops in such a manner, that they vied with the Swiss both in discipline and valor.

The French monarch, though more slowly, and with greater difficulties, accustomed the impetuous spirit of their people to subordination and discipline; and were not too ready to tender the national infantry respectable, that as early as the reign of Louis XII., several gentlemen of high rank, had a fair opportunity of introducing their ancient ideas, as to descend to enter into their service.

The Spaniards, whose situation made it difficult to employ any other than their national troops in the southern parts of Italy, which was the chief scene of their operations in that country, not only adopted the Swiss discipline, but improved upon it, by instituting a proper number of soldiers, armed with heavy musquets, in their battalions, and thus formed that famous body of infantry, which, during the century and a half, was the admiration and terror of all Europe. The Italian states gradually diminished the number of their cavalry, and, in imitation of their more powerful neighbors, brought the strength of their armies to consist in foot soldiers. From this period the nations of Europe have carried on war with forces more adapted to every species of service, more capable of acting in every country, and better fitted both for conquests, and for preserving them. See Robertson's View of the State of Europe, book I. pages 105 and 107.

Infanterie accompanies, Fr. 3 species of French infantry, which succeeded to the legions that were established under Francis I. in imitation of the Roman legions. This infantry was kept up as late as during the reign of Henry IV., when the whole of the foot establishment was reduced into regiments.

Heavy-armed Infanterie, amongst the ancients, were such as wore a complete suit of armor, and engaged with broad shields and long spears. They were the flower and strength of the German armies, and had the highest rank of military honor.

Light-armed Infanterie, amongst the ancients, were designed for skirmishes, and for fighting at a distance. Their weapons were arrows, darts, or lances.

Light Infantry have only been in use since the year 1656. They have no camp equipage to carry, and their arms and accoutrements are much lighter than the common infantry, or battalion men. Wherever there is light cavalry, there should be light infantry to correspond.

Foreign Infanterie (Infanterie étrangers, Fr.) Foreign troops were taken into pay, during the old monarchy of France, at a very early period. In the reign of Philip the third, several treaties and agreements were severally entered into for this purpose, with John Stuart, king of Scotland, Eric king of Norway, Albert duke of Austria, and many other German princes, and with Humbert duke of Verona.

Philip of Valois likewise made use of foreign troops, and under Louis XI. the Swiss were taken into French pay, since that period and until the revolution, which was accomplished on the 10th of August, 1792, several regiments were maintained under the different denominations of Swiss, German, Italian, Catalan, Scotch, and Irish corps or brigades.

During the present war the same system has been more or less adopted by the British government. Independent
Foreign subsidies, it has been judged expedient to admit foreigners of rank, and we presume, of military merit, within those native limits, from whence heretofore every stranger was jealously excluded. A reference to the official army list will readily point out the corps that come under this description. With respect to the 80th or loyal American, it is necessary to observe that the original principles upon which those battalions were established, have been totally altered. One battalion in particular, instead of being called American, should be named German. For the colonel is a German by birth and education, and the majority of the corps are from that country.

In thus adverting to the 80th regiment, we think it right to explain away an absurd and contradictory opinion, which has prevailed of late years to the prejudice of that gallant corps. It has been called the condemned regiment, from an idle, and unfounded notion, that the different battalions, though forming a considerable part of the British infantry, were excluded from home service, on account of some imputed misconduct. Their uniform good behaviour is a sufficient refutation to the latter supposition; and when we state that at the close of the American war, the battalions of the 60th Janizaries, merely consisting of British subjects, and the body of Janizaries was not sufficiently strong to garrison all the frontier places belonging to the Turkish empire, established in the different provinces, and corps of infantry, whose duty was similar to that of the Janizaries, in camp and garrison. These corps were maintained at the expense of each Beglerbey or principal. Some writers have inconsiderately confused this corps with that of the Janizaries, merely distinguishing it by the name of Capikuli. It differs, however, very materially from them, being superior in the formation of its divisions, more celebrated for the valor of its troops, and in every respect better disciplined. This corps is not upon the same footing as the militia called Capikuli. It is, in general under the direction of the Bachas of the different provinces, the principal object of which is given to those persons who are either the particular friends of the Bachas, or have the means of bribing handsomely for the appointments. This militia does not receive any pay, unless it is actively employed, and its subsistence in that case is drawn from the provinces, much in the same manner as British militia is from the different counties, at the monthly meetings. With regard to its institutions, the principal object of it is to support the Janizaries, and to replace them, when vacancies occur.

The Turkish Infantry and Artillery is generally composed of Azapes, Isarelys, Stemeyes, Lagunays and Musulmans. Count de Marsilly in his État militaire de l'Empire Ottoman, gives the following account of these corps.

The Porte being convinced, that the body of Janizaries was not sufficiently strong to garrison all the frontier places belonging to the Turkish empire, established in the different provinces, and corps of infantry, whose duty was similar to that of the Janizaries, in camp and garrison. These corps were maintained at the expense of each Beglerbey or principal. Some writers have inconsiderately confounded this corps with that of the Janizaries, merely distinguishing it by the name of Capikuli. It differs, however, very materially from them, being superior in the formation of its divisions, more celebrated for the valor of its troops, and in every respect better disciplined.

The foreign infantry, in the service of Great Britain, according to the returns delivered in on the 1st of November 1802, consisted of loyal French, Germans, Castries, Mortemart, Roll, and Dillon; Meuron dito; four dito Dutch, each having a company of artillery attached, and one Dutch dito with a company of pioneers; Lowenstein's corps, which was not completed, and two corps of foreign invalids. Staff to a foreign hospital. There were besides sixteen unattached foreign officers who received full pay, 166 dito on half pay, 54 aged and wounded dito, 46 foreign officers widows, 44 children of foreign officers who died in the king's service. There was also a small corps of ejectees, which were attached to the wagon train, and consisted wholly of foreigners.

The Turkish infantry, (Infanteria Turca, Fr.) is generally composed of regiments that are chosen or select. This body is first divided into two parts called Capikuli and Serratkuli. The former, which is named Capikuli, is subdivided into Janizaries, Agemolans, Topays, Gebegys and Sakkas. The Janizaries constitute the military school, in which young men, destined for the corps of Janizaries, are educated; The Topays are the rank and file; the Gebegys are armorers, and the Sakkas are water carriers.

The Serratkuli infantry is composed of Azapes, Isarelys, Stemeyes, Lagunays and Musulmans. Count de Marsilly in his État militaire de l'Empire Ottoman, gives the following account of these corps.

The Serratkuli infantry is divided into Azapes, Isarelys, Stemeyes, Lagunays, and Musulmans.

The number of the Azapes is not particularly fixed. They consist chiefly of independent companies, which are distributed among the different departments of the Turkish empire. They are distinguished among their own people by the different names of the week, and are divided into as many osas or companies. These osas or companies are indiscriminately subject to the orders of two general officers, viz. the Aqa, or Aqai, who is in command in chief of the Azapes, and the Azape-Çalay by their com burden.
who keeps a register of their names and countries. They obey subordinate officers called derys, oda-baschys, and baikars. There are ten derys attached to each company, who may be properly considered as corporals, entrusted with the discipline of the soldiers. The baikars are the standard-bearers. Each standard belonging to an oda or company consists of a horse's tail, which hangs from the end of a lance, that is capped with a gilt ball. The officers are moreover directed to superintend the messes belonging to their different companies.

It is usual for each azape to be a native of the province, in which he serves, and he is generally clothed after the fashion of the country. At Buda the azapes were ordered to be dressed in the Hungarian manner, which consisted in a cloth cap bordered with skin, a sabre, an arquebus or fustil; which similarity of dress and accoutrement has frequently confounded the azapes with Hungarian Christians.

The isarelys are chiefly employed in the frontier towns, and have charge of the artillery in the room of the topeys or cannoniers. They are under the direction and command of an artillery officer, who is sent from Constantinople and is called Tepcs-Agasi.

Their number is uncertain, and they are not subdivided, as their employment depends wholly upon the quality and quantity of artillery that are used. One man is attached to small field pieces, and two to those of larger calibre; so that instead of being distributed by companies, they are ordered upon duty according to the nature and number of the ordnance. They have no other officer, besides the one already mentioned, attached to them, which officer is subordinate to the Bacha of the province, as their service does not depend upon the quality and number of the ordnance.

The Seimcrys are the least respected body belonging to this national militia, being composed wholly of peasants, that are called the poor and destitute like the supplementary militia of Great Britain, in cases of extreme necessity. They are only in fact considered as a mass of people serving to increase the number of troops, without having any credit for military skill or valor. They consist of Turks, Greeks, and even of Roman Catholics, who enrol themselves in order to be exempted from the annual tax.

Their only chief or commanding officer, is the bacha of the province. The seimcrys belonging to Natolia are all Mahumetans. They are called Feissis, or men on foot, and although they do not receive any pay, except when enrolled, they are nevertheless divided into Oda or standard-bearers, which are similar to the Odes, and they obey their Seimcrys-Boluk-Baschys, who commands sixty men that are attached to his standard, and to the Extractor, who escorts the standard, which is generally red and of a moderate size.

The seimcrys usually do duty in camp and garrison. For although the Turks place little confidence in Christians, yet there have been instances wherein their services have been required on very important occasions. At the siege of Vienna they employed Christian troops, and increased their infantry by those means very considerably; they even formed a reserve from troops of that description, and their conduct was such, that they acquired a marked reputation by the obstinate resistance which they made at Colenberg.

The azapes, however, are in general ill-armed; having only rough polished sabres, and very indifferent arquebuses with locks, or bad fusils of different sizes and consequently of little use in the hands of such men.

The Lagumgys are what we call minions; This body is chiefly composed of Armenians and Christians, out of Greece or Bosnia, who being in the habit of mining, are extremely serviceable in that line, and act under the immediate direction of some old officers called lagumgys-baschys or chiefs of the miners. Some particular privileges are annexed to these appointments.

The Musellims are Christian tributaries, whose duty is to march before the advanced guard of the army, to clear the roads and to construct bridges for the passage of the troops. On this account they are called pioneers.

The bachas of the different Turkish towns pay great attention to these musellims or pioneers. They not only exempt them from all taxes, but even give them lands and freeholds. By a particular privilege which is attached to this corps, only five out of thirty are obliged to do duty on a march, and they are then joined to the carpenters, which renders the service less fatiguing. Their number is not fixed. It depends indeed, more or less, upon the population of the different provinces, and on the extent of land which may be disposed of in their favor.

They are commanded by a bachi-muselim or principal person belonging to the exemptions, whose only duty is to superintend the regular discharge of their functions.

Those, however, belonging to Natolia are subject to the tax or paschis, who superintends the distribution of their subsistence, &c. in the same manner that he does that of the cavalry which is attached to his department.

The only weapon they carry is a hatchet; but the neighboring villages or the public magazines belonging to the artillery, are obliged to supply them with pick-axes and other tools that may be wanted.
in their profession. They are strictly forbidden the use of a sabre or fusil.

Whenever the Turkish army is on its march, the musulmans are obliged to go forward every preceding day, in order to prepare the way for its progress.

During a siege they are frequently attached to the garrison guns, which they work in the best manner they can; and when a town is besieged by the Turks, the musulmans are employed in the trenches, from which duty they derive considerable profit; so much so, that the Janissaries are extremely jealous of them on these occasions. They are, in a word, the most formidable body of infantry which the Turks possess; for the ground-work of every species of attack or defence, and the management of all warlike machines rest upon their exertions.

The infernal. Strada gives a very curious and interesting account of this machine, in his history of the Belgic war. The infernal was tried by the English at Dunkirk and St. Maloes, and by the Dutch and English under King William. It is likewise mentioned by Grose in his history of the English army.

The only time during the present war at which its dreadful powers have been attempted, was in the month of December, 1797, when a conspiracy was formed and emissaries under the direction of one Jackson, sent from London to destroy Bonaparte. It failed as to its immediate objects, but proved by its collateral effects, that the invention is as destructive as the most savage destroyer of the human race could wish.

To infest, infester, Fr. This word is more strictly applicable to places than to things.

To infest a place (infester un lieu) signifies to frequent any particular spot for the evident purpose of doing damage, to create uneasiness and to commit depredations. Thus free-booters or thieves are said to infest places.

Infinitesimals. Modern calculations call, by this name, everything which is so exiguous that it cannot be compared to any other quantity, or which is smaller than any other assignable quantity. The new calculation which has been adopted among geometers respecting quantities that are infinitely small is termed the calculation of infinitesimals.

Infinite. See Hospital.

Influence of example. In a military sense the influence of example is of the greatest consequence. We have already spoken generally on the necessity of good example (see Examples); we think it proper further to observe, that the influence which every action of a commanding officer bears, is of so much importance to the service, as to render it incumbent upon every superior person to consider the effects upon the mind and conduct of an inferior. A circumsstance once occurred, which is frequently quoted. It was briefly this: an officer happening to appear upon the parade without being strictly uniform, was himself irregularly dressed; the latter availed himself of an opportunity to mention the circumstance in a familiar and good-natured manner; upon which the former very shrewdly replied—It is true, sir, that I am not strictly in uniform to-day, but you will be pleased to recollect that the commanding officer's leave. The remark was not amiss, as it conveyed at the same time a sound piece of advice to every inferior officer; but it did not justify the deviation. An admiral, from motives, we conceive, of duty, as well as of principles of economy, was so taciturn at regularity, that rather than appear not strictly correct, he has been known to have a second naval uniform, made of coarse flannel, which he constantly wore on board. Notwithstanding his laconic instance, it is well known, that both in the army and navy, the irregularity of the commanding officer has been frequently used.

Informers. Soldiers who give information of false musters, or of pay illegally detained, are entitled to discharge. See Mutiny Act, sections 27 and 69.

Engineer. An engineer who may possibly called an adept in civil architecture. A person of this description was always employed among the French. He was a skilful and intelligent man, perfectly master of mechanics; by which means he could invent machines for the purpose of increasing propellents, so as either to draw or to raise heavy loads with facility, or to elevate and direct the course of waters.

Engineer of architecture militaire, Fr. An engineer who is perfectly master of military architecture. The term itself points out, that the requisite qualifications are ingenuity, skill, and an apt talent at invention. The French, in former times, made use of the word ingenieur instead of ingenieur; deriving the former from ingenium, which originally signified a machine amongst them, and has since been adopted by us. All warlike machines, such as cannons, &c. were, in fact, called engines, because they were, for the most part, invented by engineers. So that even the word ingenieur, Fr. and engine, belongs to the Latin ingenium, or invention. These machines were, indeed, frequently called in bad Latin ingenium. Hence the etymology of ingenieur. The situation of ingenieur, among the French, has always been deemed extremely honorable. They have always risen to the highest posts in the army, and their skill and judgment have
always been thought indispensably necessary in all the operations of war. We have already pointed out, under the article Engineeur, the outlines of this important character. We only regret, that the limits of our undertaking will not admit of the very sensible observations which are to be found under the head Ingenieur in several French publications.

The French, and after them several other nations, have formed their engineers into select corps; the French call them corps de genie. The Engineer Director, Fr. A responsible person in the old French service, whose duty was to superintend and take charge of a certain number of fortified towns or places, and to transmit a regular account of the actual state of the works, and to represent whatever might appear defective, or stand in need of repair. Ingenieur en Chef, Fr. chief engineer.

It was the business of this officer to superintend the construction of all sorts of military works, having several subordinate engineers under him to assist and put his plans into execution. In order to make some distinction between the man of skill and genius, and the more pretentious knowledge in this great branch of military acquirements, it was usual, during the monarchy of France, to call all engineers that were acknowledged by government, Ingenieur ordinaire du roi, engineers in ordinary to the king.

The usual pay of the French engineers was, from vingt cens or two pounds ten shillings up to one hundred cens or 4l. 20s. English, per month, according to each individual's length of service, peculiar talents, or appointment. Persons were received as engineers by the superintendent of the board of ordnance, after having passed a mathematical examination; and the situation was the more eagerly sought after, inasmuch as it led to the highest military post; as that of marshal of France, to which the celebrated Vauban was promoted.

In 1755, the French engineers were formed into one corps, under the name of the royal corps of artillery and engineers; the principal offices of which corresponded with the secretary of war, and received through him the king's orders.

Necessity has ever paid so much attention to the art of engineering, as France has under all her vicissitudes; and this has been not so much from a natural predilection to that peculiar study, as from a conviction of its utility in all warlike operations, but most especially in sieges. This class of military men was, however, extremely neglected, until the reign of Louis the XIVth. Few ever saw, or were present at above five or six sieges; being either wounded at the beginning, or during the operations of a siege. They seldom, indeed, witnessed the termination of it; and from the want of engineers, the investment of a town or fortified place became tedious, and many lives were unnecessarily lost. Louis the XIVth, by his personal appearance and attention gave fresh life to his army, and instilled into every part of it a spirit of subordination, which had been hitherto unknown. He was actuated by a thorough conviction, that in every species of offensive and defensive operation, the use of artillery, under the guidance of scientific men, was essentially requisite. In no instance however, does the skill of an able engineer appear so much to advantage as in the attack of a fortified place. This the king witnessed himself, and on that account he considerably increased the number of engineers. Persons of the first distinction became candidates for situations in that honorable body.

Whenever there was a deficiency during a siege of subordinate engineers or ingenieurs en second, it was usual among the French to select lieutenants or sub-lieutenants from the different infantry corps to superintend the works, and to see that the workmen did their duty. They received an additional pay of ten cens, or one pound five shillings per month, in consideration of this extra service, and their being selected in this manner was a sure step to the rank and emoluments of an engineer. It has been very justly observed by a French writer, that every infantry officer should be acquainted with field fortifications at least; for a thousand instances occur, in which the immediate assistance of an engineer is required, and to which in actual service, it is impossible for the regularly bred officer of that establishment to pay personal attention. We allude among other cases, to the temporary defence of outposts, to the laying and springing of fougasses, &c.

Before the revolution, the frontier towns and other fortified places belonging to France were under the direction of 350 engineers, called ingenieurs du roi, who were subordinate to one director general.

All instructions relative to the fortifications passed through the latter officer to the king.

All engineers were subject to the orders that the commanding general thought proper to issue, with respect to the attack or defence of places, the construction of works, &c., and they were further directed to see, that all the necessary implements for a siege were duly provided. They gave in a weekly report to the director general of the progress and state of the works, and had authority to draw upon the treasury for what sums were wanted to pay the contractors. Every engineer was particularly enjoined to see that the contractors furnished good materials.

The English are so called by the natives of Bengal; they are frequently called Feringhees, that is strangers, Wallagers, which includes the country. Americans are called Nias-Feringhees, or new strangers, or foreigners.
INHIBITION, See Embargo.

INN-HOLDERS. In England, persons who have a licence to enable them to sell spirituous liquors, beer, &c., and who are obliged by the conditions specified in that license, to provide victuals and beer for military men, under certain restrictions. See Whand 3d Geo. III. Cap. 27. Art. XLI XLI. XLIII.

INIMICAL, hostile.

INLISTING, the act of engaging soldiers, to serve either in the cavalry, infantry, or artillery. For the regulations respecting the enlisting soldiers, see Enlisting.

INNORDER, Pr. See Inn-keepers.

INQUIRY. See Courts of Inquisition.

INSIDE guard, a guard with the broad sword, to secure the face and front of the body, from a cut made at the inside of the position above the wrist. See Broadsword.

INSPECTEUR, Pr. Inspector. Military inspectors were originally instituted among the French, after the peace of Aix-la-Chapelle in 1668. Two persons at that epoch occupied this important situation; one being called inspector general of cavalry, and the other inspector general of infantry. Louis XIV., under whom France assumed over the rest of Europe a preponderance of military character, increased the number of inspectors, and ordered them to be distributed in the several departments for the purpose of reviewing the troops every month, and transmitting to him a regular statement of their effective force, &c.

It was the duty of these inspectors to examine minutely at the commencement of every month the state of each regiment, to look at the books belonging to the several companies, and to mark out such men as did not appear fit for the service. Each inspector had a separate dwelling-house allotted to him in the garrison town of his department, and he had the power, on giving previous notice to the governor, of ordering the men under arms. A brigade major delivered to him every evening the orders of the day.

Inspectors general of this description ranked with the army, without bearing any direct commission, and in time of war, they were acknowledged as general officers, brigadiers, or colonels.

Their inspection did not extend to the troops of the household, the French, or Swiss guards, nor to the regiment de foot infanterie. The artillery were also out of their superintendence.

Previous to the French revolution, there were eleven inspectors of infantry, and eleven of cavalry attached to the French army. There was likewise one inspector general of infantry, and one inspector general of cavalry.

INSPECTEUR de construction, Pr. an officer in the French army, in whose presence all plans and profiles for fortification, &c., were drawn, before any work could be undertaken. An accurate estimate was made of the wood which would be required to complete it. It was likewise a part of his duty to point out to the carpenters the precise method by which ground, plans, and elevations, forts, batteries, and bridges, &c., were to be conducted. It was his business, in a word, to attend to the construction and repair of every part of a fortification.

INSPECTING officer of a district, a responsible character, selected from the line, who is nominated by the war-office, to superintend the troops, stations, and recruiting parties, within the limits of his station.

Field officers of districts may order detachment courts-martial, to be composed of the recruiting officers in their districts, in the usual summer and ranks, and they may approve of such court martial, and to direct the punishment awarded thereby to be executed, mitigated or remitted, as they shall think expedient.

They are to receive orders from the adjutant general respecting the nature of their returns; and all returns and reports are to come to the inspector general through them. Each district field officer in the British service has an allowance of ten shillings a day, in addition to the full pay of his respective regimental rank, and he is to be reimbursed for the actual expense he incurs for stationary and postage of letters; which charge must be accompanied by a certificate upon honor.

Each district field officer is allowed to appoint a subaltern officer (not employed upon the recruiting service) to act as adjutant in the district. The pay or allowance of such subaltern is three shillings a day in addition to his full regimental pay; he is also authorised to nominate two sergeants, with the additional pay of sixpence each, one to act as sergeant major, and the other as clerk to the district.

Each field officer may moreover give directions to the hospital mate, who is placed under his orders, to examine the recruits when brought for inspection, and to give such medical assistance as may be in his power, to the several recruiting parties in the district he belongs to.

When colonels of regiments take upon themselves the whole direction of the recruiting service for their own corps, they must conform to the regulations which require returns to be made to the inspector general of the recruiting service; and they must instruct their officers to send weekly returns to the recruiting field officer, in whose district they are stationed, of all the casualties that have occurred.

INSPECTION, a strict examination,
a close survey. It likewise signifies superintendence. In a military sense it admits of both interpretations, and may be considered under two specific heads, each of which branches out into a variety of general, regimental, and company duties.

_A general inspection_ is made annually by the reviewing generals of districts.

A regimental inspection is made once a month by the commanding officer. The clothing, the necessaries, arms, and accoutrements belonging to the different companies are examined by the lieutenant colonel or major of the corps. Specific returns are made by the officers commanding troops or companies, by whom the debts and credits of the men, which have been made up and accounted for on the 24th day in each month, in infantry regiments, and on the 24th day in each second month in cavalry corps, are exhibited for examination at head quarters. This forms the groundwork or basis of the general inspection, at which the troop or company book should always be produced.

_Private inspection of companies_ is the first step towards the other two, and ought to be made every Monday morning, by each officer commanding a troop or company, or by his subaltern. Short inspection of necessaries is an examination of the different articles which every soldier is directed to have in good repair. The regular or established proportion of necessaries that each soldier of cavalry and infantry is to be in possession of on the 24th day of each month, to entitle him to receive the balance that may be due to him, consists of the following articles.

_Cavalry._—3 shirts, 2 pair of shoes, 3 pair of stockings, one pair of gaiters, 1 forage cap, 1 saddle-bag, one pair of canvas, or woollen over-hose, 1 canvas, or woollen frock or jacket, 1 stock, 1 black-ball, 2 brushes, 1 curry-comb and brush, 1 mane comb and spunge, 1 horse-pricker. 

_Infantry._—3 shirts, 2 pair of shoes, 2 pair of stockings, or 2 pair of socks, 1 pair of gaiters, 1 forage cap, 1 pack, 1 stock, 1 black-ball, 2 brushes.

_A proper inspection of arms._ Twenty minutes or more before the general parade, every troop or company should be drawn up on its troop or private parade, and each man be narrowly inspected by an officer. When the dress and accoutrements have been looked at, the troop or company standing at open ranks, and with shouldered arms will receive the following words of command from the senior officer.

_Open arms close, or face arms._—The pan and locks will be narrowly inspected. The adjutant general's office.

_Inspectors of cavalry._ An officer whose particular duty is to inspect all cavalry regiments, to report the state of the horses, and to receive specific accounts from the different corps of their actual state; he communicates with the commander in chief, and whenever a cavalry regiment is ordered to be disbanded, it must be looked at by the inspector general, before it is finally broken.

_Inspectors of the recruiting service._ An officer of rank through whom the field officers of districts, and colonels of regiments (when they personally manage the recruiting service of their own corps) transmit their several returns to the adjutant general's office.

_Inspectors of clothing._ These inspectors, or the inspectors for the time being, are directed to view and compare with the sealed patterns, the clothing of the several regiments, as soon as it shall be received, and if the said clothing can be formed into a proper shape, they are authorized to grant two certificates of their view and approval thereof; one of which is to be delivered to the clothier, and another to be delivered to the inspector, or the head quarters of the corps, and the other to be lodged with the general clothing board, as the necessary voucher for passing the assignment of the allowance for the said clothing.

All clothing must be viewed, and certificates be signed by both inspectors, except in cases where the absence of one of them shall be unavoidable, in which case
cases the cause of such absence is to be stated to the inspector, in his certificate of the view of the clothing.

Inspectors of clothing are to follow all instructions which may be transmitted to them from the commander in chief, or the secretary at war.

Inspector of hospitals, the next on the staff to the surgeon general.

INSTALLATION, the act of investing one with a military order.

INSTRUCTION des procès criminel, Fr. A military form or process in criminal matters. In the old French service when troops were in garrison, it was the duty of the town-major to issue out the regular form of proceeding against all officers, sergeants, and soldiers who were accused of crimes or misdemeanors. The majors of corps exercised this function when troops were encamped. There was a specific form, subject only to a few alterations with respect to terms and expressions, by which all sorts of military crimes were investigated. Desertion was the chief and most prevalent crime among French soldiers. It became the peculiar business of the major, whether in garrison or in the field, to explain and bring forward every thing that might establish the truth of the accusation; and he acted on this occasion, as an attorney general does in civil matters, with this difference, that the latter explained the grounds of his indictment before a judge, whereas the former not only exposed the nature of the case, but drew his own conclusions, and bounded his verdict.

Those officers who may be disposed to enter more largely into the subject of military law, may be satisfied by perusing Le Code Militaire, ou deuxième volume du service de l'Infanterie, page 123; and we refer all British officers in general to M. Tytler's late publication on English military law.

Major M'Comb of the United States engineers has published a very judicious and concise treatise adapted to the military service of the Union; and it is adopted by the war office.

Military INSTRUMENTS (instruments militaires), Fr. The sound of military instruments the troops belonging to the several armies in Europe, &c. are directed in their various movements.

The instruments which are peculiar to the cavalry of most nations are the trumpet and the cymbal. In France, dragon regiments generally formerly adopted the drum in common with the infantry, they now use the trumpet for garrison, and the bugle for the field service. A certain number of fifers are likewise allowed in foot regiments. Hautboys and clarinets do not form any part of the music which is furnished and paid for by the public. Colonels of corps, however, frequently entertain a band either at their own expense, or out of what is called the stock-gur.
The second instrument is made of wood; it is a sort of pipe or flute with five holes; the Turks call it a surauder. The person who plays this instrument is on horseback, and every bauhaw with three tails is intitled to five.

The sounds which issue from these different instruments would be externally harsh to the ear, were they not in some degree harmonized by the great drum: when the whole is played together, the effect is both martial and pleasant.

In the Hungarians have sometimes indeed different instruments would be extremely harsh to the ear, were they not in some degree harmonized by the great drum: when the whole is played together, the effect is both martial and pleasant.

Surgical instruments directed to be procured for the use of regimental hospitals.

An amputating saw, with dito, 24 curved needles, 2 amputating knives, 1 catlin, 2 tenacuiks, 1 bullet forceps, 1 pair of bone nippers, 2 screw tourniquets, 4 field tourniquets with handle, 2 calico compresses to compress the wounds, 2 slide keys, 1 trephine forceps, 1 elevator, 1 intestinal brush, 1 small instrumental for teeth, to fit trophine handle, 8 scalpels, 1 silver catheter, 1 screw tourniquets, 4 tourniquets with handle, 2 trephines to fit these handles, 1 trephine forceps, 1 elevator, 2 scalpels, 1 bullet forceps, 1 trocar with spring and introducory canula, 1 do. do. and canula for hydrocele, 1 large silver probe, 1 long silver probe, 1 large bone saw.

The instruments are made of wood; it is a sort of pipe or flute with five holes; the Turks call it a surauder. The person who plays this instrument is on horseback, and every bauhaw with three tails is intitled to five.

The person who assembles together in consequence of the general proclamation by the prince Palatine of Hungary, and march to the defence of their frontiers.

The Hungarians have sometimes indeed different instruments would be extremely harsh to the ear, were they not in some degree harmonized by the great drum: when the whole is played together, the effect is both martial and pleasant.

INSURGENT. Fr. See To Insult. INTELLIGENCE. In a military sense may be variously applied, and of course has different significations. No general can be said to be in any degree qualified for the important situation which he holds, unless, like an able minister of state, he be constantly prepared with the requisite means to obtain the best intelligence respecting the movements and the designs of the enemy he is to oppose. On the other hand, it is not possible to conceive a greater crime than that of allowing intelligence to an enemy, and thereby bringing about the overthrow and destruction of a whole army. A French military writer, (to whose work we have the satisfaction of being frequently indebted for much general and useful knowledge) makes the following observations respecting the latter species of intelligence, which he classes under two specific heads.

He justly remarks, that to hold correspondence, or to be in intelligence with an enemy, (lire d'Intelligence avec l'ennemi) is to betray your country. Armies and fortified places are almost always surprised and taken by means of a secret intelligence, which the enemy keeps up as a general means to gain the tendency of the enemy he is to oppose. On the other hand, it is not possible to conceive a greater crime than that of allowing intelligence to an enemy, and thereby bringing about the overthrow and destruction of a whole army. A French military writer, (to whose work we have the satisfaction of being frequently indebted for much general and useful knowledge) makes the following observations respecting the latter species of intelligence, which he classes under two specific heads.

The British fleet which entered the Chesapeake bay, and on the 22 June, 1807, attacked the United States frigate Chesapeake, insulted the nation; they had the baseness to deny it, and to make an apology afterwards; but they did not punish their officers, and afterwards fled from the place of the American military armament.

A garrison town may be taken by storm, under the influence of secret intelligence, in two different ways. The one is when the garrison has been surprised in its garrisons and places, and the other when it is necessary, that an assault should be made by openly storming, by throwing shells and petards, or by stratagem.

The first species of intelligence may be held with a governor who has influence enough to direct the will and actions of the garrison, and when the garrison is disposed towards the governor and the officers that command the troops; with the inhabitants who have under them a place where no garrison is stationed, and lastly with the prevailing faction, which...
there are two parties that govern in a free town.

The other species of intelligence may be procured with a governor who either wants power, or is afraid to tamper with the fidelity of the garrison; with some particular officers, surgeons, or soldiers; with the body of inhabitants who think differently from the armed force that overawes them, or with active and shrewd individuals, who have access to the ruling party, and can skilfully combine affected loyalty with secret disaffection.

There is not, however, in human nature perhaps a more insidious, or a more dangerous ground to tread on than that of secret intelligence; nor are the faculties of the mind ever so much put to the test, as when it is necessary to listen to the report of an individual, who whilst he is betraying one side, may be equally disposed to dupe the other. A wise general will consequently hear everything, and say nothing; and a wise man, let his secret wishes be what they may, will warily consider whether the person who indicates to him even the possibilities of a plot, any thing that is, or lies between, see that they were supplied according to contract, and with punctuality.

INTERDICTION, any work that

INTERSECT, the point where two lines cross each other. INTERSECT between two lines, the space which separates them when they are drawn up for action, or when they are encamped. This space is generally wide enough to admit the march of another battalion, that is to say, it is equal to the extent of its front when in line. When troops are encamped for the purpose of investing a town or fortified place, the interval is much greater, and seldom or ever lost.

INTERVAL between the line and the camp. This comprehends the space which lies between the camp and the line of entrenchments. It is generally from one hundred and eighty to two hundred times the breadth of the line, so that the different battalions and squadrons which are necessary for the security of the camp may have room to move in, while sufficient ground is left in the rear for troops to pass and repass as occasion may require. The same observations holds good with respect to contravallation.

INTERVALLE du Camp à la ligne, Fr.

To INTERSECT, to secure against the attack of an enemy, by digging a ditch or trench.

To INTERSECT upon. To invade, to make incroachments upon the property or territories of another.

INTERSECT, any work that fortifies a post against the attack of an enemy. The word is generally used to denote a ditch or trench with a parapet.
Intrenchments are sometimes made of fascines, with earth thrown over them, or
shovels, hogsheads, or logs fastened with earth, to cover the men from the enemy's
fire. See RETRENCHMENT.

INTREPIDITY, Fr. See IN-

TREPIDITY.

INTREPIDITY. An unqualified
contempt of death, and indifference
to fortune, as far as it regards personal sa-
ty; a fearless ness of heart and a daring en-
trepize of mind. According to Roche-
forcas it, Intrepidity, especially with re-
gard to military daring, implies a firmness of
character, great confidence of mind, and ex-
traordinary strength of soul. Davout
and supported, or qualities (which are
sometimes natural and sometimes ac-
quainted) then become superior to every
effect of alarm, and are insensible of
perturbations of the heart which the
prospect of imminent danger almost
always engenders. Chevalier Foulani de-
defines it to be a settled contempt of death, a
species of courage which so intoxicates
the mind as to make it leap over the sober
bounds of judgment and discretion; an
enthusiastic impulse which urges us for-
ward and renders danger imperceptible, or,
if discovered, raises our sensations beyond
the least impression of fear.

A general may be said to act with in-
trepidity, when with forces inferior to those
of his enemy, and under all the disadvan-
tages of ground, &c. he hazards a gen-
eral action, attacks his whole force, and
finally defeats him. This hardiness and
enterprise of character not only surprise
your enemy, but likewise create emotions
of wonder. If, on the contrary, a gen-
eral at the head of a small army should be
known to act against another that is su-
perior to him in every point, except that of
talent and military skill, and if by means of
these qualities, the former should be able
maneuvers and well concerted measures,
rather than the latter fruitless and abortive (at
a time and under circumstances, which might
disfigure almost any other general), it is then
fai to conclude, that the conduct of such a
general is the consequence of great military
knowledge; but it cannot, with propriety
be said to be the result of intrepidity; for
it must be evident, that before any very
dangerous step has been taken, most of
the obstacles have been previously mo-
oved or rendered practicable.

An officer, who is under the influ-
ence of that species of intrepidity which
we have described, when he has once got
hold of his enemy, finds it necessary
not to act an action, unless with hesitation,
advance against his enemy, depending
thereon skill and the super-
ior disposition of his line of battle. Full
of resources and with great presence of
mind, he will march forwards and obtain a
victory, not by dint of courage or by the
more favor of fortune, but through judg-
ment, military ingenuity, and great tactical
knowledge. And yet it would be an in-
justice done to the character of such an
officer, were it imagined, that he could
act in this manner without possessing
great intrepidity. We are rather of op-
iion that such a man must have the most
undoubted courage, with the additional
advantage of consummate prudence, fond-
ed upon military knowledge. The in-
trepidity of his soul is calmed by the cooler
judgment of his head; he is aware of
difficulties, but is not disheartened by
them; he never gives up an enterprise,
which, though it may not generate in-
terest or enlightenment, the person
who acts under its immediate influence
cannot be slow in his perceptions, his con-
duct is generally marked by some imprudent
measure, some enterprize that bids defi-
cence to reflexion, and by some atempt
that is as hastily executed as it has been
inconceivably planned. An intrepidity
of this species is seldom found in the first
class of military character; sometimes
indeed, but rarely, it has been accom-
pounded by great prudence and foresight.

In this number may be considered some
ancient and modern heroes, such as Alex-
ander the great, Charles king of Sweden,
Henry IV. of France, Wolfe at Quebec,
Bonaparte and Augustus at Lodi; Beres-
ford, Marmont, and Lannes, at Marengo; Mu-
rat at Eylau; Davoust at Austerlitz;
Soult at Jena; Clapertoe on the Danube,
in 1809; if instances be found in their
histories where prudence and discretion
have been overleapt by an intrepidity
of soul that was too actively directed on cer-
tain occasions, the effect was temporary,
and easy to be traced to a cause which
too powerfully engaged upon their
nature, to be always subject to control.

INVALID properly includes every
soldier that has been wounded, or has
suffered materially in his health, and in conse-
quence of his good conduct, has been recom-
manded to a certain provision for life. Chelsea hospital is the place al-
located for the reception of such objects of
public gratitude and benevolence in Eng-
lund. Before the building of the hotel
of invalids at Paris, all soldiers of the
above descriptions who belonged to the
French army, were distributed among the
frontier towns, and enjoyed a certain al-
lowance for life.

In England, and, as we presume, the
custom still exists under the new order
of things in France, those invalid soldiers
who are reported not wholly incapable of
bearing arms, are occasionally sent into
partitioned places, and do duty with the
regular army.
It is a reproach to the United States that there is yet no provision for the maintenance of those who serve the best part of their lives in its military establishment.

INVALIDE, Fr. See INVALID. INVASION, in war, the entrance or attack of an enemy on the dominions of another.

INVENTAIRE des Effets des Officiers décédés, Fr. Inventory of the effects of deceased officers. As the French regulations on this head were more specific than those expressed in our articles of war, we shall premise the extract from the latter, by the following particulars which were in force during the old government of France.

When governors, commandants of places, staff-officers, commissioners of war, engineers and officers entrusted with the care of artillery, died in their several provinces or allotted quarters, the judges or magistrates belonging to the spot where such deaths occurred, sealed up the effects of the deceased, and took an inventory of their property, without being, in the least, controlled by any species of military authority. On the removal of the seals, the town-major or his adjutant received a specific statement of every thing which appertained to the situation or appointment of the deceased person or persons, which statement was transmitted to government.

The creditors of the deceased preferred a schedule of the debts contracted in each place of residence, before any of the ordinary courts, which debts were discharged out of the personal property that was left. But all other creditors must have recourse to the judge or justice belonging to the precise spot where the deceased resided; applications respecting all debts which exceeded the value of the personal effects were directed to be made through the same channel.

When officers died in a garrison town or upon a march, or when engineers, who had no particular fixed residence, or artillery officers that were upon leave, departed this life, the town-major or all-major of the town or places, where such persons died, fixed their seals upon their effects. An inventory of these effects was afterwards taken, provided they were not claimed by the next heir; in which latter case, all the debts that had been contracted by the deceased in the place where he died, were ordered to be paid by the person who took possession of the property.

Public notice was given by beat of drum, that a military sale would be made, and that the effects of such officer as had been made for these purposes, became the town-major's property.

The produce of the sale was appropriated to the discharge of such debts as had been contracted in the garrison; and the judge or magistrate, whose particular province it was to take cognizance of all cases relating to property, placed his seal upon the remainder, which was deposited in a box. This box was delivered over to the person that had registered the effects and taken notes of the sale; in whose hands it remained until claimed by the widow of the deceased, the residuary legatees, or by any creditors, except those who immediately belonged to the garrison.

When a captain in the French guards died or was killed, his heirs or executors were not obliged to discharge any demands which his company might have had upon him. If the sale of his private property should not be sufficient to defray these debts, the officer who succeeds to the company is bound to make up the remainder, and the soldier's claim has the preference of all other demands. If there was an overplus, it was paid into the hands of the lawful heirs. The soldiers of the company received the moiety of what was due to them in ready money.

On the decease of detachment of the officers belonging to any of the detached companies of invalids, the superior officer or that detachment in which the death or dereliction happened, ordered every article belonging to the royal hospital of invalids to be sold in the presence of the said officers, without deducting the sol in the livre. The produce of this sale was placed to the credit of the detachment; and all other articles belonging to the deceased were disposed of by the town-majors in the manner already mentioned.

The powers which were vested in the town-majors and staff-officers belonging to detached places, were lodged in the hands of the major or all-major of regiments, who, upon the decease of an officer on service, in a place where there was not any staff, took a regular inventory of his effects, &c.

Town-majors were not authorized to put their seals upon the effects of deceased officers belonging to the Swiss regiments, as these had a peculiar military jurisdiction of their own. But other foreign troops in the service of France were entitled to these privileges.

INVENTORY of deceased officers effects, &c. In the British army, when any commissioned officer happens to die or is killed on service, it is directed by the articles of war, that the major of the regiment, or the officer doing the major's duty in his absence, shall immediately secure all his effects or equipage then in camp or quarters; and shall cause the next regimental court-martial to take an inventory thereof, and forthwith transmit the same to the office of our secretary at war, to the end that the executors of such officer may, after payment of his
regimental debts and quarters, and the expenses attending his interment, receive the overplus, if any be, to his or their use.

When any non-commissioned officer or private soldier, happens to die, or is killed on service, the then commanding officer of the troop or company, shall, in the presence of two other commissioned officers, take an account of whatever effects he dies possessed of, above his regimental clothing, arms, and accouterments, and transmit the same to the office of the secretary at war. These effects are to be accounted for and paid to the representatives of such deceased non-commissioned officer or soldier; and in case any of the officers so authorized to take care of the effects of dead officers and soldiers, should, before they have accounted to their representatives for the same, have occasion to leave the regiment by preferment or otherwise, they are ordered before they be permitted to quit the same, to deliver the effects, being therein certified, to the commanding officer or of the agent of the regiment, all the effects of such deceased non-commissioned officers and soldiers, in order, that the same may be secured for, and paid to, their respective representatives. See Articles of War, section XIX.

To INVEST a place. (inventur unum place, Fr.) A fortified town or place is said to be invested, when all the avenues leading to it have been seized upon by hostile troops, which are distributed and posted on the principal commands, to prevent any succour from being received by the garrison, and to keep the ground until the rest of the army with the artillery, can arrive to form a regular siege. To invest a place is, in fact, to take preparatory measures for a blockade, or a close siege. In order to do this efficiently, the general in chief of the approaching army must detach a large body of cavalry, together with the different corps of dragoons under the command of a lieutenant-general, for the purpose of regularly investing the town. As secrecy is of the utmost consequence on this occasion, the troops belonging to the detachment must have their march so managed as to create an alarm and of distress in some other quarter, by deviating from the road which leads directly to the proposed object of attack. The general, indeed, would act wisely, by giving written sealed orders to the commanding officer, with strict instructions, that until the detachment should have reached a certain spot, and then only in the presence of some particular persons, by which means his real designs may be concealed. Sometimes a place is partially invested, for the sole purpose of diverting the enemy's attention from the real object, and of inducing him to weaken the garrison, by detaching it to different quarters. Thus in 1719, the allied army suddenly appeared before the town of Ypres, and by threatening to besiege it, caused so many troops to be detached from Tournay to its relief, that the latter place, which was the real object of attack, and was one of the strongest towns in the Low Countries, afforded little or no resistance.

It is sometimes prudent to harass and perplex the enemy that may be in the neighborhood of the town which you propose to attack, by perpetually driving in his out-posts, &c, and by forcing him to retire from the different avenues and commanding grounds; when the various objects, which are to facilitate the approach of the besieging army, have been accomplished, the lieutenant-general to whom the investment of the town is entrusted, must procure faithful and intelligent guides, advance by forced marches, hit as little as possible, and then only for the purpose of refreshing his men. He must studiously preserve the secret of his expedition, until he gets so near to the town, that the object of his approach becomes manifest and unequivocal.

When he arrives within one day's march of the town, he must detach from his main body two or three parties of horse, (each party to be stronger than the garrison of the place) which must be in ambush in the neighborhood, for the purpose of carrying off cattle, or of making prisoners. The instant he reaches the town, he must seize upon all the leading avenues, and draw his army up on some advantageous ground. He then goes out to reconnoitre, and to discover the most likely places by which succours might be conveyed into the town. He must have the precaution to post a strong guard in each of these places.

His next business will be to send out small scouting parties, in order to obtain correct intelligence respecting the enemy's movements. Every outlet is blocked up by some dragoons, for the purpose of hemming in the garrison as close as possible. He makes it his study moreover to acquire personal information by examining the prisoners, with regard to the nature of the country, the different roads, rivulets, points of enfilade, avenues, strong buildings, or commanding heights in the neighborhood. He further inquires as to the strength of the garrison, and the number of officers; whether the governor suspects that a regular siege is intended; whether he expects succours, supplies of stores and ammunition, and from what quarter he is to be furnished; finally, whether the fortifications be in good repair, and the place equal to a defence.

At night he sends out advanced parties, with directions to bioac within musquet shot of the town, and takes especial care always to post strong parties in those places and avenues by which succours and supplies might be easily conveyed to the garrison. He has likewise the precaution to have different small guards, or out-lying and in-lying pickets, both in his front and rear, to prevent surprises.
On these occasions the detachments are formed, half on foot and half mounted; those on foot constantly remaining at their horses' heads, bridle in hand. These detachments are on the alert during the whole of the night, and only one half of the number is suffered to rest during the day. Whenever the commanding officer has received intelligence of the approach of a body of troops to relieve the garrison, he must make his dispositions in such a manner as to give them battle, before they get sufficiently near to throw themselves into the town in scattered and divided parties. Great caution, however, must be observed under these circumstances, not to advance too far, lest it should only prove a feint on the enemy's part, in order to induce him to weaken some of his posts; and by taking advantage of their absence, to throw some succours into the town.

As the principal, indeed the only object which the lieutenant-general can have, is to prevent any assistance being given to the garrison, whilst he invests the place, he must always be on horseback; he must incessantly visit the different posts, thoroughly reconnoitre the country, and minutely examine those quarters, through which succours or supplies might be conveyed to the garrison, or which offer advantageous points for his own troops to occupy. During the investment of the town, it will be his duty to collect all the intelligence and information he can, respecting the state of the works and the adjacent points, in order to communicate fully with the general in chief, when he brings up the besieging army, and to put him in full possession of every thing, which may facilitate the object of his enterprise.

The chief engineers should always accompany the lieutenant-general who is entrusted with the investing of a town, in order to get the necessary knowledge of the place before hand, and to understand how the lines of circumvallation, &c. should be drawn, three or four days before the main army arrives; they should moreover make several rounds for the purpose of reconnoitting. These measures will conduct a great deal towards a wise and effectual method of investing the place. To accomplish these ends, a correct sketch of the town must be procured. This plan must be reduced, and a rough sketch taken of every thing within half a league of the circumference of the town; after which a small chart may be drawn of the lines, &c. which are to be made for the purpose of carrying on the siege. This must be done in concert with the lieutenant-general who ought to know better than any body, what the order of battle will be, how much ground is to be occupied by the different brigades and regiments and what the relative detail of the whole army will require.

From the day on which a town is invested, every thing is thrown into motion. The train of artillery is directed to be brought out with necessary stores and ammunition, and proper carriages, with their drivers, are impressed; every department, in a word, performs its allotted duty, and the point of ordinance, as well as the commissary general's office become subservient to the orders that are issued by the general in chief.

Whilst the necessary instruments are adopted for the close investing of the town, the main army approaches by forced marches, and generally arrives before the place five or six days after it has been invested. The lieutenant-general, or officer commanding the investing army goes out to meet the main body when it is within half a league of the place, and communicates with the general; who, in consequence of the report he makes, gives directions respecting the lines of circumvallation, &c.

For further particulars on this article, see Traité de l'Attaque des Places par la Mer, by Marshal Vauban, &c. p. 67; published by the same author, see page 169, &c. A. P. BelAir, Chief de brigade au corps de génie de la République Française, vol. i, page 60.

INVESTISSEMENT. (A French technical word which is strictly military. The celebrated Vauban has erroneously used investissement to signify the same thing.) The art of investing any town or place in such a manner as to prevent the garrison or inhabitants from receiving succours or provisions.

To INUNDATE, in a military sense, is to overflow any part of a country, in order to prevent an enemy from advancing. Holland is particularly calculated for this species of defence.

INUNDATION. The act of letting water into a country, so that it shall be overflowed to prevent the approach of an enemy.

In the Instruction adressée aux officiers d'infanterie pour tracer et construire toutes sortes d'Ouvrages de Campagne, &c. par A. P. BelAir, Chief de Brigade, may be found some very sensible observations on the means of making inundations to serve military purposes, see page 169, &c. Chapitre Huitieme, Mägers du faire des Inondations. We likewise refer our military readers to the Elements de l'Fortification, published by the same author, see pages, 75, 82, 83, and 84. In page 314 of his Dictionnaire Militaire, some excellent observations upon the same subject, may be seen under the article Architecture des inundations.

JOAK, (fr.) A general massacre of the women and children, which is sometimes performed by the Hindoos, when they find they cannot prevent the enemy from taking the town. When this dreadful and unnatural ceremony is to take place, a spot is selected, which is filled with wood, straw, oil, &c. the victims are encircled, and the whole is set on fire.
the British service, generally signifying to effect the junction of one military body with another. In a more limited sense, it means the accession of an individual voluntarily, or otherwise, to a corps of army. If an officer on being ordered to join, omits to do so wilfully, he is liable to be tried by a general court-martial, or to be permanently suspended by the commander in chief for being absent without leave.

**JOINT Bolts.** See Bolts.

**JOLS, Fr.** Barges so called, are used in Denmark, and sometimes by the Russians.

**JUNCTION, Fr.** See Junction.

**JODAY FERRAPUT, Ind.** A term used in India to signify a slave taken in war.

**JOEAN, Ind.** Friday so called in India.

**JOEU, Fr.** A word of command in the French service answering to aim.

**Coutier en Joue, Fr.** To aim with a musket, or other firearm, which is used in such a manner that the enemy is known to have already taken my aim at him.

**JOES, Fr.** The two sides in the employment of a battery which form the embrasures are so called.

**JOUR, Fr.** The tour of duty which is done in the course of a day and night.

**Etre de Joue, Fr.** To be officer of the day, or to command a body of troops at a siege or otherwise in the capacity of a general officer, &c. The usual time was 24 hours, at the expiration of which another officer undertook the duty, and was relieved by one of his own rank.

**Officer of the day.**

**Ordre du Joue, Fr. Orders.** See General Orders.

**JOURNAL, Fr.** A public record of general orders kept in the French service, and in which every transaction that occurred during a siege is entered by the governor of the town, for the future inspection of a superior authority. The general officer who carried on the siege of a place likewise kept a document of the sort, and minutely dwelt every thing that happened under his command. So that the journal which was kept in this manner was a circumstantial detail of what occurred, day after day, during the attack and defence of a town.

**Journal de l'Armée, Fr.** See Records.

**JOURNEE, Fr.** A term used among the French, to express any particular engagement or battle, as la journée de Marengo, the battle of Marengo. We frequently adopt the word day in the same sense; thus a hard fought day signifies a hard fought battle.

**JOUTE, Fr.** A close fight between two individuals. It likewise means an engagement at sea.

**JOUTER, faire des joutes, Fr.** To run a tilt at one another with lances.

**JUST.** See Just.
its march from one camp to another, or to any particular quarter of destination.

ITMANMADAR, Ind. A superintend-ant, or governor in India.

JUDGES are authorized to take judicial notice of the articles of war.

JUDGE MARTIAL, or Advocate General, the supreme judge in martial law as to the jurisdiction and powers of military courts, in the British system. It is incumbent upon this person, as well as upon his deputies, to be well acquainted with the laws of the land, that they may administer the court or preside when their proceedings are tending to infringe the civil law. He is register of courts-martial, and should take down the evidence in the very words of the witness. He is neither a judge nor a justice to the charge.

JUGE, Fr. A sort of judge or provost marshal. This term was particularly applicable to the interior government of the Swiss guards that were in the service of France. Each regiment of that description had one judge or provost marshal per company, and one superior to the rest who presided over the regiment. The inferior judge was called richier, and the grand or superior judge obter richer. The inferior judges had the examination of petty crimes and offences which they reported to the captain of the company. If the crimes were of a serious or heinous nature, the inferior judges drew up a specific statement of them, and laid the whole before the obter richer, who communicated the circumstance to the colonel. Grounds for a general court-martial were generally established out of the latter report.

JUGG, Ind. An Indian sacrifice.

JUGGUT GROW, Ind. An Indian term which signifies guardian of mankind.

JUMBAUN, Ind. In Indian music, means, shake.

JUMBOO DEEP, Ind. A wood particularly used to signify India; it is derived from jumbo or jumbok, a jackal, and deep, any large portion of land which is surrounded by the sea.

JUMBOO DEER, Ind. The inhabitants of India were so called before the introduction of the Tartar governments.

JUMMAKERCH, Ind. An account, stating the receipt and expenditure of the revenue; that is the gross or general account.

JUNCAN, Ind. A toll or duty on everything that passes.

JUNGLE, An Indian term for a wood, or woody country. It likewise means high grass, reeds, or thickets.

JURISDICTION. Legal authority, extent or power. Officers not being liable to be tried by garrison or regimental courts-martial, may appear from the jurisdiction of such courts; as may non-commissioned officers and soldiers in cases where their pay is concerned.

JUST. A sportive combat on horseback, man against man, armed with lances; called also justés, tilt, tournament, &c.

JUSTICES. Military men are, in many instances, under the necessity of applying to justices in order to execute their several orders and instructions without infringing upon the civil authorities; and justices on their side are bound to aid and assist the military in conformity to established laws and regulations.

Military Justices. (Justice Militaire, Fr.) That species of justice which prevails in the army, and corresponds with the articles of War.

K

KABBADE or CARADE, Fr. A military dress which is worn by the modern Greeks. According to Tietze, it derives its name from Cabades, a Persian king. Codinus, on the other hand, asserts, that the Greeks in Constantinople adopted it in imitation of the Assyrians. Others again maintain, that it owes its appellation to the resemblance which it bears to a Greek letter. Father Goar, the author, very justly ridicules this etymology. We are, however, authorized to say, that be the derivation of the word what it may, the dress itself consists of a short jacket which was worn underneath another. It had not any folds, but sat close to the body, being buttoned with large buttons, and reaching down to the calves of the legs. It was fitted round the edges, and was usually worn with a girdle; such is the description which Father Goar has given of the kabbades in his notes upon Codinus. He concludes by observing, that in his opinion it is what the Romans called sagum, and the modern Greeks afterwards corrupted into kabadk.

KAK TOWDA, Ind. Fine mould beat strongly in between two walls, for the purpose of shooting arrows into when the walls are taken away.

KALE, Ind. An Hindoo deity the genius of evil, the infernal god, to whom human beings are sacrificed.

KALLAT or KELAUT, Ind. A dress which is given to any person invested with a new office.

KALMUCKS, (Kalmouques, Fr.) This word is generally written Calmucks. They are wandering tribes of Tartars, who inhabit the parts north of the Caspian sea. There are generally some regiments of them attached to the Russian armies in common with the Cossacks. They are armed with a lance iron pointed about six feet long, and carry a bow with
a quiver upon their backs, containing ten arrows. They never serve on foot, and are only forthcoming by name.

KALSA, *Ind.* The treasury.

KALSA CUTFCHERRY, *Ind.* The room of business, where the business of the army is transacted; and all matters of litigation on that branch of service is determined.

Khan, an officer in Persia, who is invested with the same powers that are entrusted to an European governor.

KANAVUS, *Ind.* A term used in India, to express the walls of a canvas tent.

KATAA, the Indian name for China.

KATIK, an Indian month, in which some measure coincides with our month of October.

KAULUVAHALLIE, the Indian term for message.

KECHERKLECHI, guards attached to the person of the king of Persia; they are armed with a musquet of extraordinary size and calibre. They were raised and formed into a regular corps the middle of the last century.

KEELS, the long boats in which the Saxons successfully invaded England were so called.

KEEP, in ancient military history, a kind of strong tower which was built in the centre of a castle or fort, to which the besieged retreated and made their last efforts of defence. Of this description is the keep of Windsor Castle.

Kens KEEP, a fort built by King Henry II. in the interior part of Dover castle is so called.

To KEEP off, in a military sense, is either to deter your enemy from approaching close to the lines or fortifications by inducing him to suspect a superior force, an ambuscade, or a mine, or by openly palling his advanced posts in such a manner as to beat him in detail. Infantry may keep off cavalry by hot firing, or by a compact intrepid direction of the bayonet.

To KEEP ap, in military movements, is the preservation of that regular pace, by which a line or column, on a march, or in maneuvering, advances towards any given point without any charms or fluctuations. When a regiment marches by files, it is almost impossible for the rear to keep up. On this account, divisions, sub-divisions, and even sections, are best calculated to preserve a regular depth and continuity of march.

To KEEP ap, likewise signifies to attend to the interior management and discipline of a corps, so as to prevent the least deviation from established rules and regulations. Thus commanding officers are enjoined to keep up good order and discipline, who, whilst absent or present, provide against the least insubordination, &c.

To KEEP up heavy fire, is to play with heavy ordnance against a fortified place, or body of men, by a calm and well-directed succession of shot. In musquetry firing, officers commanding battalions, divisions, or platoons, should be very exact in giving the word in order to keep up the different firings.

KEERAY, *Ind.* expenses, charges.

KENT. It is the peculiar duty of the county lieutenant, or of three deputy lieutenants belonging to this English county, to issue orders to the chief constables of the several hundreds to send out precepts to the churchwardens or overseers to return a list of men liable to serve.

The churchwardens and overseers of the county of Kent, by act of parliament, invested with the powers of constables, to put in force the militia acts. KENTASSI, a range of mountains in Tibet, in which are the sources of the Ganges. This river, formed from several sources, passes successively two great lakes, and flows to the west, until the opposition of a part of the Indian Cauca- sus turns it to the south, and having completed in those various directions a course of two hundred leagues, enters India by forcing its passage through the mountains of the frontier.

KERANA, a long trumpet, similar in shape and size to the speaking trumpet. The Persians use it whenever they wish to make any extraordinary noise, and they frequently blow it with hautboys, kettle drums and other instruments at sunset, and two hours after midnight.

KEBERKLECHI, guards attached to the person of the king of Persia; they are armed with a musquet of extraordinary size and calibre. They were raised and formed into a regular corps the middle of the last century.

KERNS, a vessel used to boil com. This river, formed from several sources, passes successively two great lakes, and flows to the west, until the opposition of a part of the Indian Cauca- sus turns it to the south, and having completed in those various directions a course of two hundred leagues, enters India by forcing its passage through the mountains of the frontier.

KERI, an inferior officer under the zamindar, who collects from the villages, and keeps the accounts.

KERN, *Irish.* A soldier. The Irish infantry were formerly distinguished by this appellation. The men in these days were armed with a sword, and a dart or javelin, which was tied to a small cord, so that after they had thrown it at the enemy, they could instantly recover it, and use it in any way they thought proper. The javelin was called dorn, which is also the Irish for Kelle.

KEELF, *Ind.* One of the two seasons into which the year is divided in India.

KERIMCHARRY, *Ind.* An inferior officer under the zamindar, who collects from the villages, and keeps the accounts.

KERN, *Irish.* A soldier. The Irish infantry were formerly distinguished by this appellation. The men in these days were armed with a sword, and a dart or javelin, which was tied to a small cord, so that after they had thrown it at the enemy, they could instantly recover it, and use it in any way they thought proper. The javelin was called dorn, which is also the Irish for Kelle.

KERU, *Ind.* A village or parish.

KETTLE, a vessel used to boil com for fire-works.

KETTLE-DRUMS. See DRUMS.

KETTLE-DRUM. A four wheel carriage which is drawn by four horses, and is used exclusively by the British artillery as a prance.

The entrance flag is planted on the fore part, and the drummer with two kettle drums is seated, as in a chair of state, on the back part. This cart is finely engraved and richly gilt. It has not been in the field since the year 1741, when the King was present. It is kept in the tower.

KEYS, in a general sense, are instruments with which locks are opened. KEYS, in artillery carried may be considered under three specific heads, viz.
KIN

Forelock Keys, which serve to pass through the lower end of bolts, in order to fasten them.

Spring Keys may be used in the same manner, but are differently made, for instead of being of one single piece, they are of two, like two springs laid one over the other. When they are put into eye-bolts, they are pinched together at the ends, and when they are in, they open again; so that the motion of the carriage cannot disturb or shake them out. Spring keys are peculiarly useful in travelling carriages.

Keys with chains and staples fixed on the side pieces of a carriage or mortar bed. They serve to fasten the cap squares by passing through the eyes of the eye-bolts, with the connecting chains.

Key stone, in architecture, is the middle stone of an arch, by which the sweep of the arch is bound together.

KEY. See QUART.

Keyserlucks, or imperial keys, the Austrian troops are frequently called so. The term was indeed common among the British soldiers, when they did duty together, and invaded France in 1794. It is derived from Kaiser, from Caesar, which in German, signifies emperor.

Khan, Ind. signifies lord or chiefman. This title was given by the king of Delhi, for which it is supposed, the person was loved of God; it was a title assumed by the regular army, they preserve their

Kidea. Ind. the fortified city, which is four coss or eight English miles in length and breadth, and not so much as eight circuit.

Khoda, Ind. Gol. Khan; signifies lord or chieftain. Which the authority they have received is captain general of the British army, the primary source from which all appointments in it are derived, and the last resort of naval and military jurisdiction. With him, as principal magistrate in the state, and head of the executive power, all the arrangements of the British army finally rest, as from him they primarily issued. From him all the executive forces derive energy and effect, and when war has been declared, to him only does the army look for the immediate application and general exercise of its powers, through the medium of the ministers he appoints, who are responsible to parliament for the manner in which the authority they have received has been executed.

British king is likewise supreme head of the militia, and has the power of appointing or dismissing lieutenants of counties. This king may likewise order three deputy lieutenants to act, when the lieutenant is abroad, or when there is a vacancy. He may join independent companies into a battalion, or incorporate them with any other regiment; and by him only can adjutants be appointed to act in the militia. If they are selected from the regular army, they preserve their rank, and their new commission bears the sign manual. In case of an invasion or rebellion, the British king has the power to order the county lieutenants to embody the militia, and to put it under general officers from the regular army. On these occasions he may issue a proclamation for the meeting of parliament in fourteen days.

The word king is synonymous with monarch, tyrant, despot, and an emperor is only a higher grade of king.

KING at Arms. See Herald.

Kiosque, Fr. a sort of garden pavilion which is open on all sides. It is used in the Levant, particularly in Turkey, and at Constantinople.

Kisselbachs, Ind. soldiers are so called in India.

Kist, Ind. an instalment; the amount of a stated payment.

Kistbundy, the Indian term for a monthly payment or per diem instalment.

Kistbundy, a contract or agreement for the discharge of any debt or obligation by stated payments.
KIT, in laboratory works, a composition made of rosin 6 lb., pitch 6 lb., beeswax 6 lb. and tallow 1 lb. used for the last covering of casks. In order to apply it properly, it must be first broken into small pieces, and put into an iron pot over the fire, where it must be kept stirring about until it be thoroughly dissolved. When rendered very hot and completely liquid, it may be used.

KNUTS, or rather a horseman, from the Latin, military character in Persia, who has the small pieces, and put into an iron pot over the fire, where it must be kept stirred about until it be thoroughly dissolved. When rendered very hot and completely liquid, it may be used.

KNAPSACK, a rough leather or canvas bag, which is strapped to an infantry soldier's back when he marches, and which contains his necessaries. Square knapsacks are supposed to be most convenient. They should be made with a division to hold the shoes, blacking-balls and brushes, separate from the linen. White goat skins are sometimes used, but we do not conceive them to be equal to the painted canvas ones. Soldiers are put under stoppages for the payment of their knapsacks, which, after five years, become their property.

KNOT, the wing or epaulette, which was originally derived from the German and Dutch kost or knuht, signifies a servant, in which sense it is applied when we speak of the knight of a shire; it likewise means a military man, or rather a horseman, from the Latin eques, a soldier or horseman; knights of this description having been either the king's domestic servants or of his life guards.

In common law they are called militis, usually holding lands under the feudal tenure by knight's service, to serve the king in his wars.

KNOUT, or rather a horseman, from the Latin, military character in Persia, who has the small pieces, and put into an iron pot over the fire, where it must be kept stirred about until it be thoroughly dissolved. When rendered very hot and completely liquid, it may be used.

KUOLIOO, Ind., the cocoa tree.

KOONAR, an Indian month, partly coincides with our month of September.

KOONCHY, Ind., a measure of about eight handfuls.

KOONWUR, Ind., prince, highness.

KOOREISH, Ind., an Arabian tribe.

KORTCHI-BACHI, the chief or commanding officer of the Kortchis. In former times he was the first military character in Persia, at present he is only the second in command. He never leaves the court except upon extraordinary occasions, when his presence is required at the army. This, however, rarely happens, as the king is obliged to furnish him with an household service of plate, and to detach a part of his own purses for the protection of his person. The Kortchi Bachi is generally entrusted with one of the chief governments belonging to Persia.

KORTCHIS, a body of Persians, valour, which is stationed along the frontiers of the country. Every individual belonging to this corps, receives fifty crowns for his annual pay. The children of the Kortchis succeed their fathers, with the consent and approbation of the general. The Kortchis are descended from a race of foreigners, who used to live under tents, and were always distinguished for their courage.

KOSACKS, (Kosaaten, Fr.) See Cossacks.

KOTTE, Ind., a warehouse.

KOULEER-AGASI, a distinguished military character in Persia, who has the command of a body of men called Koools. He is usually governor of a considerable province.

KOULIE, a courier, a porter, a slave.

KOURIE, Ind., a sea-shell used as money in many parts of India.

KOULS, a corps of Persian soldiers who rank as a third body among the five that constitute the king's household troops; they mount guard under the portico which stands between the first and second gate leading to the palace. The Kools are men of note and rank; no person can arrive at any considerable post or situation, who has not served among the Kools. Their number is computed at 4,500 men.

KOYAL, Ind., a weighman.

KOYALEE, Ind., lees for weighing.

KRAMA, Ind., wooden sandals which are worn by the natives of India during the wet season.
KUFFEET, Ind. An Indian term for security.

KUF, the Turkish word for slave to the prince. The grand vicer, the bachas, the beigerbeys, and all persons who receive pay or subsistence from situations dependent upon the crown, are so called. This title is in high estimation among the Turkish military, as it authorizes all who are invested with it, to insult, strike and otherways ill use the common people, without being responsible for the most flagrant breach of humanity. Horrid punishment is fixed and fitted only to Mahomedan civilization.

KULLUSTAUNS, Ind. Christians. A sum of money which is annually paid by an inferior governor to his superior.

KUREE, Straights so called in India, through which the Ganges disembogues itself into Hindustan. They are distant from Delhi about 30 leagues, in the longitude of 95, and in the latitude of 32. These straights are believed by the Indians, who look very little abroad, to be the sources of the Ganges; and a rock 15 miles distant from them, bearing some resemblance to the head of a cow, has joined in the same part of the natures, two very important objects of their religion, or the grand image of the animal which they almost venerate as a divinity, and the first appearance of that immense body of holy water which washes away all their sins. It was at these straights that the Indians made some shew of resistance, when the famous Tamerlane invaded India. The field of this victory is the most distant term of that emperor's conquest in India and on the globe. See Dissertation on the establishments made by Mahomedan conquerors in Hindustan, in Orme's History of the Czarist, page 14, 15.

KURKOL, Ind. The advanced guard of a main army.

KURCHI, a militia is so called in Persia. It consists of one body of cavalry, which is composed of the first nobility belonging to the kingdom, and of the lineal descendants of the Turkish conquerors, who placed Ismael Sophi on the throne. They wear a red turban, made of particular stuff, into twelve folds. This turban was originally given them by Ismael, in consideration of their attachment to the religion and family of Ali. The twelve folds are in remembrance of the twelve Imans or Mahomedan preachers who descended in a direct line from Ali, and distinguished themselves so much as to receive the title of Imam. The turban is red, for the purpose of provoking those who wear it to avenge upon the Ottomans, the death of Ali and Hussein, who were murdered by the chief of Sunis, to whose sect the Turks belong. In consequence of their wearing the turban, the Persians are always called by the Turks kurt-chak or red-heads. The noblemen in Persia have adopted the term, with a slight alteration, and call themselves kurt-bashchi or golden-heads. The Kurtchi form a body of nearly eighteen thousand men. The chief commanding officer is called kurt-chaschi. This was formerly the most distinguished situation in the kingdom, and the authority annexed to it was equal to what the constable of France originally possessed. At present his power does not extend beyond the Kurtchis.

KUSH-BASH, Ind. Persons who enjoy lands rent free, upon condition of serving government in a military capacity when called upon. The term also signifies people of boarding circumstances who do not cultivate their lands themselves, but hire servants to do it while they hold other employments.

KUTTY, Ind. Closest.

KUVVAUS, Ind. Servants attending on the King's person.

KUZANA, Ind. A treasury.

LAACK, Ind. One hundred thousand.

LABARMED, a celebrated standard which was used among the Roman emperors, and frequently means any imperial or royal standard. The original called, consisted of a long lance, at the top of which was fixed a stick that crossed it at right angles, and from which hung a piece of red scarlet cloth, that was sometimes ornamented with precious stones. Until the days of Constantine the great, the figure of an eagle was placed upon the top of the labarum; but that prince substituted in its room, a cross, with a cross expressing the name of Jesus.

LABORATORY signifies that place where all sorts of fireworks are prepared, both for actual service, and for pleasure, viz. quick matches, fuses, portfire, grape-shot, case-shot, carcasses, hand-grenades, cartridges, shells filled, and fuses fixed, &c. &c.

Labarum. See MORTAUS.

Ball are of various sorts, shapes and forms: as Clay-balls, are two shot linked together by a strong chain of 8 or 10 inches long; they are more used on board men of war, than in the land service. The famous M. de Witt was the first inventor, about the year 1662.

Light-balls, of which there are several sorts: the best composition is mealed powder 2, sulphur 2, resin 1, turpentine 2, 2, and saltpetre 1. First take tow, and mix and dip it in this composition, till of a proper size, letting the last cost be of mealed powder. Or take thick strong paper, and make a shell the size of the mortar you intend to throw it out of, and till it with a composition of an equal quantity of sulphur, pitch, resin, and mealed powders, which being well mix
None but round carcasses are used at present, the flight of the oblong ones being so uncertain. The composition is: pitch 2, saltpetre 4, sulphur 1, and corned powder 3. When the pitch is melted, the pot is taken off, and the ingredients (well mixed) put in; then the carcass is filled with as much as can be pressed in.

Cartridges are made of various substances, such as paper, parchment, bladders, and flannel. When they are made of paper the bottoms remain in the piece, and accumulate so much, that the priming cannot reach the powder; besides other inconveniences. When they are made of parchment or bladders, the fire shrivels them up, so that they enter into the vent, and become so hard, that the priming iron cannot remove them so as to clear the vent. Nothing has been found hitherto to answer better than flannel, which is the only thing used at present for artillery cartridges of all sorts; because it does not keep fire, and is therefore not liable to accidents in the loading; but, as the dust of powder passes through them, a parchment cover is sometimes made to put over them, which is taken off when used.

The best way of making flannel cartridges, is to boil the flannel in size; and more manageable; for without this precaution cartridges are so pliable, on account of their size and the quantity of powder they contain, that they are put into the piece with much difficulty.

The loading and firing guns with cartridges is done much sooner than with loose powder; and fewer accidents are likely to occur. The heads of cartridges, especially for musketry, are sometimes wrapped in coarse cotton.

In quick firing the shot is fixed to the cartridge by means of a wooden bottom, hollowed on one side so as to receive nearly half the shot, which is fastened to it by two small slips of tin crossing over the shot, and nailed to the bottom; and the cartridge is tied to the other end thereof. They are fixed likewise in the same manner to the bottoms of grape shot, which are used in field pieces.

Grape-shot, in artillery, is a combination of small shot, put into a thick canvas bag, and coured strongly together, so as to form a kind of cylinder, whose diameter is equal to that of the ball which is adapted to the cannon.

To make grape shot, a bag of coarse cloth is made just to hold the bottom which is put in; as many shot are then thrown in as the grape is to contain; and with a strong pack thread the whole is quilted to keep the shot from moving. The bags, when finished, are put into boxes for the purpose of being conveniently carried.

The number of shot in a grape varies according to the service or size of the
guns in sea service is always the number; but by land it is increased to any number or size, from an ounce and a quarter in weight, to four pounds. It is not yet been determined, with any degree of accuracy, what number and size answer best in practice; for it is well known, that they often scatter so much that only a small number takes effect.

Of the three different sorts of cannon which are used for throwing grape-shot, the 3-pounder seems rather the best; especially when two are used, as the effect of two 3-pounders is much greater than that of one 6-pounder. But the 8-inch howitzer, which can be made to throw in from three to five of its charge (from 12 to 20lb, of shot) becomes thereby a very formidable piece, when it can be used for grape-shot; and this is the howitzer used by the French light or horse artillery.

Proper charges for grape-shot have never yet been effectually determined: we can only give our advice from some experiments; that for heavy 6-pounders, 1-3d of the weight of the shot appears to be the best charge of powder; for the light 6-pounders, 1-4th of the weight of the shot; and for howitzers, 1-8th or 1-16th answers very well.

This kind of fire seems not yet to have been enough respected, nor depended on. However, if cannon and howitzers can be made to throw 1-3d or 1-4th, and sometimes half their charge of grape-shot into a space 50 by 12 feet, at 200 and 300 yard distance, and those fired 7 or 8 times in a minute; it surely forms the thickest fire that can be produced from the same piece.

Tin cast-shot, in artillery, is formed by putting a great quantity of small iron shot into a cylindrical tin box, called a canister, that just fills the bore of the gun. Leaden bullets are sometimes used in the same manner; and it must be observed, that whatever number or sizes of the shot are used, they must weigh, with their cases, nearly as much as the shot of the piece. Case shot, formerly, consisted of all kinds of old iron, stones, musquet balls, nails, &c.

Flame-throwers, a kind of lighted torch, used in the artillery upon a match, or the park, &c.

Pits, are cylinders of wood, of different sizes and dimensions, used in the laboratory, to drive the composition of fuses and rockets.

Funnels, are of various sorts, used to pour the powder into shells, and the composition into fuses, and rocket-cases.

Fire-ship, a vessel filled with combustible materials, and fitted with grappling irons, to touch, and set fire to the enemy's ships in battle, &c.

From the bulk head at the fore castle to a bulk head to be raised behind the main chains, on each side and across the ship, at the bulk heads, is fixed, close to the ship's sides, a double row of troughs, a feet distance from each other, with cross troughs quite round, at about 2-1/2 distance; which are mortised into the others. The cross troughs lead to the sides of the ship, to the barrels and to the port holes, to give fire both to the barrels and to the chambers, to blow open the ports; and the side troughs serve to communicate the fire all along the ship and the cross troughs.

The timbers of which the troughs are made, are about 5 inches square; the depth of the troughs, half their thickness; and they are supported by cross pieces at every 2 or 3 yards, nailed to the timbers of the ship, and to the wood work which incloses the fore and main masts. The decks and troughs are all well paved with melted rosin.

On each side of the ship 6 small port holes are cut, from 15 to 19 inches large, the ports opening downwards, and are piece caulked up. Against each port is fixed an iron chamber, which, at the time of firing the ship, blows open the ports, and lets out the fire. At the main and fore chains, on each side, a wooden funnel is fixed over a fire barrel, and comes through a scuttle in the deck, up to the shrouds, to set them on fire. Both funnels and scuttles must be stoppered with plugs, and have sail cloth or canvas nailed close over them, to prevent any accident happening that way by fire, to the combustibles below.

The port holes, funnels, and scuttles, not only serve to give the fire a free passage to the outside and upper parts of the ship, and her rigging, but also for the inward air (otherwise confined) to expand itself, and push through those holes at the time of the combustibles being on fire, and prevent the blowing up of the decks, which otherwise must of course happen, from such a sudden and violent rarefaction of the air as will then be produced.

In the bulk head behind, on each side, is cut a small hole, large enough to receive a trough of the same size of the others; from which, to each side of the ship, lies a leading trough, one end coming through a small port cut through the ship's side, and the other fixing into a communicating trough that lies along the bulk-head, from one side of the ship to the other; and being laid with quick match, at the time of firing either of the
leading troughs, communicates the fire in an instant to the contrary side of the ship; and both sides burn together.

Fire barrels, for a fire-ship, are cylindrical, on account of that shape answering better both for filling them with reeds, and for stowing them between the troughs: their inside diameters are about 2.5 inches, and their length 25. The bottom parts are first filled with double-clipped reeds set on end, and the remainder with fire-barrel composition, which is, corned powder 3, Swedish pitch 12, and tallow 3, well mixed and melted, and then poured over them. When the composition is cold and hard, and when well dipped, and the curtain extended to its full breadth, why it between 2 sticks of about 5.5 feet long, and 1.5 inches square, held close by 2 another men taked of the superfluous composition hanging to it; then immediately sprinkle sawdust on both sides to prevent it from sticking, and the curtain is finished.

Reeds, for a fire-ship, are made up in small bundles of about 12 inches in circumference, cut even at both sides, and tied with two bands each: the longest are 4 feet, and the shortest 2.5; which are all the lengths that are used. One part of them are single dipped, only at one end; the rest are double-dipped. The parts of them are single dipped, only at one end; the rest are double-dipped, 1.6.

Quantity of composition for preparing the stores of a Fire-Ship.

For 8 barrels, corned powder 560lb. pitch 50lb. tallow 60.

For 2 barrels of priming composition, salt-petre 175lb. sulphur 140lb. corned powder 35lb. resin 21lb. oil-pet. 1lb.

For curtains, bavins, reeds, and sulphur to salt them, sulphur 20lb. pitch 50lb. resin 175lb. tallow 50lb. tar 25lb.

Total weight of the composition 377 pounds, equal to C. 26: 3: 26.

Composition allowed for the reeds and barrels, 1-fifth of the whole of the last article, which is equal to 160lb. making in the whole 3177 pounds, or C. 26: 3: 13.

Fire-barrels in artillery, may be made of any length; however, they are seldom made more than 21 inches. The interior anchor of port-fire moulds should be 10-15 of an inch, and the diameter of the whole port-fire about 1-5 an inch. The paper cases must be rolled wet with paste, and one end folded down. They are used instead of matches to fire artillery. The composition of wet port-fire is, salt-petre 5, sulphur 2.5, and mealed powder 12; when it is well mixed and sieved, it is to be moistened with a little linseed oil; the composition for dry port-fire is, salt-petre 4, sulphur 1, mealed powder 5, and antimony 1.
Rockets, in pyrotechny, an artificial firework, consisting of a cylindrical case of paper, filled with a composition of certain combustible ingredients; which being tied to a stick, mounts into the air to a considerable height and thence bursts, they are frequently used as signals in war time.

Composition for sky-rockets in general is, saltpetre 1 lb., brimstone 1 lb., and charcoal 1 lb.; but for large sky-rockets, salt-petre 4 lb., mealed powder 1 lb., and brimstone 1 lb., for rockets of a middling size, salt-petre 3 lb., sulphur 2 lb., mealed powder 1 lb., and charcoal 1 lb.

Quick-match in artillery, is of 2 sorts, cotton and worsted; the first is generally made of such cotton as is put in candles, of several sizes, from 1 to six threads thick, according to the pipes it is designed for. The ingredients are, cotton 1 lb. 2 oz., saltpetre 1 lb. 8 oz., spirits of wine 2 quarts, water 2 quarts, sugar 3 gills, and mealed powder 1 lb. It is then taken hot, and laid in a trough where some mealed powder, moistened with spirits of wine, is thoroughly wrought into the cotton. This done, they are taken out separately, and drawn through mealed powder, and hung upon a line to dry. — The second is, worsted 3 oz., mealed powder 1 lb., spirits of wine 3 pints, and white-wine vinegar 3 pints.

LACHER, Fr. to go off. — Sans plideur, on se sauve, c'est à lacher; his pistol, or his musquet, went off of itself.

LACHER, Fr. to go away. Lacher un prisonnier, Fr. to let a prisoner escape, or go away unmolested.

Lacher un coup in speaking of fire arms, signifies to discharge a pistol or musquet. Il lui lacha un coup de pistole dans la tête; he lodged a bullet in his head. Le nauvaseur lacha toute sa bordée à la porte du musquet; the ship fired a whole broadside within musquet shot.

LACHETTE, Fr. An old term which is frequently used among the French, and is applied in all instances of cowardice, want of spirit, or disgraceful conduct. One of their writers emphatically observes, that in a military sense of the word it cannot be misunderstood, as the least imputation of cowardice or want of spirit, is sufficient to destroy the entire character and fame of every officer and soldier whom it may affect. As it is the direct opposite to courage, the person who enters into the profession of arms, should weigh well within himself whether he possesses that indispensable quality, which is above all the temptations of pleasure or the extremities of life, and is only alive to the glorious impulse of military animation. He only, in fact, is fit for arms, whose spirit is superior to every sordid view, who knows no personal fear, and who can encounter the greatest difficulties and dangers with an inward placidity of soul, and an outward indifference to life. In order to illustrate this article, we shall quote some ancient and modern instances of that species of cowardice or lacheté, which allures the military character.

Euripides, chief of the Eleians, having imprudently advanced too far into a long and narrow dell, and learning, that Philip of Macedon was on this march to block up the passage through which he had entered, instead of manfully waiting the issue of an engagement, abandoned his army, in the most cowardly manner. He does not appear to say the cheat.
that Euripidas possessed those talents which are necessary to form a great general; for instead of meanly sealing off by a bycroad and leaving his army to its fate, he would have remained at its head, and either have fought his way through, honorably have capitulated, or have died combating with his men.

Base and infamous as this conduct of Euripidas most-unquestionably was, the behavior of Perseus king of the Macedonians exceeded it in cowardice and. shells, or any other composition, to fill that Euri pidas possessed l hose ta lent s

of numbers. Yer, strange to relate! the to be taken by surprise. They are made of single ropes, sometimes of flat straps, so as to move about their pin; and short handles of wood, used in scaling the faces of shells, or any other composition, to fill the cases of sky rockets, &c.—There is another kind of ladder which is used to carry red hot shot. It is made of iron, having a ring in the middle to hold the shot, from which a handles proceed from opposite sides of the ring.

Scaling LADDERS (échelles de siege, Fr.) are used in scaling when a place is to be taken by surprise. They are made in several ways: sometimes of flat straps, so as to move about their pin; and short handles of wool, used in supplying the faces of shells, or any other composition, to fill the cases of sky rockets, &c.—There is another kind of ladder which is used to carry red hot shot. It is made of iron, having a ring in the middle to hold the shot, from which a handles proceed from opposite sides of the ring.

La trahison est une échelle; trahison is infamous in its nature.
he right to protect their breasts with the

cuirasses; because, if they can penetrate, the rest may easily fall. If

the success of an attack by scaling is

infallible, if they mount the 4 sides at once, and take care to shower a number of

grenades among the enemy, especially when supported by some grenadiers and

piqueurs, who divide the attention and share the fire of the enemy.

The ingenious colonel Con歲ve of the

British artillery, has very much improved upon the construction of these ladders.

As the height of different works vary, and the ladders, when too long, afford pur-
suit to the besieged, he has observed a

set of ladders having an iron staple at the

lower part of each stem, so that if 1, 2, 3, or

be right to protect their breasts with the

blade which was fixed to the pole. Lances

infallible, if they mount the

sct of ladders having an iron staple at the

ladders, when too long, afford pur.

tret to the adversary. The

and picquets, who divide the attention and signified to engage or come to close

ll)On the construction of these ladders. I'rancoise, likewise means in a familiar

facility be joined to the lowest, and that expression, to signify the right hand

be pushed up until

3,

chase to the besieged, he has contrived a French say:

LANCE

L; made of copper and the la pis calamina-
dicat thattheenemy was beated, a

s; a soft brass. the chevaliers or gemtannes should close

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sccine, th::t on the dissolution of his

forms, he mdues the body

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helmet was laid aside. In former resorted to with great success. 

VI. Thi bet. no use indeed, was made of them, durin-

ces, which were then said to be retaillces serve to set fire to foscs, as they can b,C,

er ribands which w1:re twisted round the

still retained that wea non as low down as

These ornaments fell into disuse when

French revolution, the

times, when the chevaliers or persons LANCE,

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These ornaments fell into disuse when

French revolution, the

times, when the 'cavaliers or persons LANCE,

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ner ribands which w1:re twisted round the

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These ornaments fell into disuse when

French revolution, the
Lance à feu poant, Fr. Stink-fire lances prepared in the same manner that sink-pots are, and particularly useful to miners. When a miner or sapper has so far penetrated towards the enemy as to hear the voices of persons in any place contiguous to his own excavation, he first of all bores a hole with his probe, then fires off several pistols through the aperture, and lastly forces in a lance à feu poant, taking care to close up the hole on his side to prevent the smoke from retuming towards himself. The expiration and stinking hot vapour which issue from the lance, and remain confined on the side of the enemy, infest the air so much, that it is impossible to approach the quarter for three or four days. Sometimes indeed, they have had so instantaneous an effect, that in order to save their lives, miners, who would persevere, have been dragged out by the legs in an apparent state of suffocation.

Lance de feu, Fr. A species of squib which is used by the garrison of a besieged town against a scaling party.

Lance-Guille, Fr. An offensive weapon formerly so called in France.

Lance-Spazzato, Fr. A reduced officer. In former times it signified a dismounted gendarme who was appointed to an infantry corps with some emolument attached to his situation. The word spazzato, a non-commissioned officer who acts subordinate to the corporal, is corrupted from this term. Besides the three hundred Swiss guards which were constantly attached to the palace, the Pope maintained twenty-two lance-spiezzato or reduced officers.

LANDING Troops. See Debarkation and Regulations.

LAND FORCES, troops whose system is calculated for land service only, in contradistinction to seamen and mariners. All the land forces of Great Britain are liable to serve on board the navy. Indeed the marine establishment as a military corps is an anomaly, kept up only for patronage; the proper establishment of soldiers for sea service should be by detachments from the infantry, according to a roster.

LANE, in a military sense, is where men are drawn up in two ranks facing one another, as in a street, for any great person to pass through, or sometimes for a soldier to run the gauntlet.

LANGE, Fr. A term peculiarly connected with the late military orders of Malta. The eight nations of which this celebrated order consisted, were distinguished by the appellation of Langue or tongue. There were three of this description in France, viz. la Langue de France, la Langue de Provence, and la Langue d'Auvergne; two in Spain, viz. la Langue d'Arragon, and la Langue de Castile; and three indiscriminately, viz. la Langue d'Italia, la Langue d'Alsace, and la Langue d'Angleterre. The head of each langue was called Grand Prior.

LANGUE de terre, Fr. A tongue of land.

LANSQUENETS, Fr. The German mercenaries which Charles VII. of France first added to his infantry, were so called. They continued in the French service until the reign of Francis I, who consolidated all the foot establishments into a certain number of legions; they were so called from the lance or pike which was their weapon.

LANS.PESATE, Fr. A soldier that does duty as a corporal, especially on guards and detachments; a lance corporal.

LANTERN, Fr. Commonly called LANTHORN, Muscovy lantern, being a kind of dark lanterns, used in the field, when dark, to light the gunners in the camp to prepare the stores, &c.

LANTERNE, Fr. A word used in the French navy to signify any wooden case or box in which cartridges are brought out of the powder magazine for the purpose of serving the guns.

LANSE, Fr. It is sometimes called saliter or ladle, and serves to convey gunpowder into a piece of ordnance. It is made of copper, and resembles a round spoon or ladle, which it fixed to a long pole.

LANTERNE, a mitraille, Fr. A round piece of canoe wood, something like a box, which is filled with case shot, and is fired from a piece of ordnance when the enemy is near.

ASCARS, or Lascars. The native seamen of India; the native gunners are likewise so called. They are employed to tend and serve the artillery on shore, and are attached to corps as pioneers or to pitch-carts.

LASHING-RINGS, in artillery, with hoops, fixed on the side-pieces of traveling carriages, to lash the tarpauling, as also to tie the spunge, rammer, and ladle. See Carriage.

LAT, in building, a long, thin, and narrow slip of wood, nailed to the rafters of a roof or ceiling, in order to fasten the covering. Laths are distinguished into three kinds, according to the different kinds of wood of which they are made, viz. heart of oak, sap-laths, deal-laths, &c.

LATHÉ, Fr. A machine for turning wood or metal.

LATHE, Fr. An officer during the Saxon government, who held a certain jurisdiction over part of the country which was called a tithing.

LATTIE, an Indian term for warehouse.

LATITUDE, in geography, the distance of any place from the equator measured in degrees, minutes, seconds, &c., upon the meridian of that place; and is either north or south according as the place is situated either on the north or south side of the equator.

LATRINES, Fr. Privies or holes which are dug at the back of a camp for the convenience of soldiers. The
pioneers are generally employed to make them.

LAVES, LAVIS, Fr. a wash, or superficial stain or color; it is particularly made use of in all sketches, plants, and drawings; the different intervals or spaces of which are slightly shaded or colored. This kind of painting is called lavis, or water-coloring. The difference between miniature painting and washing ordinaries in water colors, consists in this, that the former is dotted and worked up into light and shade; the latter is barely spread with a brush. There are, besides, other marks of distinction; those colors which more immediately resemble nature, are always used in the lavis or water-painting; the spaces that represent a fossa or ditch, which is supposed to be full of water, must be distinguished by a sky blue; brick and tiles by red; roads by a dun color, and trees or turf, &c. by green.

LAVES, Fr. generally means every sort of simple color which is diluted with water.

LAVES, Fr. the grains, dust, or detached pieces of metal which fall in casting cannon.

LAVEL, a shrub which is always green.

To be crowned with laurels, a figurative expression, signifying that a man has achieved glorious actions, and is entitled to marks of public distinction. In ancient times heroes and conquerors had their heads decorated with a wreath of laurels.

LAURES, gold coins which were issued from the English mint in 1679, representing the head of King James I. encircled with laurels.

LAW of arms, certain acknowledged rules, regulations, and precepts, which relate to war, and are observed by all civilized nations.

LAW of arms are likewise certain precepts shewing how to proclaim war, to attack the enemy, and to punish offenders in the camp; also restricting the contending parties from certain cruelties, &c.

LAW military. The persons who are subject to military law, and are amenable to trial by court martial, are in the terms of military law, all persons commissioned or in pay, as officers, non-commissioned officers, private soldiers, and all followers of an army. Half pay officers are not subject to military law, whilst civil justice can be resorted to.

LAW relating to military affairs. The following laws existed during the most flourishing state of the Roman commonwealth. We insert them in this place as by no means being inapplicable to the present times.

Secreta Lex Militaris, which was promulgated about the year 411, ordained, that no soldier's name which had been entered in the muster roll, should be struck out, unless by the party's consent; and that no person who had been military tribune should execute the office of curule ordinum. Sempronius lex, which appeared in the year 656, ordained, that the soldiers should receive their pay gratis at the public charge, without any diminution of their ordinary pay; and that none should be obliged to serve in the army, who was not full seventeen years old. Sulpicius lex, which was made in 658, ordained, that the chief command in the militia war, which was then enjoyed by L. Sulla, should be taken from him, and conferred on C. Marius.

Gabinius lex appeared in 685, ordaining that a commission should be granted to Cn. Pompey, for the management of the war against the pirates for three years, with this particular clause, that upon all the sea on this side Hercules's pillars, and in the maritime provinces, as far as 400 stadia from the sea, he should be empowered to command kings, governors, and states to supply him with all the necessaries in his expedition.

Manilia lex, published in 687, ordained, that all the forces of Lucullus, and the province under his government, should be given to Pompey; together with Richy, which was under the command of Gabrie, and that he should forthwith make war upon Mithridates, retaining still the same naval forces, and the sovereignty of the seas as before.

Marius Pertia lex appeared in 691, ordaining that a penalty should be inflicted on such commanders as wrote falsely to the senate, about the number of the slain, on the enemy's side, and of their own party; and that they should be obliged, when they first entered the city, to take a solemn oath before the quakers, that the number which they returned, was true, according to the best computation. See Kennett's Ant. of Rome, page 168.

It will be seen by these laws, particularly by the last, that the most minute military operation was subservient to the senate. The French seem, in this respect, to have imitated the Romans very closely, but they do not appear to have adhered so strictly as they ought, to the law which regards the loss of men, nor is their neighbors more correct.

LAWS of Nations, such general rules as regard the embassies, reception and entertainment of strangers, intercourse of merchants, exchange of prisoners, suspension of arms, &c.

LAW of merchandise, or letters of marque, that by which persons take the goods or shipping of the party that has wronged them, in time of war, whenever they can take them within their precincts.

LAW of the United States, regulating the military establishment; these are of two descriptions, the first relates to the regular force; the second to the militia, the latter of which is more print and paper, without consistency, efficacy, pr
force; and calculated rather to discourage than assure military knowledge in the militia. The following are the laws regulating the military establishment.

Sec. 1. That from and after the passing of this act, the following shall be the rules and articles by which the armies of the United States shall be governed.

Art. 1. Every officer now in the army of the United States, shall, in six months from the passing of this act, and every officer who shall hereafter be appointed, shall before he enters on the duties of his office, subscribe these rules and regulations.

Art. 2. It is earnestly recommended to all officers and soldiers diligently to attend divine service; and all officers who shall behave indecently or irreverently at any place of divine worship, shall, if commissioned officers, be brought before a general court-martial, there to be publicly and severely reprimanded by the president; if non-commissioned officers or soldiers, every person so offending shall, for the first offence, forfeit one sixth of a dollar, to be deducted out of his next pay; for the second offence, he shall not only forfeit the same sum, but be confined twenty-four hours: and for every like offence shall suffer and pay in like manner; which money, so forfeited, shall be applied by the captain or senior officer of the troop or company, to the use of the sick soldiers of the company or troop to which the offender belongs.

Art. 3. Any non-commissioned officer or soldier who shall use any profane oath or exclamation shall incur the penalties expressed in the foregoing article, and a commissioned officer shall forfeit and pay for each and every such offence one dollar, to be applied as in the preceding article.

Art. 4. Every chaplain commissioned in the army or armies of the United States, who shall absent himself from the duties assigned him (except in cases of sickness or leave of absence) shall, on conviction thereof before a court-martial, be fined not exceeding one month's pay, besides the loss of his pay during his absence; or be discharged, as the said court-martial shall judge proper.

Art. 5. Any officer or soldier who shall use contemptuous or disrespectful words against the president of the United States, against the vice president thereof, against the congress of the United States, or against the chief magistrate or legislature of any of the United States in which he may be quartered, if a commissioned officer, shall be cashiered, or otherwise punished as a court-martial shall direct; if a non-commissioned officer or soldier, he shall suffer such punishment as shall be inflicted on him by the sentence of a court-martial.

Art. 6. Any officer or soldier who shall behave himself with contempt or disrespect towards his commanding officer, shall be punished according to the nature of his offence, by the judgment of a court-martial.

Art. 7. Any officer or soldier who shall begin, exercise, cause, or join in any mutiny or sedition in any troop or company in the service of the United States, or in any party, post, detachment, or guard, shall suffer death, or such other punishment as by a court-martial shall be inflicted.

Art. 8. Any officer, non-commissioned officer, or soldier, who being present at any mutiny or sedition, does not use his utmost endeavor to suppress the same, or coming to the knowledge of any intended mutiny, does not without delay, give information thereof to his commanding officer, shall be punished by the sentence of a court-martial with death or otherwise, according to the nature of his offence.

Art. 9. Any officer or soldier who shall strike his superior officer, or raise hell or lift up any weapon, or offer any violence against him, being in the execution of his office, or any protestant writing; or shall disobey any lawful command of his superior officer, shall suffer death, or such other punishment as shall, according to the nature of his offence, be inflicted upon him by the sentence of a court-martial.

Art. 10. Every non-commissioned officer, or soldier, who shall enlist himself in the service of the United States, shall, at the time of his so enlisting, or within six days afterwards, have the articles for the government of the armies of the United States, read to him, and shall, by the officer who enlisted him, be taken before the next justice of the peace, or chief magistrate of any city or town corporate, not being an officer of the army, or where recourse cannot be had to the civil magistrate, before the judge advocate, and, in his presence, shall take the following oath or affirmation: "I, A. B., do solemnly swear, or affirm, (as the case may be) that I will bear true allegiance to the United States of America, and that I will serve them honestly and faithfully against all their enemies, or opposers, whatsoever, and observe and obey the orders of the president of the United States, and the orders of the officers appointed over me, according to the rules and articles for the government of the armies of the United States." Which justice, magistrate, or judge advocate is to give the officer a certificate, signifying that the man enlisted, did take the said oath, or affirmation.

Art. 11. After a non-commissioned officer or soldier, shall have been duly enlisted and sworn, he shall not be dismissed the service without a discharge in writing; and no discharge granted to him shall be sufficient, which is not signed by a field officer of the regiment to which he belongs, or commanding officer, where no
field officer of the regiment is present; and no discharge shall be given to a non-commissioned officer or soldier, before his term of service has expired, but by order of the president, the secretary of war, or of the commander of a department, or by the sentence of a general court-martial, nor shall a commissioned officer be discharged the service, but by order of the president of the United States, or by sentence of a general court-martial.

Art. 12. Every colonel, or other officer commanding a regiment, troop, or company, and actually quartered with it, may give furloughs to non-commissioned officers or soldiers, in such numbers, and for so long a time as he shall judge to be most consistent with the good of the service; and a captain or other inferior officer commanding a troop or company, or in any garrison, fort or barrack of the United States, (his field officer being absent), may give furloughs to non-commissioned officers or soldiers, for a time not exceeding twenty days in six months, but not to more than two persons to be absent at the same time, excepting some extraordinary occasion should require it.

Art. 13. At every muster, the commanding officer of each regiment, troop, or company, there present, shall give the muster-roll, containing the names of officers then absent from their posts, and the reasons for, and the time of their absence. And the officer who shall be convicted of having, through neglect or design, omitted sending such returns, shall be punished according to the nature of his crime, by the judgment of a general court-martial.

Art. 14. Every officer who shall be convicted, before a general court-martial, of having signed a false certificate, relating to the absence of either officer or private soldier, or relative to his or their pay, shall be cashiered.

Art. 15. Every officer who shall knowingly make a false muster of man or horse, and every officer or commissioned officer of a regiment, troop, or company, on the signing muster-rolls, shall be displaced from his office, and shall be therefore utterly disabled to have or hold any office or employment in the service of the United States.

Art. 16. Any commissioned officer or other officer, who shall be convicted of having taken money or other thing, by way of gratification, on the muster of any regiment, troop or company, or on the signing muster-rolls, shall be displaced from his office, and shall be therefore utterly disabled to have or hold any office or employment in the service of the United States.

Art. 17. Any officer who shall presume to muster a person as a soldier, who is not a soldier, shall be deemed guilty of having made a false muster, and shall suffer accordingly.

Art. 18. Every officer who shall knowingly make a false return to the department of war, or to any of his superior officers, authorized to call for such returns, of the state of the regiment, troop, or company, or garrison, under his command; or of the arms, ammunition, clothing, or other stores thereof belonging, shall be cashiered before a court-martial.

Art. 19. The commanding officer of every regiment, troop, or independent company, or garrison of the United States, shall in the beginning of every month, require through the proper channels, to the department of war, an exact return of the regiment, troop, independent company, or garrison, under his command; specifying the names of officers then absent from their posts, and the reasons for, and the time of their absence. And the officer who shall be convicted of having, through neglect or design, omitted sending such returns, shall be punished according to the nature of his crime, by the judgment of a general court-martial.

Art. 20. All officers and soldiers, who have received pay, or have been duly inlisted in the service of the United States, and shall be convicted of having deserted the same, shall suffer death, or such other punishment as by sentence of a court-martial shall be inflicted.

Art. 21. Any non-commissioned officer or soldier, who shall, without leave of absence, enlist himself in any other regiment, troop, or company, or desert, shall, upon being convicted thereof, be punished according to the nature of his offence at the discretion of a court-martial.

Art. 22. No non-commissioned officer or soldier shall enlist himself in any other regiment, troop, or company, without a regular discharge from the regiment, troop, or company, in which he last served, on the penalty of being reputed a deserter, and suffering accordingly. And in case any officer shall knowingly receive and entertain such non-commissioned officer or soldier, or shall not, after his being discovered to be a deserter, immediately confine him, and give notice thereof to the corps in which he last served, the said officer shall by a court-martial be cashiered.

Art. 23. Any officer or soldier, who shall be convicted of having advised or
persuaded any other officer or soldier, to desert the service of the United States, shall suffer death, or such other punishment as shall be inflicted upon him by the sentence of a court martial.

Art. 24. No officer or soldier shall use any reproachful or provoking speeches or gestures to another, upon pain, if an officer, of being put in arrest; if a soldier, confined, and of asking pardon of the party offended, in the presence of his commanding officer.

Art. 25. No officer or soldier shall send a challenge to another officer or soldier, to fight a duel, or accept a challenge, if upon pain, if a commissioned officer of being cashiered; if a non-commissioned officer or soldier, of suffering corporal punishment at the discretion of a court-martial.

Art. 26. If any commissioned or non-commissioned officer commanding a guard, shall knowingly or willingly suffer any person whatsoever to go forth to fight a duel, he shall be punished as a challenger; and all seconds, promoters, and carriers of challenges, in order to duels, shall be deemed principals, and be punished accordingly. And it shall be the duty of every officer commanding an army, regiment, company, post, or detachment, who is knowing to a challenge being given, or accepted, by any officer, non-commissioned officer, or soldier, under his command, or has reason to believe the same to be the case, immediately to arrest and bring to trial such officer.

Art. 27. All officers, of what condition soever, have power to part and quell all quarrels, fray, and disorders, though the persons concerned should belong to another regiment, troop, or company; and either to order officers into arrest, or non-commissioned officers or soldiers into confinement, until their proper superior officers shall be acquainted therewith; and whatsoever shall refuse to obey such officer, (though of an inferior rank) or shall draw his sword upon him, shall be punished at the discretion of a general court-martial.

Art. 28. Any officer or soldier, who shall upbraid another for refusing a challenge, shall himself be punished as a challenger, and all officers and soldiers are hereby discharged from any disgrace or opinion of disadvantage, which might arise from their having refused to accept of challenges, as they will only have acted in obedience to the laws, and done their duty as good soldiers, who subject themselves to discipline.

Art. 29. No suttler shall be permitted to sell any kind of liquors or victuals, or to keep their houses or shops open for the entertainment of soldiers, after nine at night, or before the beating of the reveilles, or upon Sundays, during divine service or sermon, on the penalty of being dismissed from all future service.

Art. 30. All officers commanding in the field, forts, barracks, or garrisons of the United States, are hereby required to see that the persons permitted to suttle, shall supply the soldiers with good and wholesome victuals, liquors, or other necessaries of life, brought into the garrison, fort, or barracks, for the use of the soldiers, on the penalty of being discharged from the service.

Art. 31. No officer commanding in any of the garrisons, forts, or barracks of the United States, shall exact exorbitant prices for houses or stalls let to suttlers, or commit the like exactions in others; nor by his own authority, and for his private advantage, lay any duty or imposition upon, or he interested in, the sale of any victuals, liquors, or other necessaries of life, brought into the garrison, fort, or barracks, for the use of the soldiers, on the penalty of being dismissed from the service.

Art. 32. Every officer commanding in quarters, garrisons, or on the march, shall keep good order, and to the utmost of his power, redress all abuses or disorders, which may be committed by any officer or soldier under his command; if upon complaint made to him of officers or soldiers beating, or otherwise ill treating any person, of disturbing fairs, or markets, or of committing any kind of riots, to the disquieting of the citizens of the United States, he, the said commander, who shall refuse or omit to see justice done to the offender or offenders, and reparation made to the party or parties injured, as far as part of the offender's pay shall enable him or them, shall, upon proof thereof, be cashiered or otherwise punished as a general court-martial shall direct.

Art. 33. When any commissioned officer or soldier, shall be accused of a capital crime, or of having used violence, or committed any offence against the person or property of any citizen of any of the United States, such as is punishable by the known laws of the land, the commanding officer, and officers of every regiment, troop, or company, to which the person, or persons, so accused, shall belong, are hereby required, upon application duly made by, or in behalf of the party or parties injured, to use their utmost endeavors to deliver over such accused person, or persons, to the civil magistrates, and likewise to be aiding and assisting to the officers of justice in apprehending and securing the person or persons so accused in order to bring him or them to trial. If any commanding officer, or officers, shall wilfully neglect, or shall refuse, upon the application aforesaid, to deliver over such accused person, or persons, to the civil magistrates, or to be aiding and assisting to the officers of justice in apprehending such person, or persons, the officer, or officers, so offending, shall be cashiered.

Art. 34. If any officer shall think himself wronged by his colonel, or the commanding officer of the regiment, it shall, upon due application being made to
him, be refused redress, he may complain to the general commanding in the state or territory where such regiment shall be stationed, in order to obtain justice; who is hereby required to examine into the said complaint, and take proper measures for redressing the wrong complained of, and transmit as soon as possible, to the department of war, a true state of such complaint, with the proceedings had thereon.

Art. 35. If any inferior officer or soldier, shall think himself wronged by his captain, or other officer, he is to complain thereof to the commanding officer of the regiment, who is hereby required to summon a regimental court-martial, for the doing justice to the complainant; from which regimental court martial, either party may, if he thinks himself still aggrieved, appeal to a general court-martial. But if, upon a second hearing, the appeal shall appear vexatious and groundless, the person so appealing, shall be punished at the discretion of the said court-martial.

Art. 36. Any commissioned officer, store keeper, or commissary, who shall be convicted at a general court-martial, of having sold, without a proper order for that purpose, embezzled, misapplied, or wilfully, or through neglect, suffered any of the provisions, forage, arms, clothing, accoutrements, or other military stores, belonging to the United States, to be spoiled, or damaged, shall, at his own expense, make good the loss, or damage, and shall moreover, forfeit all his pay, and be dismissed from the service.

Art. 37. Any non-commissioned officer, or soldier, who shall be convicted at a regimental court-martial, of having sold, or disposed of, or through neglect, wasted the money delivered out to him, to be employed in the service of the United States, shall be punished at the discretion of such court.

Art. 38. Every non-commissioned officer or soldier, who shall be convicted before a court-martial, of having sold, lost, or spoiled, through neglect, his horse, arms, clothes, or accoutrements, shall undergo such weekly stoppages (not exceeding the half of his pay) as such court martial shall judge sufficient, for repairing the loss or damage; and shall suffer confinement or such other corporeal punishment as his crime shall deserve.

Art. 39. Every officer, who shall be convicted before a court-martial, of having embezzled, or misapplied any money, with which he may have been entrusted for the payment of the men under his command, or for inflating men into the service, or for other purposes, if a commissioned officer, shall be cashiered, and compelled to refund the money; if a non-commissioned officer, shall be reduced to the ranks, be put under stoppages until the money be made good, and suffer such corporeal punishment as such court-martial shall decree.

Art. 40. Every captain of a troop, or company, is charged with the arms, accoutrements, ammunition, clothing, of other warlike stores belonging to the troop, or company under his command, which he is to be accountable for to his colonel, in case of their being lost, spoiled, or damaged, not by unavoidable accidents, or on actual service.

Art. 41. All non-commissioned officers and soldiers, who shall be found one mile from the camp, without leave, in writing, from their commanding officer, shall suffer such punishment as shall be inflicted upon them by the sentence of a court-martial.

Art. 42. No officer, or soldier, shall be out of his quarters, garrison, or camp, without leave from his superior officer, upon penalty of being punished according to the nature of his offence, by the sentence of a court-martial.

Art. 43. Every non-commissioned officer and soldier shall retire to his quarters or tent, at the beating of the retreat; in default of which he shall be punished according to the nature of his offence.

Art. 44. No officer, non-commissioned officer, or soldier, shall fail in repairing, at the time fixed, to the place of parade, of exercise, or other rendezvous appointed by his commanding officer, if not prevented by sickness, or some other evident necessity; or shall go from the said place of rendezvous, without leave from his commanding officer, before he shall be regularly dismissed or relieved, on the penalty of being punished according to the nature of his offence, by the sentence of a court-martial.

Art. 45. Any commissioned officer who shall be found drunk on his guard, party, or other duty, shall be cashiered. Any non-commissioned officer or soldier who, by forwarding, shall suffer such corporeal punishment as shall be inflicted by the sentence of a court-martial.

Art. 46. Any sentinel who shall be found sleeping upon his post, or shall leave it before he shall be regularly relieved, shall suffer death, or such other punishment as shall be inflicted by the sentence of a court-martial.

Art. 47. No soldier belonging to any regiment, troop, or company, shall hire another to do his duty for him, or be excused from duty, but in cases of sickness, disability, or leave of absence; and every such soldier found guilty of hiring his duty, or doing any other ill practice in the service, shall be punished by the judgment of a general court-martial.

Art. 48. Any commissioned officer conniving at such hiring of duty aforesaid, shall be reduced; and every commissioned officer, knowing and allowing such ill practices in the service, shall be punished by the judgment of a general court-martial.

Art. 49. Any officer belonging to the service of the United States, who, by discharging of the arms, drawing of swords,
beating of drums, or by any other means whatsoever, shall occasion false alarms in
camp, garrison, or quarters, shall suffer death, or such other punishment as shall
be ordered by the sentence of a general
court-martial.

Art. 50. Any officer or soldier, who
shall, without urgent necessity, or with­
out the leave of his superior officer, quit
his guard, platoon, or division, shall be
punished according to the nature of his
offence, by the sentence of a court-martial.

Art. 51. No officer or soldier shall do
violence to any persons who bring pro­
elled, by the officers and soldiers un­
to notice, by the sentence of a court­

death, or such other punishment as shall
occasion false alarms in

of the said states, upon pain of death, or
such other punishment as shall

punishments shall be ordered by
the sentence of a general
court-martial.

Art. 52. Any officer or soldier, who
shall misbehave himself before the enemy,
run away, or shamefully abandon any
post, or guard, which he or they may
be commanded to defend, or speak words
inducing others to do the like; or shall
keep away his arms and ammunition, or
who shall quit his post or colors to plun­
der and pillage, every such offender be­
ing duly convicted thereof, shall suffer
death or such other punishment as shall
be ordered by the sentence of a general
court-martial.

Art. 53. Any person belonging to the
armies of the United States, who shall
make known the watch-word to any per­
son who is not entitled to receive it, ac­
cording to the rules and discipline of war,
or shall presume to give a parole or watch­

shall suffer death, or such other punish­
ment as shall be ordered by the sentence
of a general court-martial.

Art. 54. All officers and soldiers are
to behave themselves orderly in quarters,
on their march; and whatsoever shall
commit any waste, or spoil, either in
walks of trees, parks, warrens, fish ponds,
houses, or gardens, corn-fields, enclosures
of meadows, or shall maliciously destroy
any property whatsoever, belonging to
the inhabitants of the United States;
under the order of the then commander in
chief of the armies of the said states, shall
be ordered on any duty beyond the line
of the immediate profession, except
special order of the president of the Uni­
ted States; but they are to receive only
such orders as are proper to the nature of
the case.

Art. 55. Whosever, belonging to the
armies of the United States, employed in
military posts, shall force a safe guard,
shall suffer death.

Art. 56. Whosoever shall relieve the
enemy with money, victuals, or ammu­
nition, or shall knowingly harbor or protect
an enemy, shall suffer death or such other
punishment as shall be ordered by the
sentence of a court-martial.

Art. 57. Whosoever shall be convicted of
holding correspondence with, or giving
intelligence to the enemy, either directly
or indirectly, shall suffer death, or such
other punishment as shall be ordered by
the sentence of a court-martial.

Art. 58. All public stores taken in the
enemy's camp, towns, forts, or magazi­
es, whether of artillery, ammunition, cloth­
ing, forage, or provisions, shall be secured
for the service of the United States; for
the neglect of which the commanding of­
cers is to be answerable.

Art. 59. If any commander of any
army, garrison, fortress, or post, shall be con­
viicted, by the officers and soldiers under
his command, to give up the enemy,
or to abandon it; the commissioned of­
cers, non-commissioned officers, or
soldiers, who shall be convicted of hav­
ing so offended, shall suffer death, or such
other punishment as shall be inflicted
on them by the sentence of a court­
martial.

Art. 60. All sutlers and retinuees to
the army, and all persons whatever
serving with the armies of the United
States, in the field, though not immedi­
atly soldiers, are to be subject to orders,
according to the rules and discipline of
war.

Art. 61. Officers having brevets, or
commissions, of a prior date to those of
the regiment in which they serve, may
be dealt with in courts-martial and on detach­
ments, when composed of different corps,
according to the rank given them in their
brevets, or dates of their former commis­
sions; but in the regiment, troop, or
company, to which such officers belong,
they shall do duty and take rank, both
in courts-martial and on detachments,
which shall be composed only of their
own corps, according to the commission;
by which they are invested in the said
corps.

Art. 62. If upon marches, guards, or
in quarters, different corps of the army
shall happen to join, or do duty together,
the officer highest in rank of the line of
the army, marine corps, or militia, by
commission thereon, or duty, or in quarter,
shall command the whole, and give orders
for what is serviceable to the service, unless
otherwise specially directed by the presi­
dent of the United States, according to the
nature of the case.

Art. 63. The functions of the reg­
lers being generally confined to the most
elevated branch of military science, they
are not to assume, nor are they subject to
be ordered on any duty beyond the line
of their immediate profession, except by
special order of the president of the Uni­
ted States; but they are to receive only
such orders as are proper to the nature of
the case.

Art. 64. General courts-martial may
consist of any number of commissioned
officers, from five to thirteen, inclusively, but they shall not consist of less than thirteen, where that number can be convened, without manifest injury to the service.

Art. 69. Any general officer commanding an army, or colonel commanding a separate department, may appoint general courts-martial, whenever necessary. But no sentence of a court-martial shall be carried into execution until after the whole proceedings shall have been laid before the officer ordering the same, or the officer commanding the troops for the time being; neither shall any sentence of a general court-martial, in time of peace, extending to the loss of life, or the dissolution of a commissioned officer, or which shall, either in time of peace or war, respect a general officer, be carried into execution, until after the whole proceedings shall have been transmitted to the secretary of war, to be laid before the president of the United States, for his confirmation or disapproval, and orders in the case. All other sentences may be confirmed and executed by the officer ordering the court to assemble, or the commanding officer for the time being, as the case may be.

Art. 66. Every officer commanding a regiment, or corps, may appoint, for his own regiment or corps, courts-martial, to consist of three commissioned officers, for the trial and punishment of offences, not capital, and decide upon their sentence. For the same purpose all officers, commanding any of the garrisons, forts, barracks, or other places where the troops consist of different corps, mayassemble courts-martial, to consist of three commissioned officers, and decide upon their sentences.

Art. 67. No garrison, or regimental court-martial shall have the power to try capital cases; or commissioned officers; neither shall they inflict a fine exceeding one month's pay, nor imprison, nor put to hard labor, any non-commissioned officer or soldier, for a longer time than one month.

Art. 68. Whenever it may be found convenient and necessary to the public service, the officers of the marines shall be associated with the officers of the land forces, for the purpose of holding courts-martial and trying offenders belonging to either; and in such cases the officers of the senior officers of either corps who may be present and duly authorised, shall be received and esteemed.

Art. 69. The judge advocate, or some person deputed by him, or by the general commanding the army, detachment, or garrison, shall prosecute in the name of the United States, but shall so far consider himself as counsel for the prisoner, after the said prisoner shall have made his plea, as to object to any leading question to any of the witnesses, or any question to the prisoner, the answer to which might tend to criminate himself; and administer to each member of the court before they proceed upon any trial, the following oath, which shall also be taken by all members of the regimental and garrison courts-martial.

"You A. B. do swear that you will well and truly try and determine, according to evidence, the matter now before you, between the United States of America, and the prisoner to be tried, and that you will duly administer justice, according to the provisions of an act establishing rules and articles for the government of the armies of the United States, and that you will not divulge the sentence of the court until it shall be published by the proper authority; neither will you disclose or discover the vote or opinion of any particular member of the court-martial, unless required to give evidence thereof as a witness, by a court of justice, in a due course of law. So help you God."

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Art. 73. No garrison, or regimental court-martial shall have the power to try capital cases; or commissioned officers; neither shall they inflict a fine exceeding one month's pay, nor imprison, nor put to hard labor, any non-commissioned officer or soldier, for a longer time than one month.

Art. 74. Whenever it may be found convenient and necessary to the public service, the officers of the marines shall be associated with the officers of the land forces, for the purpose of holding courts-martial and trying offenders belonging to either; and in such cases the officers of the senior officers of either corps who may be present and duly authorised, shall be received and esteemed.
the whole truth, and nothing but the truth. "So help you God."

Art. 74. On the trials of cases not capital, before courts-martial, the deposition of witnesses not in the line or staff of the army, may be taken before some justice of the peace, and read in evidence; provided the prosecutor and the person accused are present at the taking the same, or are duly notified thereof.

Art. 75. No officer shall be tried but by a general court-martial, or by officers of inferior rank, if it can be avoided. Nor shall any proceedings or trials be carried on excepting between the hours of eight in the morning, and three in the afternoon, excepting in cases, which, in the opinion of the officers appointing the court-martial, require immediate example.

Art. 76. No person whatsoever shall use any menacing words, signs, or gestures, in presence of a court-martial, or shall cause any disorder or riot, or disturb the proceedings, or the penalty of being punished at the discretion of the said court-martial.

Art. 77. Whenever any officer shall be charged with a crime, he shall be arrested and confined in his barracks, quarters, or tent, and deprived of his sword, by the commanding officer. And any officer who shall leave his confinement before he shall be set at liberty by his commanding officer, or by a superior officer, shall be cashiered.

Art. 78. Non-commissioned officers and soldiers, charged with crimes, shall be confined, until tried by a court-martial, or released by proper authority.

Art. 79. No officer or soldier who shall be put in arrest shall continue in confinement more than eight days, or until such time as a court-martial can be assembled.

Art. 80. No officer commanding a guard, or provost marshal, shall refuse to receive or keep any prisoner committed to his charge, by an officer belonging to the forces of the United States; provided the officer committing, shall, at the same time, deliver an account in writing, signed by himself, of the crime with which the said prisoner is charged.

Art. 81. No officer commanding a guard, or provost marshal, shall presume to release any person committed to his charge, without proper authority for so doing, nor shall suffer any person to escape, on the penalty of being punished for it by the sentence of a court-martial.

Art. 82. Every officer or provost marshal, to whose charge prisoners shall be committed, shall, within twenty-four hours after such commitment, or as soon as he shall be relieved from his guard, make report in writing, to the commanding officer of their names, their crimes, and the names of the officers who committed them, on the penalty of being punished for disobedience or neglect, at the discretion of a court-martial.

Art. 83. Any commissioned officer convicted before a general court-martial of conduct unbecoming an officer and a gentleman, shall be dismissed the service.

Art. 84. In cases where a court-martial may think it proper to sentence a commissioned officer to be suspended from command, they shall have power also to suspend his pay and emoluments for the same time, according to the nature and heinousness of the offence.

Art. 85. In all cases where a commissioned officer is cashiered for cowardice or fraud, it shall be added in the sentence, that the crime, name, and place of abode and punishment of the delinquent, be published in the newspapers in and about the camp, and of the particular state from which the offender came, or where he usually resides, and he shall be deemed scandalous for an officer to associate with him.

Art. 86. The commanding officer of any post or detachment, in which there shall not be a number of officers adequate to form a general court-martial, shall, in cases which require the cognizance of such a court, report to the commanding officer of the department, who shall order a court to be assembled at the nearest post or detachment, and the party accused, with necessary witnesses, to be transported to the place where the said court shall be assembled.

Art. 87. No person shall be sentenced to suffer death, but by the concurrence of two thirds of the members of a general court-martial, nor except in the cases herein expressly mentioned; nor shall more than fifty lashes be inflicted on any offender, at the discretion of a court-martial; and no officer, non-commissioned officer, soldier, or follower of the army, shall be tried a second time for the same offence.

Art. 88. No person shall be tried and punished by a general court-martial for any offence which shall appear to have been committed prior to the time of these rules, unless the person, by reason of leaving absent himself or some other manifest impediment, shall not have been amenable to justice within that period.

Art. 89. Every officer authorized to order a general court-martial, shall have power to pardon or mitigate any punishment ordered by such court, except the sentence of death, or of cashiering an officer; and in the cases where he has authority (by article 65) to carry him into execution, he may suspend, until the pleasure of the president of the United States can be known; which suspension, together with the copies of the proceedings of the court-martial, the said officer shall immediately transmit to the president, for his determination. And the colonel or commanding officer of the regi-
ment or garrison where any regimental or garrison court-martial shall be held, may
pardon or mitigate any punishment order-
ed by such court to be inflicted.

Art. 90. Every judge advocate, or
person officiating as such, at any general
court-martial, shall transmit, with as
much expedition as the opportunity of
time and distance of place can admit, the
original proceedings and sentence of such
court-martial, to the secretary of war,
which said original proceedings and sen-
tence shall be carefully kept and preserv-
ed in the office of said secretary, to the end
that the persons entitled thereto may be
enabled, upon application to the said of-
Bce, to obtain copies thereof.

The party tried by any general court-
martial, shall, upon demand thereof made
by himself or by any person or persons in
his behalf, be entitled to a copy of the
sentence and proceedings of such court-
martial.

Art. 91. In cases where a general or
commanding officer may order a court of
inquiry to examine into the nature of any
transaction, accusation, or imputation
against any officer or soldier, the said
court shall consist of one or more officers,
not exceeding three, and a judge advocate,
or other suitable person as a recorder, to
reduce the proceedings and evidence to
writing, all of whom shall be sworn to
the faithful performance of their duty.
This court shall have the same power to
summon witnesses as a court-martial, and
to examine them on oath. But they shall
not give their opinion on the merits of the
case, excepting they shall be thereto spe-
cially required. The parties accused shall
also be permitted to cross examine and
interrogate the witnesses, so as to inves-
tigate fully the circumstances in ques-
tion.

Art. 92. The proceedings of a court of
inquiry must be authenticated by the sig-
nature of the recorder and the president,
delivered to the commanding officer,
and the said proceedings may be admitted
as evidence by a court-martial, in cases
not capital, or extending to the dismis-
sion of an officer, provided that the circum-
cstances are such, that oral testimony can-
not be obtained. But as courts of inquiry
may be perverted to dishonest purposes,
and may be considered as engines of
destruction to military merit, in the hands
of weak and envious commandants, they
are hereby prohibited, unless directed by
the president of the United States, or de-
manded by the accused.

Art. 93. The judge advocate, or re-
corder, shall administer to the members
the following oath:

"You shall well and truly examine
and inquire, according to your evidence,
to the matter now before you, without
partiality, favor, affection, prejudice, or
hope of reward: So help you God."

After which the president shall admin-
ister to the judge advocate, or recorder,
the following oath:

"You A. B. do swear that you will,
according to your best abilities, accurately
and impartially record the proceedings of
the court, and the evidence to be given
in the case in hearing: So help you God."

The witnesses shall take the same oath
as witnesses sworn before a court-martial.

Art. 94. When any commissioned offi-
cer shall die or be killed in the service of
the United States, the major of the regi-
ment, or the officer doing the major's duty
in his absence, or in any post or garrison,
the second officer in command, or the as-
sistant military agent, shall immediately
secure all his effects or equipage, then in
camp or quarters, and shall make an in-
ventory thereof, and forthwith transmit
the same to the office of the depart-
ment of war, to the end that his executors or
administrators may receive the same.

Art. 95. When any non-commissioned
officer, or soldier, shall die, or be killed in
the service of the United States, the the-
commanding officer of the troop, or com-
pany, shall, in the presence of two other
commissioned officers, take an account of
what effects he died possessed of, above
his arms and accoutrements, and transmit
the same to the office of the depart-
ment of war; which said effects are to
be accounted for, and paid to the repre-
sentatives of such deceased non-commis-
sioned officer or soldier. And in case any
of the officers, so authorised to take care
of the effects of deceased officers and soldiers,
should, before they have accounted to their
representatives for the same, have occasion
to leave the regiment, or post, by
preterm or otherwise, they shall, before
they be permitted to quit the same, de-
posit in the hands of the commanding officer,
or of the assistant military agent, all the
effects of such deceased non-commissioned
officers and soldiers, in order that the
same may be secured for, and paid to, their
respective representatives.

Art. 96. All officers, conductors, gun-
ers, matrosses, drivers or other persons
whosoever, receiving pay or hire in the
service of the artillery or corps of engineers
of the United States, shall be governed by
the aforesaid rules and articles, and shall
be subject to be tried by courts-martial,
in like manner with the officers and sol-
diers of the other troops in the service of
the United States.

Art. 97. The officers and soldiers of
any troops, whether militia or others, be-
ing mustered and in pay of the United
States, shall, at all times, and in all places,
when joined or acting in conjunction with
the regular forces of the United States, be
governed by these rules and articles of
war, and shall be subject to be tried by
courts-martial, in like manner with the
officers and soldiers in the regular forces,
save only that such courts-martial shall be composed entirely of militia officers.

Art. 98. All officers, serving by commission from the authority of any particular state, shall on all detachments, courts-martial, or other duty, where they may be employed in conjunction with the regular forces of the United States, take rank, next after all officers of the like grade in said regular forces. Notwithstanding the commissions of such militia or state officers may be elder than the commissions of the officers of the regular forces of the United States.

Art. 99. All crimes not capital, and all disorders and neglects which officers and soldiers may be guilty of, to the prejudice of good order and military discipline, though not mentioned in the foregoing articles of war, are to be taken cognizance of by a general or regimental court-martial, according to the nature and degree of the offence, and be punished at their discretion.

Art. 100. The president of the United States, shall have power to prescribe the uniform of the army.

Art. 101. The foregoing articles are to be read and published once in every six months, to every garrison, regiment, troop or company, mustered or to be mustered in the service of the United States, and are to be duly observed and obeyed, by all officers and soldiers who are or shall be in service.

Sec. II. That in time of war all persons not citizens of, or owing allegiance to the United States of America, who shall be found lurking as spies, in or about the fortifications or encampments of the armies of the United States, or any of them, shall suffer death, according to the law and usage of nations, by sentence of a general court-martial.

Sec. III. That the rules and regulations, by which the armies of the United States have heretofore been governed, and the resolves of congress thereunto annexed, and respecting the same, shall henceforth be void and of no effect, except so far as may relate to any transactions under them, prior to the promulgation of this act, at the several posts and garrisons respectively, occupied by any part of the army of the United States.

LAY. To lay down, implies to resign, as, the enemy laid down their arms; he means to lay down his commission.—To lay for, is to attempt something by ambuscade.

LAZARET, Fr. those large houses are so called which are built in the neighborhood of some sea-ports belonging to the Levant, for the purpose of lodging the sick and the wounded, that are ordered to perform quarantine.

LAZARETTO, the same as lazaret.

LAZARUS, was a military order instituted at Jerusalem by the Christians of the west, when they were masters of the Holy Land, who received pilgrims under their care and guarded them on the roads from the insults of the Mahommedans. This order was instituted in the year 1119, and confirmed by a bull of Pope Alexander IV. in 1215, who gave it the rule of St. Augustine.

LEAD, a metal well known. It is employed for various mechanical uses; as in thin sheets for covering buildings, for pipes, pumps, shot, bullets, windows, for dry kinds of large vessels for evaporation, and many other purposes.

LEADER. See Commander.

LEAD IN, to enter upon duty, or to be absent from a post or quarters for any specific period.

LEAD OF A COLUMN, the front man of a battalion or company, standing two or three deep.

LEAD IN STRAITS, to begin to enter upon duty, or to be absent from a post or quarters for any specific period.

LEADING-COLUMN, the first column that advances from the right, left, or centre of an army or battalion.

LEADING-FIELD, the first men of a battalion or company, that march from right, left, or centre, in files. Black Leading-Field, the first man on the right, and the last man on the left of a battalion, company, or section, are so called.

Creste Leading-Field, the last man of the right centre company, division, or section; and the first man of the left centre company, division, or section, are so called, when the line files from the centre to the front or rear. At close order, the colors stand between them.

LEAGUE, in military history, a measure of length, containing more or less geometrical paces, according to the different usages and customs of countries. A league at sea, where it is chiefly used by us, being a land measure mostly peculiar to the French and Germans, contains 3000 geometrical paces, or 3 English miles.
General Leave, an indulgence which is annually granted on home service, by the commander in chief, to a certain proportion of the army, to be absent from military duty. This generally occurs in the winter months, and ends on the 10th of March, and in time of peace only.

The number of legions kept in pay together was different, according to the various times and occasions. During the free state, four legions were commonly fitted up every year, and divided between the consuls; yet in cases of necessity, we sometimes meet with no less than 19 or 18 in Livy.

Augustus maintained a standing army of 25 (or as some will have it) 27 legions; but in aftertimes we seldom find so many. They borrowed their names from the order in which they were raised, as primae, secundae, tertii, &c. but because it usually happened, that there were several primae, secundae, &c. in several places, upon that account they took a sort of surname besides, either from their emperors who first constituted them, as Augustus, Claudiana, Galbiana, Flavia, Julia, Trajana, Antoniana, or from the provinces which had been conquered chiefly by their valor, as Thebarchia, Scythica, Gallica, Arabica, &c. or from the particular duties for whom their commanders had an especial honor, as African and Appollinaris; or from the region where they had their quarters, as Cremonis, Cynara, Britannica, &c. or sometimes upon account of the lesser accidents, as Adjutrix, Martia, Fulminatrix, Rapax, &c.

The whole Roman infantry, which was divided into four sorts, Velites, Hastati, Principes, and Triarii, consisted of Mani­folds, Cohorts, and Legions. So that legion was considered as the largest establishment for foot soldiers. See Kennett's Ant. of Rome, pages 195, 191.

Martial Saxe has written at some length, respecting legion.

Legion, in a general acceptation of the term, signifies any large body of men. In a more confined one among the moderns, it applies to a specific number of horse and foot, who are distinguished by that name, and do duty with the rest of the army. Such for instance was the British legion which served in America; and of this description were the Polish and Beige legions, that formed part of the French army in the early part of the re­volution. The French armies now form corps d'armes, which are in fact legions; and of 20 to 30,000 men each.

Legionary, any thing appertain­
ties, under the command of subaltern officers, within a certain time, and on special occasions. Such forms the alphabet, empowering any officer or individual to make reprisals for wholesome and partial addition to the regular outposts of the infantry.

To lengthen the step, in a military sense, means to stride out.

To let in, to admit; as he for some of the enemy's advanced parties in, or into the camp, &c.

To let off, to discharge.

To let off a pistol or musquet, to fire either of those fire arms.

Letter of mark, a letter granted to a ship's captain empowering him to make reprisals for what was formerly taken from him, by ships of another state, contrary to the law of war. See Mark.

Letter of mark, a commission granted to the commander of a merchant ship or privateer, to cruise against, and make prizes of the enemy's ships and vessels, either at sea, or in their harbors.

Letter of service, a written order or authority issued by the secretary at war, empowering any officer or individual to raise the body of men to serve as soldiers, within a certain time, and on special conditions.

Let in, in its general acceptance, a character such as forms the alphabet, or any thing written, such as an epistle, &c.

Letter of attorney, an instrument in writing, authorizing an attorney, or any other person, to take the affairs of another in trust. A letter or power of attorney is necessary to empower a person to receive the half-pay of an officer. This should be accompanied by a certificate sworn to by the officer before some magistrate or justice of the peace.

Letter of credit, a letter which is given from one merchant or banker to another, in favor of a third person, enabling the latter to take up money to a certain amount. Sometimes a letter of credit is given without any specific limitation.

Letter of licence, a deed signed and sealed by the creditors of a man, by which he is allowed a given period to enable him to discharge his debts by instalments, or by a certain proposition in the pound.

Letter men, certain pensioners belonging to Chelsea hospital, are so called.

Letter son, in its general acceptance, a character such as forms the alphabet, or any thing written, such as an epistle, &c.

Letters de cachet, Fr. an infamous state paper, which existed before the French revolution, differing in this essential point from an order of the British privy council, that the former was sealed, and the person upon whom it was served, carried into confinement without even seeing the authority by which he was hurried off in so peremptory a manner, or being taken afterwards for any specific offence; whereas the latter is an open warrant, which, (except when peculiar circumstances occasions a suspension of the habeas corpus act,) has its object closely investigated before a jury. The French lettre de cachet was written by the king, countersigned by one of his principal secretaries of state, and sealed with the royal signet.

Letters de service, Fr. See Letters of service.

Letters de passe, Fr. a paper signed by the kings of France, authorizing an officer to exchange from one regiment into another.

Letters de créance, ou qui porte créance, Fr. A letter of credit. It likewise signifies the credentials which an ambassador presents from his government to a foreign court.

Letters de récérence, Fr. a letter which an ambassador receives from his government, by which he is recalled from a foreign court.

Letters en ébifres, Fr. Cyphers, Baron Espagnac in the continuation of his Essai sur l'opération de la guerre, tom. 6, page 269, gives the following instructions.
relative to this acquirement. He observes that writing in cypher may be practised in two different ways. First by means of distilled vinegar, which is boiled with silver litharge, one ounce of the latter to a pint of the former. When this mixture has stood some time, it must be carefully poured off from the sediment, and it will appear as clear as rock water. Intelligence or information may be conveyed by writing with this water in the blank spaces of an ordinary letter, on wrapping paper, or on the blank leaves of a book. The instant the writing dries, not the least trace appears of what has been marked. To render the writing legible, you must make use of a water in which quick lime has been dissolved with a mixture of orpiment. This water is as clear as rock water; and if you steep a sheet of paper in it, and lay it upon the letter, book, &c. on which any thing has been written, the different characters will instantly appear.

The first of these distilled liquids is so powerful and searching, that by putting the written letter upon several other sheets of paper, after having rubbed the top sheet with the second water, the word will be clearly seen in almost all of them. The same circumstance will occur, if you rub the leaf of a book or a piece of paper which you may spread upon it. These waters, especially the last, should be kept in bottles that are well corked up, to prevent the spirituous particles from evaporating. A fresh composition must, indeed, be made, if the old one should seem weakened. The letters written with these waters likewise be carefully pencilled, and kept free from blots, &c. The paper must not be turned, nor rubbed with the hand until the writing be thoroughly dry. This is the author's first proposed mode of writing in cyphers, the second may be seen in page 270 of the work already quoted.

LETTRES de reproductibles, Fr. Repri­elts. See LETTERS of marquee.

LETTRES de santé, patentes de santé, Fr. letters of health.

LEVANT, the countries bordering upon the Mediterranean are so called. It appears to be derived from le vent, the wind, or country to windward, in relation to Italy.

LEVANTINE, Fr. A word generally used among the French to distinguish any person from the Levant.

LEVANTINE nations, (Nations Levantine, Fr.) Nations belonging to the East, or to those countries which border on the Mediterranean. The French likewise say, Peuples Levantins.

LEVANTIS, Fr. The soldiers belonging to the Turkish galleys are so called.

LEVÉE des Trenches, See LEVY.

LEVÉE en Masses, Fr. A general rising of the people of any country, either for the purposes of self defence, or to answer the intentions of its governing powers.

LEVEL d'une siege, Fr. The raising of a siege. See SIEGE.

LEVEL, an instrument to draw a line parallel to the horizon, whereby the difference of ascent or descent between several places may be found, for conveying water, draining fields, &c.

Air-Level, that which shows the line of level by means of a bubble of air, enclosed with some liquid, which a glass tube of an indeterminate length and thickness, whose two ends are hermetically sealed. When the bubble fixes itself at a certain mark, made exactly in the centre of the tube, the plane or ruler wherein it is fixed is level; when it is not level, the bubble will rise to one end. This glass tube may be set in another of brass, having an aperture in the middle, whereby a bubble of air may be observed. There is one of these instruments with sights, being an improvement upon the last described, which by the addition of more apparatus, becomes more commodious and exact: it consists of an air-level about eight inches long, and 7 or 8 lines in diameter, set in a brass tube, with an aperture in the middle: the tubes are carried in a strong straight ruler, a foot long, at whose ends are fixed two sights, exactly perpendicular to the tubes, and of an equal height, having a square hole, formed by two fillets of brass crossing each other at right angles, in the middle whereof is drilled a very little hole, through which a point on a level with the instrument is described; the brass tube is fastened on the ruler by means of two screws, one whereof serves to raise or depress the tube at pleasure, for bringing it towards a level. The top of the ball and socket is riveted to a little ruler that springs, one end whereof is fastened with screws to the great ruler, and at the other end is a screw serving to raise and depress the instrument when nearly level.

Artillery Foot-Level, is in form of a square, having its two branches or legs of an equal length, at the angle of which is a small hole, whence hang a line and plummet, playing on a perpendicular line in the middle of a quadrant: it is divided into twice 45 degrees from the middle.

Cannon's Level, for levelling pieces of artillery, consists of a triangular brass plate, about 4 inches, at the bottom of which is a portion of a circle divided into 45 degrees; which angle is sufficient for the highest elevation of cannons, mortars, and howitzers, and for giving shot and shells the greatest range: on the centre of this segment of a circle is screwed a piece of brass, by means of which it may be fixed or screwed at pleasure; the end of this piece of brass is made so as to serve for a plummet and index, in order to show the different degrees of elevation of pieces of artillery. This instrument has also a brass foot, to set upon cannon or mortars,
so that when these pieces are horizontal, the instrument will be perpendicular. The foot of this instrument is to be placed on the piece to be elevated, in such a manner, as that the point of the plummet may fall on the proper degree, &c.

The most curious instrument for the use of the artillery, was lately invented by the very ingenious colonel Congreve, of the British artillery; having the following qualifications, viz. 1. It will find the inclination of any plane, whether above or below the horizon. 2. By applying it either to the cylinder, or outside of any piece of ordnance, angles of elevation or depression may be given to the 60th part of a degree; with less trouble than the common gunner’s quadrant, which only gives to the 4th part of a degree. 3. It will give the line of direction for laying either guns or mortars to an object above or below the horizon. 4. It will find the longitude of sight given for directing a piece of ordnance, angles of elevation or depression for cutting fuzes by. 6. It answers all the purposes of a protractor, by which the water is to come. Place the centre of the quadrant on the top of the last pole, the plummet hanging free;spy through the sights at the top of the pole in the water, and if the thread cuts any degree of the quadrant, the water may be conveyed by a pipe laid in the earth. If you cannot see from one extreme to the other, the operation may be repeated.

**Levelling.**—Table showing the difference between the true and apparent level.

<table>
<thead>
<tr>
<th>Distance</th>
<th>Difference of Level</th>
<th>Difference of Level</th>
<th>Difference of Level</th>
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</thead>
<tbody>
<tr>
<td>100</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>200</td>
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<tr>
<td>300</td>
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<td>36</td>
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<tr>
<td>1000</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>

The common methods of levelling are sufficient for laying pavements of walks, for conveying water to small distances, for placing horizontal dials, or astronomical instruments; but in levelling the bottoms of canals or ditches in a fortification, which are to convey water to the distance of many miles, the difference between the apparent and true level must be taken into the account.

Dr. Halley suggests a method of levelling, which is performed wholly by the barometer, in which the mercury is found to be suspended to so much the less height, as the place is more remote from the centre of the earth. Hence it follows, that the different height of the mercury in two places gives the difference of level.

Mr. Derham, from some observations at the top and bottom of the monument in London, found that the mercury fell 1-inch of an inch at every 84 feet of perpendicular ascent, when the mercury was at 30 inches. Dr. Halley allows of 1-inch of an inch for every 30 yards; and considering how accurately barometers are now made, we think this method sufficiently exact to take levels for the conveyance of water, or any other military purposes, and indeed less liable to errors than the common levels. Mr. Derham also found a difference of 3 inches, both between the height of the mercury at the top and bottom of Snowdon hill in Wales.

For the common occasions of levelling, set a pole upright in a spring, pond, &c. and mark how many feet and inches are above water; then set up another pole of equal length with the other, in the place to which the water is to come. Place the centre of a quadrant on the top of the last pole, the plummet hanging free; spy through the sights at the top of the pole in the water, and if the thread cuts any degree of the quadrant, the water may be conveyed by a pipe laid in the earth. If you cannot see from one extreme to the other, the operation may be repeated.
This table will answer several useful purposes.

First.—To find the height of the apparent object above the true, at any distance. If the given distance be contained in the table, the correction of level is found in the same line with it; but if the exact distance be not found in the table, then multiply the square of the distance in yards, by 2, 3, 4, 5, 6, &c., and divide by 1,000,000, or cut off five places on the right for decimals; the rest are inches; or multiply the square of the distance in miles, by 66 feet 4 inches, and divide by 100.

Second.—To find the extent of the visible horizon, or how far can be seen from any given height, on a horizontal plane, at sea, &c. — The height of the observer’s eye above the horizon being known, the extent of his visible horizon is found in the column opposite, under the word Distances.

Third.—To find the distance of any object when it first comes in sight, its height being known. — For the distance of any object will be the extent of the visible horizon of the observer, added to the visible horizon of the point he observes. It is necessary in this case for the observer to know only the height of that part of the object which is kept from his view, by the curvilinear figure of the globe. — Knowing the distance of an object, its height may be found in the same manner.

If the height or distance exceed the limits in the table, then, first, if the distance be given, divide it by 2, 3, 4, or 5, till the quotient comes within the distances in the table, then take out the height answering to the quotient, and multiply it by the square of the divisor for the height required. But when the height is given, divide it by one of these square numbers, 4, 9, 16, 25, &c. till the quotient come within the limits of the table, and multiply the quotient by the square root of the divisor.

Levelling sheets, instruments used in levelling, that carry the marks to be observed, and at the same time measure the heights of those marks from the ground. These usually consist of two wooden square rulers, that slide over one another, and are divided into feet, inches, &c.

Levelling has two distinct applications in the art of war, in the one case it implies the reduction of an uneven surface to that of a plane, so that the works of a fortification may be of a correspondent height or figure throughout. The other is the art of conveying water from one place to another; in this process, it is found necessary to make an allowance between the true and apparent level, or in other words, for the figure of the earth, for the true level is not a straight line, but a curve which falls below the straight line about 8 inches in a mile, 4 times in 3 miles, 9 times in 5 miles, 16 times in 3 miles, 10 times in 4 miles, always increasing with the square of the distance.

Levelling System, a term which since the commencement of the French revolution has been grossly misinterpreted, and cannot be found in any civilized country to answer any other purpose than that of delusion; such was the calumny raised by the patriots of Rome, when they had plundered the soldiers of their lands and appropriated to themselves; when the people complained they were thus reproached, the agrarian law which proposed only to restore the lands to the owners, was called a levelling system. But the people were robbed and the consequence was the ultimate ruin of Roman liberty, and Rome itself; the word Jacobin in modern times has superseded leveller.

Levee, a balance which rests upon a certain determinate point called a fulcrum.

Lever, in mechanics, an inflexible line, rod, or beam, movable about, or upon a fixed point, called the prop or fulcrum, upon which one end, with the weight to be raised, at the other end is the power applied to raise it; and the hand, &c.

Since the momentum of the weight and power are as the quantities of matter in each, multiplied by their respective velocities, and the velocities are as the distances from the centre of motion, and also as the spaces passed through in a perpendicular direction in the same time, it must follow, that there will be an equilibrium when the weights and powers are as the quantities of matter in each, multiplied by their respective velocities.

Levee, the blast of a trumpet.

Levet, the blast of a trumpet.

Leviers, f. Levers. The French writers having been more explicit on this point than any of our lexicographers, we shall extract the following passages as conducive to general information. The lever or lever is an instrument made of wood or iron, by whose means the heaviest weights may be raised with few hands. When the lever is made of iron, it is called pince or crow. The lever may be considered as the first of all machines. Wheels, pulleys, capstans, &c. act only by the power it possesses. The lever must be looked upon as a straight line, which has three principal points, namely, the one on which the load is placed, and which is to be raised, the appui or rest which is the centre round which it turns, and which the French mechanics call orgueil, and lastly the human arm, which is the power that puts the lever into motion. The different arrangements or disposition which is given to these three points, or rather the unequal distances at which they are placed, occasion the force that is collectively displayed.

Belidor makes the following remarks on
this useful machine. It is an inflexible bar which must be considered as having no weight in itself, upon which three powers are made to act in three different points in such a manner, that the action of two powers must be directly opposed to the one that results from them. The point where the opposing power acts is called the point d’appui.

LEVIER, in artillery, a wedge.

LEVIER de pointage. Fr. a wedge to assist in painting pieces of ordnance.

LEVIER DE SOUTIEN, Fr. a wedge by which cannon is raised to a certain line of direction.

LEVY,-has three distinct military acceptations, as to levy or raise an army, to levy or make war; and, to levy contributions.

LEVY, the levying, or raising troops, by enrolling the names of men capable of bearing arms, for the common defence and safety of a country, has from time immemorial been a leading principle among nations.

There are indeed some people still existing, who indiscriminately go to war, leaving, for the immediate security of their homes or habitations, only their old men, their wives and children.

Among the Romans, however, and in some other civilized countries, it was a prevailing maxim never to employ above a certain proportion of matured population, and that proportion consisted uniformly of men who were expert at arms.

National assemblies were called together whenever the situation of the country required, that the senate's decree should be published and put into effect.

The levying or raising of troops for service was regulated in the following manner under two specific heads, called ordinary and extraordinary levy. The ordinary levy took place in consequence of the senate's decree, on whose three parts the names of men were enrolled.

All the different tribes into which the inhabitants of the country were divided, assembled in places marked out for that purpose, and as soon as a whole tribe, consisting of males only, had entered, the public orator called over, in a distinct and audible manner, the names of four persons, after which the first military officer, from among those of that rank who were to command the intended legion, selected one out of the four, and had him enrolled.

The orator then called over the names of four others belonging to the same class, and the second tribune selected one from the four in the same manner as the first had done. This selection went on through the different classes, until the whole tribe was drafted, and another tribe was then subjected to the same rotation. Legions were formed out of these levies, and completed to so effective a strength, that three of them generally composed a Roman army. The Romans rigidly submitted to these calls of the state; and they did so the more cheerfully, because it was a fundamental rule amongst them, that no man could be provided for in a military or civil way, unless he had served a prescribed number of years.

Kennett, in his antiquities of Rome, gives the following account, which the reader will perceive differs in some particulars from the former.

"At the same time of the year as the consuls were declared elect or designed, they chose the military tribunes; fourteen out of the body of the Equites who had served in the army five years, and ten out of the commons, such as had made ten campaigns. The former they called urbani juniors, and the latter seniors.

The consuls having agreed on a levy (as in the time of the commonswealth they usually did every year,) they issued out an edict, commanding all persons who had reached the military age (about seventeen years) to appear (commonly) in the capitol, or in the area before the capitol, or in the most sacred and august place, on such a day. The people being come together, and the consuls who presided in the assembly having taken their seats, in the first place, the four and twenty tribes were disposed of according to the number of legions they designed to make up, which was generally four. The junior tribunes were assigned, four to the first legion, three to the second and last. After this, every tribe, being called out by lot, was ordered to divide into their proper centuries; out of each century were taken soldiers cited by name, with the accoutrements to their estate and class; for which purpose, there were tables ready at hand, in which the name, age, and wealth of every person were exactly described. Four
making the levies in the manner already described.

However, upon any extraordinary occasion of immediate service, they omitted the common formalities, and with much distinction, listed such as they met with, and led them out on an expedition. These they called *Milites Subiasti*. Kennett's Ant. page 183, b. iv.

The French always followed the example of the Romans with regard to the first principles of levying men, which was effected by a proclamation from the court, called *the law*. This ban was addressed to the principal person belonging to the state, who, in pursuance to its instructions, assembled his vassals, and got them fit and ready for immediate service.

In England a similar rotation took place; and the balloting for militia-men still exhibits some remains of that feudal system. But when regular armies became necessary in Europe (necessary only from the ambition of contiguous and rival nations); the different system was adopted, and the natural strength of the country was made a secondary object. Disposable means of offence and defence were resorted to by crowned heads; and as war became a science, permanent bodies of armed men were kept on foot to answer the purposes of prompt and vigorous decision.

Charles VIII. was the first monarch among the French who dispensed with the service of his noblemen, in themselves and vassals; these he replaced by raising regular companies of gentlemen, who were paid out of his privy purse; in process of time cavalry and infantry regiments, with appropriate trains of artillery, &c. were formed into a military establishment, and have continued ever since.

During the existence of the old government in France, it was customary for the king to issue orders that a certain bounty should be offered to all recruits who would enlist, and when regiments, in time of war, suffered materially, men were frequently drafted out of the militia to complete their establishment.

With respect to the standing or permanent army of England, the first traces of it are to be found during the reign of Henry VII; from that period until the present time the military establishment of Great Britain has been progressive. Levies have been made in various ways, upon various principles.

The French system of conscription is the most profound and perfect that has ever been devised; no man is exempted. And in this respect it is the only system in its principle adapted to a free state, where all individuals having equal rights, have also corresponding duties and obligations.
any longer keep the field owing to the severity of the weather. In former times it was usual, during the continuance of a war, for the French army to retire into winter quarters about the latter end of October. But since the revolution, hostilities have been carried on at all seasons, and under the most disheartening pressure of the weather.

LIEUTENANT. This word is originally derived from the Latin legatus, legate, and comes immediately to us from the French licenten, supplies or holding the place of another. In a military sense it means the second person or officer in command. Lieutenant-general, the next in command to a general; lieutenant-colonel, the next to a colonel; captain-lieutenant, an intermediate rank; and lieutenant, the next to a captain, in every company of both foot and horse, who takes the command upon the death or absence of his superior officer. Further corps, grenadiers, and light infantry, in the British service, have second lieutenants and no ensigns, a very absurd distinction.

LIEUTENANT of artillery. In the British service each company of artillery has 4; 1 first and 3 second lieutenants. The first lieutenant has the same detail of duty with the captain, because in his absence he commands the company: he is to see that the soldiers are and keep that their clothes, arms, and accoutrements are in good and serviceable order; and to watch over everything that may contribute to their health. He must give attention to their being taught their exercise, see them punctually paid, their messes regularly kept, and visit them in the hospitals when sick. He must assist at all parades, &c. He ought to understand the doctrine of projectiles and the science of artillery, with the various effects of gunpowder, however managed or directed. He should likewise be able to construct and dispose batteries to the best advantage; to plant cannon, mortars, and howitzers, so as to produce the greatest annoyance to an enemy. He is to be well skilled in the attack and defence of fortified places, and to be conversant in arithmetic, mathematics, and mechanics, &c.

Second LIEUTENANT, in the artillery, is the same as an ensign in an infantry regiment, being the youngest commissioned officer in the company. It is his duty to assist the first lieutenant in the detail of the company. His other qualifications should be the same as those required in the first lieutenant.

LIEUTENANT of engineers. See Engineers.

LIEUTENANT-colonel. See Colonel.

LIEUTENANT-general. See General.

LIEUTENANT du Roi, Fr. During the monarchy of France there was a deputy governor in every fortified place, or strong town, who commanded in the absence of the governor, and was a check upon his conduct when present. This person was called Lieutenant du Roi.

LIEUTENANT Reduced, (Lieutenant Reduit, Fr.) he whose company or troop is broken or disbanded, but who continued in whole or half pay, and still preserves his right of seniority and rank in the army.

LIEUTENANT de la Colonelle, Fr. The second officer, or what was formerly styled the captain lieutenant of the colonel's company of every infantry regiment, was so called in France.
LIEUTENANT-GÉNÉRAL DE L'ARMÉE

The lieutenants of the Garde nationale, Fr. lieutenants, belonged to the French and Swiss guards. During the existence of the monarchy in France they bore the rank of lieutenant-colonel, and took precedence of all captains.

Lieutenant-colonels, Fr. were certain officers belonging to the old French service, and immediately attached to the artillery, who bore the title of a man of the particular province in which they were stationed. The majority of these officers were employed in the ordnance department; another part served under different artillery departments upon the frontiers. Some were excused from all duty on account of their age and seniority.

Several provincial lieutenants, who had military employment under the board of ordinance, received the rank of lieutenant-general in the army from the king, and could rise to the most exalted stations in common with other officers.

Lieutenant-General, Fr. The title and rank of lieutenant-general was of a more desultory nature in France under the old government of that country, than in other countries. High officers of justice were distinguished by the same; and all governors of provinces, as far as their jurisdiction extended, together with the persons who acted under them, were called lieutenant-généraux. There were likewise persons who bore the title of lieutenant-general of the kingdom at large. Every officer, moreover, that acted immediately under a general, and was next to him in rank, was styled lieutenant-general. It is the same, in this respect, in England. In both countries, however, considering the subjects as apprentices to a monarchical institution, the title of general was only ostensible and honorary, as his functions were delegated to him by his sovereign, the real general and head of the army. So that intrinsically a general could only be considered as lieutenant-general to the king; but the lieutenant-general who acts under him, must be viewed as holding a relative rank inferior to both.

The words of the two commissions sufficiently explain our observation. They are as follow for a lieutenant-general with the nominal rank of general—We have made and constituted N., our lieutenant-general, &c., and for those acting under him—We have made and constituted N., one of our lieutenant-generals. Which plainly indicates, that of the first class there can only be one who represents his sovereign; whereas there are and may be many of the other description. Lieutenant-generals, in the French service, did not receive any pay, in consequence of the rank they bore, unless they actually commanded some part of the army, and received a commission from the king for that purpose. This commission was renewed annually, according to his majesty's pleasure.

Lieutenant-General of the Ordnance.

Lieutenant-General des Armes Nationales du Roi, Fr. an officer in the old French service, belonging to the naval department. He took rank of all others d'escadre, or commodores, and issued orders through them to inferior officers.

Lieutenant-Général de l'Armée

LIGHT INFANTRY, an active, strong body of men, selected from the augments of battalion companies, and made up of the most promising recruits.

When the light infantry companies are in line with their battalions, they are to form and act in every respect as a company of the battalion; but when otherwise disordered, they may loosen their files to six inches.

The open order of light infantry is usually two feet between each file.

The files may be extended from right, left, or centre; in executing it, each front rank man must carefully take his distance from all duty on account of their age and seniority.

All mounted soldiers, that are lightly armed and accoutered for active and desultory service, may be considered under this term. Thus light dragoons, hussars, mounted riflemen, &c., are strictly speaking light horse.

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The arms of light infantry in general are carried sloped, when the bayonets are fixed. Flanking or advanced parties, however, or parties in particular situations, may carry them trained, and without bayonets, for the purpose of taking a more cool and deliberate aim.

When the light infantry is ordered to cover the line to the front, the divisions will move from their inner flanks round the flanks of the battalions, and when at the distance of fifty paces, the leading flanks will wheel towards each other, so as to meet opposite the centre of the battalion, opening their files gradually from the rear, so as to cover the whole extent of the battalion.

The files are not to wait for any word of command, but to halt and form themselves. In this position, and in all positions of extended order, the post of the officer commanding is in the rear of the centre, and the movements are to be regulated by the company belonging to the battalion, which governs those of the line. See Am. Unit Lib.

Light infantry men, like hussars, are frequently detached to act as scouts on the flanks, in the front, or with the rear guard of the body of troops to which they belong. They then acquire the appellation of skirmishers, and being previously told off for that specific duty, they advance and form in the front in rank entire; which is effected by each man from the rear rank placing himself on the left of his file leader. The rank entire may be resorted to for various purposes during the movements of one or more battalions, since it may serve not only to cover them from the enemy's observation, but in some cases, especially in foggy weather, will itself appear a larger body than it really is. Too much attention cannot be given to the organization of light troops on foot. They are very properly called the eyes of an army, and ought always to be considered as indispensably necessary.

LIGHT TROOPS. By light troops are generally meant all horse and foot which are accounted for detached service. LIGNE, Fr. See LINE.

LIGNE d'Eau, Fr. a term used in aquatics. It is the hundredth and fortieth portion of an inch of water, and furnishes one hundred and four pints of water, Paris measure, in twenty four hours.

LIGNE de moindre résistance, Fr. is the line that being drawn from the centre of the fourreau or chamber of a mine, runs up in a perpendicular direction to the nearest outward surface.

LIGNES en forme de Croimaille, Fr. Indented lines, or lines resembling the teeth of a saw, or stairs; they are connected with one another like crotchets; or united by small flanks comprising fourteen or fifteen toises each. M. de Clairac has given a particular account of their construction in his Ingenieur de Campagne.

The effect, observes that writer, which is produced by the concentrated fire that may be poured from these lines, is perhaps unexampled. One advantage is certain, that of being able to increase your efforts of defence, in proportion as the enemy advances; since it must be evident, that constructed as the flanks are, and encasing one another, the execution becomes multiplied in every quarter. It may moreover be stated among other advantages, that as the salient points are double in number, and are flanked within half a distance of musquet shot, without stretching far into the country, they must of course be less exposed to the enemy's approaches. From the figure of these lines the troops are enabled to keep up an uninterrupted and regular direct fire; and it is the only construction from which an equal discharge of ordnance or musquetry may be served in every quarter at once.

LIMBER, in artillery, a two-wheel carriage with shafts to draw the trail of travelling carriages by means of a pindle or iron pin, when travelling, and taken off on the battery, or when placed in the park of artillery; which is called unlimbering the guns.

LIME, an military architect, is made of all kind of stones, that will calcine: that which is made of the hardest stone is the best, and the worst of all that which is made of chalk.

Lime will not be sufficiently burnt in less than 60 hours. The sign of well burnt lime are, that its weight is to that of the stone in a sequalterate proportion; that it be white, light, and porous; that when slaked, it sticks to the sides of the vessel, sending forth a copious thick smoke, and requires a great deal of water to make it.

In some countries, as the East Indies and the United States, they make good lime of shells of fish, which dries and hardens in a very short time; and when it is mixed with Dutch torrs, is fit for all kind of aquatic works.

Lime should always be burnt with coals, and never with wood, the coals being strongly impregnated with sulphurous particles, which, mixed with the lime, make it more adhesive. See MORTAR.

LIMINALARQUE, Fr. an office of distinction, which existed in the Roman empire. The persons invested with it were directed to watch the frontiers of the empire, and they commanded the troops that were employed upon that service.

LIMITARY, a guard or superintendent, placed at the confines or boundaries of any kingdom or state.

LIMITS, in a military sense, is that distance which a sentry is allowed on his post, namely 50 paces to the right, and 50 paces to the left.

LINCH-pin, in artillery, that which passes through the ends of the arms of art.
axle-tree, to keep the wheels or trucks from slipping off in travelling.

LINE. In artillery, the flat iron under the end of the arms of an axle-tree, to strengthen them, and to diminish the friction of the wheels.

LINDEN TREE. The wood used in artificial fire-works, &c.

LINE, in geometry, signifies length, without any supposed breadth or depth. A straight or right line is the shortest way from one point to another. A curved or crooked line is that which deviates from the shortest way, and embraces a greater space between one point and another. A perpendicular line is a straight line, which falling upon another line does not incline either to one side or the other. Parallel lines are lines which are at equal distances from one another, in such a manner, that although they may be prolonged ad infinitum, they never can meet.

Euclid's second book treats mostly of lines, and of the effects of their being divided, and again multiplied into one another.

Horizontal LINE is that which is spread upon the plane of the horizon; such, for instance, are those lines that may be supposed to form the level surface of a plain. Inclined LINE, (ligne inclinée, Fr.) is that line which leans or is raised obliquely upon the plane of the horizon, and which might resemble the sloping or declivity of several movements, and to enable them to artificul fire-works, &c. try which compose it, may not be cut off, being extended from a straight line, which, without intersecting ground that is occupied by the battalions from one point to another. A straight or right line serves, as a general rule, that the intervals of the several corps from one another, in such a manner that the first, although the direct march of the line of battle, are left it order to facilitate their movements, and to enable them to resemble the sloping or declivity of several movements, and to enable them to charge the enemy without being exposed to confusion and disorder. It must be observed, as a general rule, that the intervals or spaces which are between each battalion and squadron belonging to the second and the first, in order that the first line, on being forced to fall back, may find sufficient ground to rally upon, and not endanger the disposition of the second line, by precipitately crowding on it.

Each line is divided into right and left wings. Each wing is composed of one or more divisions. Each division is composed of one or more brigades. Each brigade is formed of two, three, or four, or more battalions.

Battalions are formed in line at a distance of twelve paces from each other, and this interval is occupied by two or more cannon, which are attached to each battalion. There is no increased distance between the battalions, unless particular circumstances attend it. In exercise, should there be no cannon between the battalions, the interval may be reduced to six paces.

LINE, true regulated. Its regulating body in movement is, in general, the battalion of that flank which is nearest to, and is to preserve the appui, or which is to make the attack. There are very few cases in which the centre ought to regulate, although the direct march of the line in front appears to be the easiest conducted by a battalion of the centre. It is the
flank, however, that must preserve the line of appui in all movements in front. If the line is thrown back ward or forward, it is generally on a flank point.

It may not be superfluous to remark, that the term is used to express a military disposition for battle, was not known until the sixteenth century. Before that period, when armies were ranged in order of battle upon three lines; the first line was called advanced guard, (avant garde,) the second, main body only, (corps de bataille,) and the third, rear guard, (arriere garde.) These terms are never used in modern times, except when any army is on the march; when drawn up for action, or in the field for review, column, or lines are substituted.

Lines of support are lines of attack, which are formed to support one another. Where there are several, the second should outflank the first, the third the second; the advanced one being thereby strengthened and supported on its outward wing.

Lines of march. The regular and tactical succession of the component parts of an army that is in motion.

Lines of march, are bodies of armed men marching on given points to arrive at any straight alignment on which they are to form. The general direction of each alignment is always determined before the troops enter it, and the point in that line at which their head is to arrive, must next beascertained. See Art. Milit.

The line is said to be well dressed, when no part is out of the straight alignment. 

That this may be effected, at the word dress, which is given by the commanding officer, it is immediately to commence from the centre of each battalion, the men looking to their own colors, and the corresponding officers lining them upon the colors of their next adjoining battalion.

Line shffing, is executed generally and independently by each battalion.

Inversion of the line, in formation. This is a manœuvre which ought only to be resorted to on the most urgent occasions, and it is prudent to avoid the inversion of all bodies in line. The inversion is effected by facing a battalion or line to the right about, instead of changing its position by a counter march; sometimes, indeed, it may be necessary to form a flank with its rear in front. The column with its line in front may arrive on the left of its ground, and be obliged immediately to change step and support that point, so that the right of the line will become the left. Part of a second line may double round on the extremity of a third, and thus to outflank an enemy. These, and various other movements, may be practised with safety and expedition by the inversion of the line.

Lines advancing to engage an enemy. According to Marshal Puységur, all lines should take the centre for the regulating point of movement, and not the right, as others have maintained. He grounds his opinion upon a known fact, that the more extended a line is, the more difficult it must prove to march by the right. By making the centre the directing portion of the line, more than half the difficulty is removed. To which it may be added, that the centre is more easily discernible from the right and left, than the right is within the observation of the left, or the left within that of the right.

When the line advances it must uniformly preserve a straight alignment, so that when it halts, the right and left may have to dress up; but this convexity must be strictly perceptible. Were the line to be conceived as approaching the enemy, a necessity would occur of throwing the wings back, perhaps even of putting several corps to the right about, during which operation the whole army might be endangered.

When lines are marching forward they must be occasionally halted, in which cases the centre halts first, and when the line is ordered to advance again, the centre steps off though in an almost imperceptible manner, before the right and left.

Each commanding officer must place himself in the centre of that portion of the line which he has under his immediate orders, unless he should be otherwise directed. The centre is always the most convenient point, from whence everything that passes on the right and left may be observed. When the line advances charging order, he must march at the head of the first or second of his divisions which are formed on his right and left.

The greater the extent of line proves, which is composed of several battalions and squadrons that advance forward with the same front, the more difficult will be the movement of the several bodies; but as we have already observed, a great part of this difficulty is overcome when the centre is made the directing body. The right and left must be invariably governed by it.

Retiring Line, are bodies of armed men that have advanced against an opposing enemy in order of battle, withdrawing themselves with regularity from the immediate scene of action. On this occasion it is of the greatest importance that the line should be correctly dressed before it faces to the right about; and the battalions will prepare for the retreat in the manner prescribed for the single one by receiving the caution, that the line will retire.

To form the line, in land tactics, is to arrange the troops in order of battle, or battle array.

To break the lines, to change the direction from that of a straight line, in order to obtain a cross fire.
Turning out of the line, in a military sense, the line turns out without arms whenever the general commanding in chief comes along the front of the camp.

In the British army the following is the usage:

When the line turns out, the private men are drawn up in a line with the bells of arms; the corporals on the right and left of their respective companies: the piquet forms behind the colors, with their accoutrements on, but without arms.

The sergeants draw up one pace in the form of the men, dividing themselves equally.

The officers draw up in ranks, according to their commissions, in the front of the colors; two ensigns taking hold of the colors.

The field officers advance before the captains.

The camp colors on the flanks of the parade are to be struck, and planted opposite to the bells of arms; the officers' expectations are to be planted between the colors, and the drums piled up behind them; the halleys are to be planted between, and on each side the bells of arms, and the hatchets turned from the colors.

Fall or close lines. Marshal Puysegur in his "Art de la Guerre" is in the advocate for full or close lines, in his disposition of the order of battle, provided the ground will admit it. He proposes, in fact, that the battalions of infantry and the squadrons of horse should form one continuity of line, without leaving the least interval between them.

Lines, in fortification, bear several names and significations; such as:

- Lines of circumvallation.
- Lines of counter-approach.
- Lines of defense.
- Lines of communication.
- Lines of circumvallation, &c.

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- Lines of circumvallation, &c.
Line of projectile. See Projectiles.
Line of least resistance, (ligne de moindre resistance, Fr.) that line, which being drawn from the centre of the furnace or the chamber of a mine, takes a perpendicular direction towards the nearest superficial exterior.

Line of fire, (ligne de feu, Fr.) in fortification. This term admits of two distinct acceptations; first, when it is found necessary to give an idea of the manner in which a rampart, or an entrenchment overtops and crosses any space of ground by the discharge of ordnance or musquetry, lines must be drawn to express the distances which have been traversed by the shot, &c. These lines are called lines of fire, being an abbreviation of those lines of direction which have been given to the shot.

In order to convey a more just and accurate conception of this species of line of fire, it is recommended to give a profile, which shall not only show the curves of the trajectories, but likewise point out the intersections and impressions which have been made by such fire upon a rampart, entrenchment, ground, or fortification of any description.

In the second place, all that extent of a rampart or entrenchment, from whence the shot of ordnance or musquetry is discharged, is understood to be a line of fire.

If, for instance, it were to be said that a reserve or oblique direction was taken against a long extent of rampart or entrenchment, by means of a jetee of any great work thrown up, or to out-flank or take it in the rear, it might be concluded that those points would be supplied with a long line of fire.

Line of direction, (Ligne de direction, Fr.) In mechanics any straight line drawn down which a heavy body descends. There are likewise lines of direction which relate to powers; they are then straight lines by means of which a power draws or urges on a weight for the purpose of supporting or moving it.

Capital line of the bastion, (Ligne capital de bastion, Fr.) a line which is drawn from the centre angle of a bastion to its flanked angle. In regular fortification this line cuts the bastion in two equal parts.

Lines of entrenchment, (Lignes retrouvées, Fr.) all lines which are drawn in front of a camp, &c. to secure it from insult or surprise are so called. Whenever an army is not sufficiently strong to run the hazard of being attacked, the general who commands it, must have the precaution to dig a ditch in front measuring three toises at least in breadth and two in depth. He must likewise throw up a parapet with redans, or have it flanked at intermediate distances by small bastions two toises thick, made of strong close earth, and get it covered and supported by fascines, with a bank and behind sufficient

ly high to cover the soldiers tents. If water can be got into the ditch from a neighboring stream or rivulet, an additional advantage will be derived from this circumstance. When the lines are constructed for any space of time, it will then be proper to make a covert-way in the usual manner.

Other lines are likewise constructed for the purpose of communicating with different quarters; great care must be taken lest any of them be exposed to the enemy's enfilade. To prevent this they must be supported by redoubts, or by works belonging to the neighboring forts; for the enemy might otherwise make good his ground within them, and use them as a trench.

If an army is so weak as to be within line, you take care to have communications between the villages, and small parties of light horse patrolling towards the enemy, and to have vedettes and sentries posted so near one another, that you may have intelligence of all their transactions.

Line in fencing, that part of the body opposite to the enemy, wherein the shoulders, the right arm, and the sword, should always be found; and wherein are also to be placed the two feet at the distance of 18 inches from each other. In which sense, a man is said to be in his line, or to go out of his line, &c.

Line, also denotes a French measure, containing 1.12th part of an inch. It is of late frequently made use of in calculations.

Line of science, is substituted for the old and awkward oblique step; movements to a flank oblique are now by left or quarter facing, that is, the whole who are to move in the required direction are faced on a line midway between a front and full faced position; so that quarter faced to the right, the right shoulder of the second man is behind the left shoulder of the right file; and so on each along each rank have their right shoulders behind the man on their right; so if the movement is to be oblique to the left, they quarter faced to the left, and the files will stand successively with their left shoulders in the rear of the right of those who stood on their left.

To Line, from the French aligner, is to dress any given body of men, so that every individual part shall be so disposed as to form collectively a straight continuity of points from centre to flanks.

To Line men. Officers, and non-commissioned officers, are said to line them belonging to their several battalions, divisions, or companies, when they arrive at their dressing points, and receive the word dress from the commander of the whole.

When a single battalion halts, it is dressed or lined on its right centre company, and must of course be in a straight line. When several battalions dress from
the centre of each on its next colors, the general line will be straight, provided all the colors have halted regularly in a line. On these occasions every thing will depend upon the two centre guides of each battalion.

To LINE a Cont. To line a coast well under the immediate pressure of invasion, requires not only great ability and exertion in the commanding officer of the particular district against which an insult may be offered, but it is moreover necessary, that every individual officer in the different corps should minutely attend to the particular spot on which he may be stationed. The English coast, especially where there are bays, is almost always intersected by gaps. Much coolness is required on these occasions, and the party rests on arms reversed.

To LINE a street or road, is to draw up any number of men on each side of the street or road, and to face them inwards. This is frequently practised on days of ceremony, when some distinguished person is received with military honors on his way through places where troops are stationed.

This is also done in funerals, when the funeral procession walks through places where troops are stationed.

To LINE, in a fortification, is nothing more than to envelop a rampart, parapet, or ditch, &c. with a wall of masonry or earth.

LINCE, chef d'escadre du soldat, Fr. necessaries belonging to a soldier. During the monarchy of France, a sol or one English half-penny per day, was added to the pay of each seargent, and about six deniers or three English farthings to that of each corporal, lieutenant or lance-corporal, grenadier, private soldier, and drummer, to enable them to keep up a certain list of necessaries. On any deficiency being discovered it was in the power of the commanding officer of the regiment to reduce the subsistence to four sols or two-pence English per day, until the full complement was made up.

LINGERER, one who pretends to be indisposed, in order to avoid his tour of duty—a skulker. Hence the term main-
done on the consummation of the union with Ireland. The electoral cap, as emblematic of Hanover, and the shamrock for Ireland, have been substituted in their stead.

Fluex-de-Lies, during the French monarchy signified also a mark of infantry, which was made with a hot iron, upon the back of a malefactor.

Lisse, Fr. Any smooth and unpierced piece in architecture is so called by the French.

Lissoiire, Fr. From liser to smooth. This word was particularly applied in France to an operation which gunpowder went through in order to make coarse grains smooth and round. This was effected by tying several barrels together and by means of a mill, turning them round, so as to occasion considerable friction within.

List, in a military sense, a place enclosed, in which combats are fought.

To enter the lists, is to contend with a person.

To list soldiers, to retain and enroll soldiers, either as volunteers, or by a kind of compulsion.

Listing. Persons listed, are to be carried before the next justice of peace or magistrate of any city or town and sworn.

Persons, owning before the proper magistrate, that they voluntarily listed themselves, are obliged to take the oath, or suffer confinement by the officer who listed them, till they do take it.

The magistrate is obliged in both cases, to certify, that such persons are duly listed, setting forth their birth, age, and calling, if known; and that they had taken the oath.

Persons receiving inlisting money from any officer, knowing him to be such, and afterwards abandoning, and refusing to go before a magistrate to declare their assent or dissent, are deemed to be inlisted to all them, and are frequently loaded with 14 cwt. for 3 horses, and 20 cwt. for 4 horses. This, however it may answer on an English road, is a great deal too much for general service.

No doubt a carriage of one construction will travel easier than of another, with the same weight, and where the mechanical advantage thus gained is greatest, the heaviest weight may be put, with the same number of horses; but in the carriages usually made for the service of artillery, 4 cwt. per horse, beside the weight of the carriages, is the utmost they ought to be allowed to draw.

The French ammunition wagons, which are drawn by horses, are always charged with 1200 pounds only.

The regulations for British home service in 1758 state the load for a bread wagon at 400 lbs. and for a cart of entrenching tools at 400 lbs. Men used to bear loads, such as porters, will carry from 150 to 250 pounds.

A horse will carry about 500 lbs. and a mule about 250 lbs. See also the word Horses.

Locher-Axe, a tremendous Scotch weapon, now used by none but the town guard of Edinburgh; one of which is to be seen among the small armor in the tower of London.

Locks, in gunnery, are of various sorts; common for lockers in travelling carriages, or for boxes containing shot, powder, or cartridges. Also locks for fire arms, being that part of the musket, by which fire is struck and the powder inflamed.

Lock-Step. This step was first introduced into the British service by the Elloit Lord Heathfield, when he commanded the garrison at Gibraltar; and is the same that general Saldern (from whose works all the British regulations have been almost literally selected) calls the deploy step. This step consists in the heel of one man being brought nearly in contact with the joint of the great toe of another, so that when men step off together they constantly preserve the same distance. The lock or deploy step was always practised when a battalion marched in file or close column; and the great adv
vantage to be derived from it was, that the last file gained ground at the same time that the front advanced. It is now exploded, and very properly, as an excessive absurdity.

To Lock, is to fasten one or more of the wheels of a carriage from going round, in going down a hill, &c.

To Lock up, to take the closest possible order in line or in file. The expression is derived from the lock-step.

Lock step! a word of command which is frequently used in the British service, to make soldiers take or preserve the closest possible order, especially in line-marchings.

Lockers, are to fasten the cover of the lockers in travelling carriages.

Locking plates, in artillery, are thin flat pieces of iron nailed on the sides of a field carriage, where the wheels touch it in turning, to prevent the wearing the wood in those places. See Canons.

Lockspit, in field fortification, a small cut or trench made with a spade, about a foot wide, to mark out the first lines of a work.

To Lodge Arms. A word of command which is used on guards and pickets. When a guard has closed its ranks, and the men are to place their arms in front of the guard-house or quarter-guard, according to the orders, the commanding officer gives the words put arms, to the right or right about, (as the case may be) face.

Lodgment, in military business, is a work made by the besiegers in some part of a fortification, after the besieged unity, while the former has the advantage of being adapted to the mode of notation which is in universal use. The following, therefore, are the progressions chosen: 1, 2, 3, 4, 5, 6.

It follows from the nature and correspondence of these progressions, that, as often as the ratio of the former may have been used as a factor in the formation of any one of the terms of that progression, so often will the ratio of the second progression have been added to form the corresponding term of this identical second progression. For instance, in the term 100, the ratio 10 is 4 times a factor, and in the term 2 the ratio is added 4 times.

If any two terms of the geometrical progression be intermultipled, and if the corresponding terms of the arithmetical progression be added, the product and the sum will be two terms which will correspond with each other in the same progressions.

Upon this principle it is, that, by the simple addition of any two or more terms of the arithmetical progression, we can ascertain the product of the corresponding terms of the geometrical progression.

For instance, by adding the terms 2 and
2 which answers to 100 and 1000, I have 5, which answers to 100000; whence I conclude that the product of 100 by 1000 is 100000, which in fact it is.

It is always easy to ascertain the logarithm of unity followed by any given number of ciphers; for such logarithm will invariably be expressed by as many units as there may be ciphers in the given number. In order to extend this practice to the formation of intermediate logarithms, it may be conceived, that, although any given number, for instance 3, may not apparently form any part of the geometrical progression 1, 10, 100, yet if we were to insert a great number of geometrical means, suppose 1, 100, 1000, between the two first terms, we should either find the number 3 itself, as one of such means, or a number of very near approximation to it. The intermediate terms between 10, 100 and between 100, 1000 might be found in like manner, as well as a corresponding number of intermediate terms, in arithmetical proportion, between e and 1, and between 1 and 2, 2 and 3, &c. The whole of the geometrical terms being then arranged upon the same line, and the whole of the arithmetical terms upon another line, under the former, it is obvious that the lower series would contain units, or decimal fractions, corresponding with the numbers in the upper series; or, in other words, the logarithmic relation of the two series would be complete and exactly similar to that of the fundamental progressions.

It is thus, that, in the tables most in use, the number of decimal places in the logarithmic quantities is 7, than which, however, many more are used by men of science with a view to the attainment of a corresponding degree of precision. Nevertheless, in certain tables which were made a few years ago for the use of accounting houses, the number of decimal places is reduced to 5, and the rather, as a greater degree of precision is not necessary in those calculations of business which do not require more than approximate results.

It should be remarked, in respect to the tables of logarithms, that the first figure to the left of each logarithm is called the characteristic; since it is that figure which denotes the class of the geometrical progression which comprises the number to which the logarithm relates. For instance, if the characteristic of a number be 2, I know that it relates to the second class, or the hundreds, the logarithm of 100 being 2; and, as that of 1000 is 3, every number from 100 to 999 inclusively, cannot have any other logarithm than 2 and a decimal fraction.

Thus, the characteristic of a logarithm is a number corresponding to the natural numbers, namely, 1 to 10, 2 to 100, 3 to 1000, 4 to 10000, &c., &c. The characteristic of the logarithm of any number under 10 is 0.

It happens by this progressive course, that a number being 10 times, 100 times, or 1000 times greater than another number, has the same logarithm as the lesser number, as far as relates to the decimal fractions of each. The characteristic alone is susceptible of variation, as will be seen by the logarithms of the following numbers:

<table>
<thead>
<tr>
<th>Numbers</th>
<th>Logarithms</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0.47712</td>
</tr>
<tr>
<td>30</td>
<td>1.50512</td>
</tr>
<tr>
<td>300</td>
<td>2.47712</td>
</tr>
<tr>
<td>3000</td>
<td>3.47712</td>
</tr>
</tbody>
</table>

the characteristics of which are separated by a comma, being 0, 1, 2, 3.

It is this property by which the extraction of logarithms is facilitated, since, if we know the logarithm of the number 30, and are desirous of finding that of 300, or 3000, or of 3, it is requisite merely to add or to deduce from it, as many units as there may be more or less ciphers in the number whose logarithm is sought.

LOGEMENT, Fr. means generally any place occupied by military men, for the time being, whether they be quartered upon the inhabitants of a town, or be distributed in barracks. When applied to soldiers that have taken the field, it is comprehended under the several heads of huts, tents, &c.

LOGIS, Fr. Quarters. Marquer les Logis, Fr. To mark the officer's rooms according to their respective ranks.

LOGEMENT d'atteinte, Fr. See Logemen in Fortification.

LONG BOAT, the largest boat belonging to a ship; i. e. serves to bring goods, provisions, &c., to or from the ship, to land men, to weigh the anchor, &c. Le long de la Côte, Fr. Along the coast. Toucher le long de l'année, Fr. All the year round.

Long de la guerre, Fr. An expression used in the French service. Faire long, means generally to leave a considerable opening between the ranks.

Prendre le plus long, Fr. To go the furthest way about, as l'armée fut obligée de prendre le plus long pour éviter les défis; the army was under the necessity of going the furthest way about in order to avoid the defiles.

LONGER, Fr. A French military phrase. Longer la rivière. To move up or down the river. It is frequently found necessary to attack an enemy's post, in order to have a free passage on the river, longer la rivière.

Longer le bois, Fr. To march by the side of a wood.

Faire une Longue marche, Fr. To make a long march.

Espée de guerre, Fr. A sword of a proper length to serve as a weapon of offence. This term is used to distinguish it from the short swords, which are worn for mere dress or parade.

Long-epee, Fr. Those sides are 30
called, which belong to places that are irregularly fortified, and contain indiscriminately eighty tuns and upwards. In which cases they are usually strengthened by a flat bastion, which is constructed, according to the extent of the sides, at intermediate distances.

LONGIMETRY, (Longimetry, Fr.) The art of measuring lands and distances, whether the extent or space be accessible as in a road, or inaccessible as in a river, or branch of the sea.

LONGITUDE of the earth, denotes its extent from west to east, according to the direction of the equator.

LONGITUDE of a place, in geography, its distance from some first meridian, or an arch of the equator intercepted between the meridian of the place, and the first meridian. See Geography.

LONGITUDE of motion, according to some philosophers, is the distance which the centre of any moving body runs through, as it moves on in a right line. See Motion.

LONGRINIS, Fr. Pieces of wood or branches which are laid along the extent of a sluice, and make part of its grating.

LOOK, N a word frequently used in the British service to express the good or bad appearance of a corps, &c. viz. such a regiment looks well or ill under arms.

To LOOK at. To go down the front of a regiment, &c. without requiring that the troops should be put through the different evolutions. A general officer frequently looks at a regiment in this manner. Sometimes indeed the expression bears a more extensive meaning; it is usual, for instance, to say—it would be ridiculous to think of looking at a strong place for the purpose of counteracting the mischievous effects of loose marching, but it produced a greater inconvenience, and has therefore been laid aside; and the equal pace and marked time corrects both.

LOOK. Indian term for plunder or pillage.

LOOTIES or LOOTEES, Ind. A term in India to express a body of irregular horsemen, who plunder and lay waste the country, and harass the enemy in their march. They may be compared to the Huilans of Europe, and other free-booters.

LOOTYWALLOW, Ind. A term of the same import as Looties.

To LOOT for men, a phrase peculiar to military arrangements. When recruits join they should be lotted for with the strictest impartiality. If some troops or companies should be less effective than others, they must be first completed to the strength of other troops or companies, and then the whole must be made coherently.

LOUIS, or Knight of St. Louis, the name of a military order in France, instituted by Louis XIV. in 1691. The collar was of a flame color, and passed from left to right: the king was always grand master.

LOUS'D'OR. A French coin first struck in the reign of Louis XIII., in 1640; but laid aside since the revolution.

Loup, Fr. literally signifies a wolf.

Loup des anciens was an iron instrument, made in the shape of a tongs, by means of which they grasped the bultering rams and broke them in the middle. See Crows-foot.

LOYAL. By a misapplication of terms has been perverted from its true signification, a person faithful to the law, i.e. to loyal; it is made to signify a person who, whether he regarded the law or not, was called loyal if he supported a king. Hence during the revolutionary war a regiment was formed, called Loyal American.

LOYALISTS. During the American war several Americans who betrayed their country, served in the British army; and at the conclusion of it many went over to England and received compensations for their perjury to their country. The allowances made on this oc-
casion were not, however, confined to those that had served; several families had their cases taken into consideration, and were provided for by the British government. These compensations did not however give any right to a military man to avail himself of the allowance on the score of half-pay; many of these persons have been since used as spies.

LUMIERE, Fr. Vent, touch-hole, aperture.

Lumieres des pieces d'artillerie, des armes a feu, et de la plupart des artifices, Fr. the vent or aperture through which fire is communicated to cannon, fire-arms, and to almost every species of artificial fireworks. In the making of cannon, it is of the utmost consequence to pay minute attention to the vent or touch-hole. It is in this part that pieces of ordnance are generally found defective, from the vent being too much widened by repeated firing, and the explosion of the gunpowder being necessarily weakened.

LUNETTE d'approche, Fr. a telescope. The French sometimes call them Lunettes de Galilée, from the perspective glass or telescope having been invented by Galileo.

LUNETTE à jumelle, Fr. a multiplying glass.

LUNETTE polyédre, Fr. a magnifying glass.

LUNETTE à close, Fr. a microscope.

LUNETTES, in fortification, are works made on both sides of the ravine; one of their faces is perpendicular to half or two thirds of the faces of the ravine; and the other nearly so to those of the bastions.

LUNETTES, are also works made beyond the second ditch, opposite to the place of arms: they differ from the ravines only in their situation. See FORTIFICATION.

LUNETTONS, are a smaller sort of lunettes.

LUNGER-CONNAN. A poor-house or hospital is so called in India.

LYN. The matchcord with which cannon are fired.

LUNULEE. (Lunule, Fr.) In geometry a half moon or crescent, which is made by the arc of two intersecting circles. If you inscribe a triangle-rectangle within a half-circle, the diameter of which becomes the hypotenuse; and if upon each side that compasses the right angle, as its diameter, you describe a half circle, the space in shape of a half moon, closed in by the circumference of each of these two circles, and by a part of the circumference of the great half circle, will form the called Lunule.

LUTTE, Fr. Struggle. An exercise of the body, which consists in a full exertion of all its muscular powers to overcome another body, that resists with equal force and pertinacity. This sort of exercise was much encouraged among the ancients. The wrestlers at lutteurs, were distinguished by the name of athletes.
It was a common practice and continues to be to this day, to do great an extent as formerly, to place the names on the muster rolls of the children of officers, often their illegitimate children, and instances have occurred of girls, receiving men's pay as servants.

MACHICOUTIS,

MAACER, frd. A certificate, which is attested by the principal inhabitants of a town or village.

M.CHICODS, or Machicoulis, Fr. In ancient fortification, that upper part of the wall which is sustained by brackets or corbels, and sometimes in modern fortification, that upper part of the wall which is sustained by brackets or corbels.

When a place is besieged, detached parties of the garrison may be posted in these machicoulis. Through the intervals of the corbels, or supporting brackets, they may easily observe every thing that passes at the foot of the wall; and if the besiegers should be hardy enough to penetrate as far, they may easily overawe them by throwing down large stones, combustible materials, hand-grenades or bombs. These brackets or supporting parts, which in ancient fortification were of a slight construction, might be made of solid materials. The machicoulis, in fact, is susceptible of great improvement; and in many instances might be adopted in order to defend the lower parts of angular forts or turrets.

MACHINES, Machines, Fr.

Machines, used in war by the ancients. Every species of instrument or machine, which was employed before the invention of fire-arms, for the purpose of demolishing the fortifications of an enemy, or of rendering them accessible to the besieger, came under the denomination of machine.

For a full and elaborate explanation of the different machines that were adopted by the ancients, we refer our military readers to the second volume of the Recueil Alphabetic, page 73.

It was a common practice and continues to be to this day, to do great an extent as formerly, to place the names on the muster rolls of the children of officers, often their illegitimate children, and instances have occurred of girls, receiving men's pay as servants.

The author of Oeuvres Militaires, tom. xxii. page 222, speaking of the infernal machines, observes, that if he were to be in a situation which required the use of so dreadful an explosion, especially to destroy a bridge, he would prefer having the machine made simply with different strong pieces of wood joined together, so as to be in the shape of an egg, or of a cone reversed. The whole must then be made compact with cords twisted round it. This method, in his opinion, is not only the best, but can be executed in the most easy and expeditious manner. He further adds, that in order to burn and blow up wooden bridges, and even to destroy such as are constructed upon a bridge, the rafters may be stopped, which should be filled with fire-works, bombs, petards, &c. It would likewise be extremely easy to construct these machines upon floating rafts, carrying several thousand pounds weight of gunpowder, which might be confined within strong pieces of wood, put together in the manner already described.

These machines should be piled one above the other, and long iron bars must be thrown across the floats, or be fixed like masts, so that when the whole of the combustible materials is beneath the centre of the bridge, the rafters may be stopped. Great care must be taken to dispose the matches in such a manner that no fire may be communicated to the gunpowder before the machine reaches the exact spot which is to be destroyed.

MACHINES, in general, whatever hath force sufficient to raise or stop the motion of a heavy body.

MACHINES are either simple or compound; the simple ones are the seven mechanical powers, viz. lever, balance, pully, axle, and inclined plane. See MECHANICAL POWERS.

If the given power is not able to overcome the given resistance when directly applied, that is, when the power applied is less than the weight or resistance given; then the thing is to be performed by the help of a machine, made with levers, wheels, pulleys, screws, &c. so adjusted, that when the weight and power are put in motion on the machine, the tension of the weight and the friction of the machine, taken together, shall draw heavy bodies, or overcome any other force; or whether the design of these machines is to give such a velocity to the power, in respect of the weight, as that the move-
momentum of the power may exceed the momentum of the weight: for if machines
are used, that the velocity of the agent and resistant are reciprocally as their
forces, the agent will just sustain the re-
sistant, but with a greater degree of ve-
cocity will overcome it. So that if the ex-
cess of motion or velocity in the power is
too great as to overcome all that resistance
which commonly arises from the friction
or attraction of contiguous bodies, as they
slide by one another, or from the cohesion
of bodies that are to be separated, or from
the weights of bodies that are to be ra-
ised, the excess of the force remaining,
after all these resistances are overcome,
will produce an acceleration of motion
thereof, as well in the parts of the machine,
as in the resisting body.

Compound Machines, are formed by
various combinations, and serve for differ-
ent purposes; in which the same
general law takes place, viz. that the
power and weight sustain each other,
when they are in the inverse proportion of
the velocities they would have in the di-
rections wherein they act, if they were
put in motion. Now, to apply this law
to any compound machine, there are four
things to be considered: 1. The moving
power, or the force that puts the machine
in motion; which may be either men or
other animals, weights, springs, the wind,
a stream of water, &c. 2. The velocity
of this power, or the space it moves over
in a given time. 3. The resistance, or
quantity of weight to be removed. 4. The
velocity of this weight, or the space it
moves over in the same given time.

The two first of these quantities are al-
ways in the reciprocal proportion of the
two last; that is, the product of the first
two must always be equal to that of the
last; hence, three of these quantities
being given, it is easy to find the fourth;
for example, if the quantity of the power
be 4, its velocity 15, and the velocity of
the weight 2, then the resistance, or
quantity of the weight, will be equal to
\[
\frac{4 \times 15}{2} = 30.
\]

The following rules will direct the me-
chanic how he may contrive his machine,
that it may answer the intended purpose,
to the best advantage.

1. Having assigned the proportion of
your power, and the weight to be raised,
the next thing is to consider how to com-
bine levers, wheels, pulleys, &c. so that
these machines together they may be able to
give a velocity to the power, which shall be to
that of the weight something greater than
in the proportion of the weight to the
power. This done, you must estimate
your quantity of friction; and if the ve-
cocity of the power be to that of the weight
still in a greater proportion than the weight
and friction taken together are to the
power, then your machine will be able to
raise the weight. And note, this propor-
tion must be so much greater, as you
would have your engine work faster.

2. But the proportion of the velocity of
the power and weight must not be made
too great: for it is a fault to give a machine
too much power, as well as too little;
for if the power can raise the weight and
overcome the resistance, and the engine
perform its proper effect in a convenient
time and work well, it is sufficient for
the end proposed; and it is in vain to
make additions to the engine to increase
the power any farther, for that would not
only be a needless expense, but the engine
would lose time in working a

3. As to the power applied to work
the engine, it may either be a living power,
as men, horses, &c. or an artificial
power, as a spring, &c. or a natural
power, as wind, water, fire, weights,

When the quantity of the power is
known, it matters not, as to the effect,
what kind of power it is; for the same
quantity of any sort will produce the same
effect; and different sorts of powers may
be applied in an equal quantity a great
variety of ways.

The most easy power applied to a ma-
cine is weight, if it be capable of effect-
ing the thing designed. In that case,
wind, water, &c. if that can be conveni-
ently had, and without much expense.

A spring is also a convenient power for
several machines, but it never
acts equally as the weight does; but is
stronger when much bent, than when
but a little bent and that in proportion to
the bending, or the distance it is forced
to; but springs grow weaker by often
bending or remaining long bent; yet they
recover part of their strength by laying un-
bent.

The natural powers, wind and water,
may be applied to vast advantage in work-
ing great engines, when managed with
skill and judgment.

The due application of these has much abridged the labors of
men; for there is scarce any labor to be
performed, but an ingenious artificer can
tell how to apply these powers to execute
his design, and answer his purpose; for
any constant motion being given, it may,
by due application, be made to produce
any other motions we desire. Therefore
these powers are the most easy and useful,
and of the greatest benefit to mankind.

Besides, they cost nothing, and do not re-
quire any repetition nor renewing, like a
weight or a spring, which require to be
wound up. When these cannot be had,
or cannot serve our end, we have recourse
to some living power, as men, horses,

4. Men may apply their strength several
ways in working a machine. A man of
ordinary strength, turning a roller by the
handle, can act for a whole day against
a resistance equal to 50 pounds weight; and
if he works ten hours in a day, he will
raise a weight 31 1/2 feet in a second;
or if the weight be greater, he will raise it to any great height, and in this case is but of little service; yet it is of great use when compounded with others. Thus the spoke of a great wheel are all levers perpetually acting, and a beam fixed to the axis to draw the wheel about by men or horses, in a lever. The lever also may be combined with the screw, but not conveniently with pulleys or with the plough. The wheel axe is combined to great advantage with pulleys: but the perpetual screw, with the wheel is very serviceable. The wheel cannot be combined with any other mechanical power; and it only performs its effect by percussion: but this force of percussion may be increased by engines.

Pulleys may be combined with pulleys, and wheels with wheels. Therefore if any single wheel be too large, and take up too much room, it may be divided into two or three more wheels and pulleys, or wheels and pinions, as in clock work, so as to have the same power, and perform the same effect.

In wheels with teeth, the number of teeth that play together in two wheels, should be prime to each other, that the same teeth may not meet at every revolution: for when different teeth meet, they by degrees wear themselves into a proper figure: therefore they should so be contrived that the same teeth meet as seldom as possible.

8. The strength of every part of the machine should be made proportional to the stress it is to bear: and therefore let every lever be made so much stronger, as its length and the weight it is to support are greater; and let its strength diminish proportionally from the fulcrum, or point where the greatest stress is to each end. The axles of wheels and pulleys must be so much stronger as they are to bear greater weight. The teeth of wheels, and the wheels themselves, which act with greater force, must be proportionally stronger; and in any combination of wheels and axles, make their strength diminish gradually from the weight to the power, so that the strength of every part be reciprocally as its velocity. The strength of ropes must be according to their tension; that is, as the squares of their diameters: and, in general, whatever parts a machine is composed of, the strength of every particular part of it must be adjusted to the stress upon the whole; therefore in square beams and pulleys, the cubes of the diameters must be made proportional to the stress they bear: and let no part be stronger or bigger than is necessary for the stress upon it; not only for the ease and well going of the machine, but for diminishing the friction: for all superficial matter in any part of it, is a dead weight upon the machine, and serves only to impede its motion: hence he is the most perfect mechanic, who not only adjusts the strength to the stress, but who also contrives all the parts to last equally
well, so that the whole machine may fall together.

9. To have the friction as little as possible, the machine should be made of the fewest and simplest parts. The diameters of the wheels and pulleys should be large, and the diameters of the arbors or spindles they run on, as small as can be consistent with their strength. All ropes and cords must be as flexible as possible, and so end rubbed with tar or grease; the teeth of wheels must be made to fit and fill up the openings, and when you have but a small quantity of power is forced to move first one way, because of the friction of the tubes; nor can it always be as fast as you can, to have the greater velocity, increased by the engine by a sudden jolt, let pendicular are resisted longer; that a motion is to be performed in communicating any motion, without great violence; and the moving part of the machine contra. by water, moved by the water and then another; because every change in a machine, let it be made as large as it can conveniently; the greater the machine, the more will it work, and perform all its motions the better; for there will always be some errors in the making, as well as in the materials, and consequently in the working of the machine. The resistance of the medium in some machines has a sensible effect; but all these mechanical errors bear a less proportion in the motion of great machines, than in that of little ones; being nearly reciprocally as their diameters, supposing they are made of the same material, and with the same accuracy, and are equally well finished.

10. When any motion is to be long continued, contrive the power to move or act always one way, if it can be done, for this is better and easier performed than when the motion is interrupted, and the power is forced to move first one way, and then another, because every change of motion requires a new additional force to effect it. Besides, a body in motion cannot suddenly receive a contrary motion, without great violence; and the moving part of the machine contra. by water, moved by the water can be done, for that moves always one way, endeavor to have the motion uniform.

11. In a machine that moves always one way, endeavor to have the motion uniform.

12. But when the nature of the thing requires that a motion is to be suddenly communicated to a body, or suddenly stopped: to prevent any damage or violence to the engine by a sudden jolt, let the force act against some spring, or beam of wood, which may supply the place of a spring.

13. In regard to the size of the machine, let it be made as large as it can conveniently; the greater the machine, the more will it work, and perform all its motions the better; for there will always be some errors in the making, as well as in the materials, and consequently in the working of the machine. The resistance of the medium in some machines has a sensible effect; but all these mechanical errors bear a less proportion in the motion of great machines, than in that of little ones; being nearly reciprocally as their diameters, supposing they are made of the same material, and with the same accuracy, and are equally well finished.

14. For engines that go by water, it is necessary to measure the velocity, drop in pieces of sticks, &c. and observe how far they are carried in a second, or any given time.

But if it flows through a hole in a reservoir, or standing reservoir of water, the velocity will be found from the depth of the whole below the surface. Thus let \(a = \frac{1}{12} \times \sqrt{\frac{3}{2}} \times \text{velocity of the fluid per second} \); \(b = \text{the area of the hole} \); \(H = \text{the height of the water; all in feet}. \) Then the velocity of flow \(v = \sqrt{\frac{2}{3} \times H} \); and its force \(w = \sqrt{\frac{2}{3} \times H} \times \text{cubic foot} = \sqrt{\frac{2}{3} \times 32} \times 1.12 = 2.12 \text{ hundre}d weight} \); because a cubic foot = 62.42 lb. avoirdupo. Also a hundred weight = 112 lb. and a hogshead = 32 gallons.

15. If water is to be conveyed through pipes to a great distance, and the descent be but small, much larger pipes must be used because the water will come slow.

16. When any thing is to be performed by a water-wheel, moved by the water running under it and striking the paddles or ladle-boards, the channel it moves in ought to be something wider than the hole of the adjustable, and no close to the floats on every side as to let little or no water pass; and when past the wheel, to open a little, that the water may spread. It is of no advantage to have a great number of floats or paddles; for those past the perpendicularly are resisted by the back water, and those before it are struck obliquely. The greatest effect that such a wheel can perform, in communicating any motion, is when the paddles of the wheel move with one-third the velocity of the water; in which case, the force upon the paddle is four and a half times only; supposing the absolute force of the water against the paddle, when the wheel stands still, to be 1; so that the utmost motion which the wheel can generate, is but 4-27ths of that which the force of the water against the paddles at rest would produce.

MADRAS. Fort St. George. A town and fort on the Coromandel coast, in the East Indies, belonging to the English. The town is called Madras by the inhabitants, but by the natives Chilipatam. It is divided into two towns, the one called the White, and the other the Black town; the former being inhabited by Europeans, and the latter by Con­_toos. The diamond mines of Golconda are a week's journey from this place. The town is governed by a mayor and alder­_men, with other officers. It is 63 miles north of Pondicherry, lat. 15° 5', N. long. 80° 34', E. It may not be irrelevant to state, that the establishments belonging to Great Britain, on the coast of Coromand
descent to the rain. Which effects are exactly what might be expected according to the true theory of arches. Now, as this shrinking of the arches must be attended with very ill consequences, by breaking the texture of the cement, after it has been in some degree dried, and also by opening the joints of the walls, then, at one end, so a remedy is provided for this inconvenience, with regard to bridges, by the arch of equilibrium in Mr. Hutton's book on bridges; but as the ill effect is much greater in powder magazines, the same ingenious gentleman proposed to find an arch of equilibrium for them also, and to construct it when the span is 20 feet the pitch or height 10, (which are the same dimensions as the semicircle) the included exterior walls at top forming an angle of 135 degrees, and the height of their angular point above the top of the arch, equal to seven feet; this very curious question was answered in 1755 by the Rev. Mr. Wildbore, to be found in Mr. Hutton's Miscellaneous Mathematics.

Artillery-Magazine, in a siege, the magazine is made about 25 or 30 yards behind the battery, towards the parallels, and at least five feet under ground, to hold the powder, loaded shells, port-fires, &c. its sides and roof must be well secured with boards to prevent the earth from falling in; a door is made to it, and a double trench or passage is sunk from the magazine to the battery, one to go in and the other to come out at to prevent confusion. Sometimes traverses are made in the passages to prevent ricochet shot from plunging into them.

Magazines. The present practice is not to make large powder magazines for batteries, but to disperse the barrels of powder, or cartridges here and there in small magazines, about 6 or 7 fathoms, in the rear of the battery; as it appears better to lose a small quantity from time to time, than to run the risk of the whole being destroyed, by a single shot falling into the magazine. Those small magazines or entrenchments, will hold about one or two tons of powder; and are about eight or 9 feet square. They ought to be well covered from the fire of the place, and always in the rear of one of the merlons. When they cannot be sunk in the ground, they should be secured by sand bags or gabions. They should be made with attention, as should the communication from them to the battery. Two magazines of this kind will be required for a battery of six pieces.

Permanent powder magazines. According to Vauban's plan, powder magazines are commonly made 20 fathoms long, and 25 feet wide, in the clear. The foundation of the longest sides, is 9 or 10 feet thick, and 6 feet or more deep, according to the nature of the ground. The side walls raised upon these are 8 or 9 feet thick; and if there is not to be an upper story, 8 feet will be sufficient height above the foundation. By this means the mortar may be raised above the ground, free from damp, and there will remain 6 feet from the floor to the spring of the arch.
The arch is formed of layers of bricks, arched one over the other, and ought to be 3 feet thick at the top. The exterior surface of the arch terminates with an angle at top, like a roof; which angle must be of such magnitude as to make a thickness of 8 feet over the key stone of the arch. The foundation at the gable ends is 5 feet thick, and the same depth at the sides; these ends are built up 4 feet thick, from the foundation to the top of the roof. The long sides are supported by countershots, 6 feet thick and 4 feet long; and placed 12 feet apart. The ventilators are placed, one in the centre of each space between the countershots, and are made with a die across them of 1 1/2 feet. These ventilators are also closed with plates of iron. The magazine is lighted by a window in each end, high up, which are opened and shut by means of a ladder. These windows are secured, each by two shutters, made of plank 2 or 3 inches thick; and the outer one covered with sheet iron, and both fastened with strong bolts. The entrance to the magazine is closed by two doors, one of which opens inwards, and the other outwards; the outward one is covered with sheet iron. The entrance of the magazine should, if possible, be placed towards the south. A wall of 1 1/2 feet thick, and 10 feet high, is built round the magazine at 12 feet distance. A magazine of the above dimensions will contain about 94,800 lbs. of powder, in piles of 9 barrels each; for a greater number piled above each other destroys the barrels, damages the powder, and occasions accidents. MAGNITUDE, or quantity, any thing locally continued, or that has several dimensions. Its origin is a point, which though void of parts, yet its flux forms a line, the flux of that a surface, and of that a body, &c.

Magna Charta, the great charter of liberties granted to the people of England in the 9th year of Henry III., and confirmed by Edward I. It is so called on account of the supposed excellence of the laws therein contained; or according to some writers, because another lesser charter, called Charter de Foresta, was established with it; or because it contained more than any other charter, &c., or in regard of the remarkable solemnity in the denouncing communications against the infringers of it. It is nevertheless a code of barbarity characteristic of the age; and to which imposture has given it all the consequence which ignorance ascribes to it.

Maillonne, Fr. a species of galleon or double galley which the Turks use. The Venetian galleasses are larger and stronger.

Maiden, an edged instrument used at Edinburgh in former times for the decapitation of criminals. The original invention is by some attributed to an inhabitant of Halifax, in Yorkshire. The gullet, so called from a French physician of that name, and by which the unfortunate Louis the Sixteenth was executed, January 21st, 1793, owes its origin to the Maiden.

Mail, primarily denotes the holes or meshes in a net; it likewise signifies a round iron ring. Hence Coat of Mail, a coat of armor or steel net-work, anciently worn for defense.

Maillet, Fr. a maillet. The French formerly made use of this instrument as an offensive weapon in their engagements.

In 1551 the maillet was used at the famous battle des Trente (of thirty) which derived its name from the number of combatants that fought on each side.

This extraordinary combat, holds a distinguished place in the history of Britain, and was entered into by the parties of Charles of Blois, and the king of France on one side, and by the count Montfort and the king of England on the other.

Under the reign of Charles VI., a Parisian mob forced the arsenal, took out a large quantity of maillets, with which they armed themselves for the purpose of murdering the custom-house officers. The persons who assembled on this occasion were afterwards called Mailotins.

In the days of Louis XII., the English archers carried maillets as offensive weapons.

Mailotin, Fr. an old French term; which signified, an ancient weapon that was used to attack men who wore helmets and cuirasses. A faction in France was distinguished by the application of Mailotins.

Main Army, Fr. Armed force. Enter a main armies dans un pays, is to enter into a country with armed men.

Main, Fr. In main aux armes. To come to close action.

Mainau, Fr. To encamp.

Main Body, the body of troops that march between the advance and rear-guards. In a camp, that part of the army encamped between the right and left wings.

Main Guard, or grand-guard, a body of horse posted before a camp for the security of an army. In garrison, it is a guard generally mounted by a subaltern officer and about 24 men. See Guard.

Main Guard. The French observed the following general maxims, with respect to their Grandes Garde or main-guards. In the first place, every main-guard on foot or horseback, must be so posted as to remain secure of not being surprised and carried off, nor easily forced to abandon its position. In order to accomplish these two objects, it must constantly be within the reach of the different pickets; and, if necessary, those pickets should be readily supported by the army itself.

Maintain, when any body of men
defend a place or post, against the attacks of an adverse party, they are said to maintain it.

**Major**. A superior officer in the army, whose functions vary according to the nature of the service on which he is employed.

**Major of a regiment of foot**, the next officer to the lieutenant-colonel, generally nominated from the eldest captains; it is to take care that the regiment be well exercised, to see it march in good order, and to recall it in case of being broke in action: he is the only officer among the infantry that is allowed to be on horseback in time of action, that he may the more readily execute the colonel's orders.

The **Major of a regiment of horse**, as well as foot, ought to be a man of honor, integrity, understanding, courage, activity, experience, and address: he should be master of arithmetic, and keep a detail of the regiment in every particular: he should be skilled in horsemanship, and ever attentive to his business; one of his principal functions is, to keep an exact roster of the officers for duty; he should have a perfect knowledge in all the military evolutions, as he is obliged by his post to instruct others, &c.

**Town-Major**, the third officer in order in a garrison, and next to the deputy-governor. He should understand fortification, and has a particular charge of the guards, rounds, patrols, and sentinels.

**Brigade-Major**, is a particular officer appointed for that purpose, only in camp: or attached to a brigade when an army is brigaded; he goes every day to head quarters to receive orders from the adjutant-general: from thence he goes and gives the orders, at the place appointed for that purpose, to the different majors or adjutants of the regiments which compose his brigade, and regulates with them the number of officers and men which each are to furnish for the duty of the army; taking care to keep an exact roster, that one may not give more than another, and that each march in their turn; in short, the major of brigade is charged with the particular detail in his own brigade, in much the same way as the adjutant-general is charged with the general detail of the duty of the army. He sends every morning to the adjutant-general an exact return, by battalion and company, of the men of his brigade missing at the retreat, or a report, expressing that none are absent: he also mentions the officers absent with or without leave.

As all orders pass through the hands of the majors of brigade, they have infinite occasions of making known their talents and exactness.

**Major of artillery**, is also the next officer to the lieutenant-colonel. His post is very laborious, as the whole detail of the corps particularly rests with him; and for this reason all the non-commis­sioned officers are subordinate to him, as his title of serjeant-major imports; in this quality they must render him an exact account of every thing which comes to their knowledge, either regarding the duty or wants of the artillery and soldiers. He should possess a perfect knowledge of the power of artillery, together with all its evolutions. In the field he goes daily to receive orders from the brigade-major, and communicates them to his superiors, and then dictates them to the adjutant. He should be a very good mathematician, and be well skilled in military architecture, fortification, gunnery, and mining. He should have a perfect knowledge in all the military evolutions, as he is obliged by his post to instruct others, &c.

**Majors of engineers**, should be very well skilled in military architecture, fortification, gunnery, and mining. He should have a perfect knowledge in all the military evolutions, as he is obliged by his post to instruct others, &c.

**Major-General**, is on sundry occasions appointed to act as major, who has a preeminence above others of the same denomination. Our horse and foot guards have their guidons, or second and third majors.

**Serjeant-Major**, is a non-commissioned officer, of great merit and capacity, subordinate to the adjutant, as he is to the major. See SERJEANT.

**Drum-Major**, is not only the first drummer in the regiment, but has the same authority over his drummers as the corporal has over his squad. He instructs them in their different beats, is daily at orders with the serjeant-major, he knows the number of drummers for duty. He marches at their head when they beat in a body. In the day of battle, or other exercises, he must be very attentive to the orders given him, that he may regulate his beats according to the movements ordered.

**Fife-Major**, is he that plays the best on that instrument, and has the same authority over the fifers as the drum-major has over the drummers. He teaches them their duty, and appoints them for guards, &c.

**Major-General. See GENERAL.**

**Major, Fr.** The French considered this term, in a military sense, under the following heads:—

**Major-Général d'une Armée, Fr. Major-general generally so called, which see.**

**Major-Général de l'Infanterie Fran­caise, Fr. Major-general of the French infantry. This appointment was made for the Ist in 1515.**

**Major-Général des Dragons, Fr. a ma­jor-general of dragoons. His functions were similar to those exercised by the Marshal-general des logis de la Cavalerie, and nearly the same as those of the major-general of infantry.**

**Major de Brigade, Fr. Brigade-major.**

**Major d'un Régiment de Cavalerie, Fr. Major in a regiment of cavalry.**

**Major d'un Régiment d'Infanterie, Fr.
Major of a regiment of infantry. Under the old government of France all majors of infantry regiments were styled ser­gent-majors, or serjeant-majors in their commissions. They were not permitted to bring any company of their own; be­ cause it was reasonably judged, that their own interest might render them more par­ tial to that company, and the service be thereby injured.

Major (de) la place de guerre, Fr. Town-major.

Major, des quatre compagnies des Gar­ des du corps, Fr. A rank which was ex­ clusively given to an officer belonging to the old French guards. This was an ap­ pointment of considerable trust under the old government of France. He was lieu­ tenant in each of the companies, and had the right of seniority over all lieutenants younger than himself in date of commis­sion.

Major en un vaisseau de guerre, Fr. An officer on board a warship, whose duty it was to see the guard regularly mounted, and the sentries posted.

Major, Fr. A comprehensive French term, in which is included every thing that can be conveyed under the word staff, as applicable to the British service. In a very recent publication, entitled, Manuel des Adjutans-Generaux et leurs Adjutants, the particular duties of the staff majors are accurately explained, of which an entire translation is incorporated with the American Military Library. Another work on the same subject, was published in 1809, by general Grimnard, entitled Traité sur le Service des Armées con­ tenant sur organisation, et ses fonctions sous les rapports administratifs et militaires, with plates. The author began this work in 1778, and part of it was published in 1797, in the Encyclopédie Méthodique. This work has supersed the work of Thie­bault, only on account of its being more comprehensive; their views and prin­ciples are the same.

Major-dom, Fr. An officer belonging to the galleys, who has the chief su­ perintendence of provisions.

Majorité, the office, charge, or appointment of a regimental major.

Maire, Fr. Under the old govern­ment of France the person so called was invested with the first dignity of the kingdom. Charles Martel, of whom so much is said in the history of the French kings, was Maire of the palace. He was, in fact, grand master of the king's house­ hold, and had an entire control over the officers belonging to that establishment.

The appellation of Maire du Palais, or mayor of the palace, was given in lieu of Maître du Palais, or master of the palace. This name was borrowed from the Roman emperors, who each had a grand master of the palace. Du Tiller, a French author, in page 12 of his book, pretends that the word is derived from Mer, which signi­fies Prefect. At first he had only the care and superintendence of the king's household, so that his functions were nearly similar to those that were exercised by the grand master of the king's household previous to the Revolution. During the reign of Charlie the Second, the power of the Maîtres increased very con­ siderably. Their influence grew greater through the weakness and effeminacy of the last kings of the second race; so much so, that they maintained an uncontrolled power over the royal expenditure, and had the sole management of the king's affairs. Pepin added the dignity and functions of Maire to the royal per­ spective; but he did not suppress them wholly. He merely limited his func­tions to what they were originally, which however were soon restored, in conse­quence of the fall and extinction of the second race. As the Maîtres possessed an unlimited control over the finances and judicature of the country, and had more over the entire management of the war de­partment, they found little difficulty in assuming a superiority over all the officers belonging to the crown. They took pre­cedence of all dukes and counts who were the governors of provinces. On which account they were called Ducs des Ducs, or dukes of France. Hugh Capet, first duke of France at the time he proclaimed himself king of the country; but the kings belonging to the third race, being convinced that the authority which was thus vested in one person, must eventu­ally prove extremely dangerous, abdicated the office of Maire du Palais, or duke of France. They divided the functions, and created the four great officers that were immediately attached to the crown. The command and superintendence of the army, were entrusted to the constable; the administration of civil justice was vested in the chancellor; the management of the finances was given to the grand treasurer; and the care of the king's household devolved upon the seneschal, who was afterwards styled grand master.

Maison du Roi, Fr. The king's household. Certain select bodies of troops were so called during the monarchy of France, and consisted of the gardes du corps, or body-guards, the Gendarmes, Che­ vau-legers of light horse, Musquetaires or musqueteers, la gendarmerie, grenadiers a cheval, or horse-grenadiers, the regiments belonging to the French and Swiss guards, and the cent Suisses or hundred Swiss guards. The Maison-du-Roi of king's household, was not considered as a sepa­rate establishment from the rest of the army, until the reign of Louis XIV. This establishment was successively formed by different kings out of militia compa­ nies, which they took into their body guard.

Maison Meunirière, Fr. This term was formerly given to castrates.

Maitre des armes, Fr. Master at arms. An officer, during the existence
of the Grecian empire, who took precedence of the Maitre de la miler, or commander of the militia.

**Maitre d'armes, Fr.** A term in general use among the French, signifying a fencing master. Every regiment has a maitre d'armes attached to it.

**MAKE-Ready,** a word of command in the firing, on which the soldier brings his piece to the receiver, at the same time cocking it ready for firing.

**MAL d'armes, Fr.** A sort of contagious disease which sometimes arises in an army, and is occasioned by too much fatigue, or by bad food.

**Malade, Fr.** The sick.

**Malades, Fr.** Soldiers on the sick list.

**Malandrin, Fr.** A set of foot-boaters, who under the reign of Charles V. infested France. During the 14th century, these plunderers made their appearance twice in considerable bodies. They consisted chiefly of discharged soldiers who formed themselves into marauding parties, and pillaged with impunity all the travellers they met. Abd el-Chatit, relates that it was extremely hazardous to oppose them in their first onset. These pillagers, whom the inhabitants called Malandrin, assembled in different cantons, chose their own leaders, and observed a sort of discipline in their deportations. They usually contrived to station themselves in such a manner, that it was impossible to attack them. They plundered and destroyed many places and buildings through which they passed, and paid no regard to church or state. Their principal and most notori- ous leaders, were the Chevalier de Vert, brother to the count d'Auxerre, Hugues de Caurelee, Mathieu de Gournar, Hugues de Valennes, Gauthier Huet, and Robert Lescot, who all belonged to some order of knighthood. Bertrand du Guescin cleared the country of these dangerous and unprincipled men, by leading them into Spain under a pretence of fighting the Moors; when in reality his object was to attack Peter the cruel. See French History of Charles V. liv. p. 88.

**Malingrer, (from the French) one who beings illness to avoid his duty.**

**Malle, Fr.** A wooden hammer, to drive the stakes into the ground, by which a tent is fastened; it is likewise used on various other occasions, especially in fortification and artillery.

**Malleable, in the art of founding, a property of metals, whereby they are capable of being extended under the hammer.**

**Malta.** The strongest place in the Mediterranean, taken by the French troops during the present war, from the Knights of that order, and since re-taken by the British. The island of Malta may be considered as a key to the Levant. See Military orders.

**Mammillaria,** (from the French) a word corrupted from the Latin, signifying a sort of arm, or that part of armor which formerly covered the chest and nipples. El Sue de la fontaine, who was silver smith to the French court, mentions among other articles two sets of Mammillaries, in an account which was delivered in the year 1352.

**Mamaluks, (Mamllures, Fr.)** Some writers assert that they were Turkish and Circassian slaves, originally purchased from the wandering Tartars by Muletulche, and amounting in number to one thousand men. They were trained and disciplined to war, and some were raised to the first places of trust in the empire. Other writers say that the mamaluks were generally chosen out of Christian slaves, and may be considered in the same light as the Turkish janizaries are; others again assert, that they originally came from Circassia, and attracted public notice by their valor, &c. in 899. See D'Herbelot, page 545. The mamaluks have made a considerable figure during the present war, especially in their contest against Bonaparte, for the defence of Egypt. They afterwards joined the French, and formed a considerable part of their cavalry.

**Man, to rear the works, is to post the soldiers on the lines so as to be ready for their defence, &c. In the plural number it means soldiers, as an army consisting of 12,000 men.**

**Flank-center-rank-MAN.** Each soldier upon the right and left extremity of the first line or rank of any given body of troops is so called.

**Flank-star-rank-MAN.** Each soldier upon the right and left extremity of the last line or rank of any given body of troops.

When a company or battalion is drawn up three deep, the two men who stand at the extremities of the centre line may be called flank-center-rank-men.

**Mancelle, Fr.** A small chain which is fixed to the collars of carriage or dray horses, and which terminates in a large iron ring, that is attached to the shaf. It likewise means the ring itself.

**Mangée de lune, Fr.** See the sleeve of a battalion.

This word originally signified any small body consisting of 48 or 64 men, which were drawn out of the main-body of a battalion, and were posted by files upon
the corners or angles of the same battalion.

At present the word manche means the wings of a battalion, the centre of which was composed of pikemen, whilst pikes were in use. Thus there were right and left wings, which were again divided into half-wings, quarter-wings, and half-quarter-wings.

Any battalion may defile or break off by wings, half-wings, or by the other proportions.

A term manche, or wing, was undoubtedly adopted for the express purpose of distinguishing several small corps, which, though at times connected and standing together, could suddenly detach themselves, and act against the enemy without occasioning the most trifling fluctuation or movement in the main body. The Greeks and Romans must have had a term synonymous to manche, in order to show the several little portions into which the phalanx of the former, and the legion of the latter, were at times divided, when there was occasion for either to manoeuvre upon the same principles that we do by wings.

Gardes de la Manche, Fr. Men belonging to the old French body guards, who, on particular occasions, as at the Royal Chapel, &c. stood on each side of the king, dressed in houquetos, and armed with pertusanes or lances.

La Manche, Fr. The channel.
La Manche Britannique, Fr. The British channel.
La Manche de Bristol, Fr. The Bristol channel.

Marche d'outil, Fr. The handle of any utensil.

Mandarin. A name which the Portuguese originally gave to the Chinese nobility. According to a French author, the Mandarin are divided into nine orders, each having a peculiar mark of distinction to ascertain its rank.

Civil Mandarin. (Mandarin lettres, Fr.) These were able and scientific men who had the management of the different branches belonging to civil government.

Military Mandarin. (Mandarin militaire, Fr.) A certain proportion of the body of mandarins is selected by the emperor of China, to superintend and command the militia of the country, these are called military mandarins.

The mandarins are considered as noblemen, but their rank is not hereditary. Every mandarin undergoes a severe and close examination respecting his natural and acquired talents, before he receives a civil or military appointment; and there are public schools or seminaries to which the natives of the empire may repair to obtain the requisite qualifications for such important and honorable stations.

Mandillon, (Mandille, Fr.) the soldier's coat is so called by the Italians. It does not, however, bear that meaning either amongst us or among the French. Mandilion and Mandille signifying a footman's great coat.

Manège, in horsemanship, the exercise of riding the great horse, or the ground set apart for that purpose; which is sometimes covered, for continuing the exercise in bad weather; and sometimes open, in order to give more liberty and freedom both to the horseman and horse.

Mangan, Fr. This word is sometimes written Magon, (See Gue.) A warlike machine which was formerly used. The term itself, indeed, was generally adopted to signify any species of warlike machine that could be used for warlike purposes; whether it was practised to throw enormous stones against besieged places, or to cast javelins, &c. It was likewise called balista, from the Greek; sermentum from the Latin at tegument; and sometimes petraria, because stones weighing upwards of three hundred and sixty pounds, were thrown from it. This machine answered the double purpose of defending or attacking fortified places, and it was sometimes used at sea. According to a French writer, one of these machines may still be seen at Basle.

Manganelle, Fr. See Manganneau.

Manganneau, Fr. A word originally derived from the Greek, which, according to Potter, seems to signify any engine designed to cast missive weapons.

With respect to that particular engine, which the French have called mangan, manganelle, and manganneau, there is not any specific term for that famous engine, out of which, stones of a size not less than mill-stones, were thrown with such violence, as to dash whole houses in pieces at a blow;—it was called indeed by the Romans, balista; but this name though of Greek original, appears not to have been used in Greece; this engine, however, was known there, and was the same with that used by the Romans, the force of which is thus expressed by Lucan:

At facsum quoties inoquiari vetrorum ingravia
Excutitur, quaeris, quem sese monte
-absidis impulsa soluta, tum habes
fies.

Examinet totum cum supeartis.

Maniement des armes, Fr. Manual exercise. Although it is admitted by military superintendents to enter into a minute examination of the manual as practised by the French, it will not be deemed entirely useless to the military man, to make him master of the different terms. With this view, we shall likewise give the words of command used in the plateau exercise &c. The French manual differed from the English in many points; essentially so in the commencement of it, in (extreme bed
weather excepted) the soldiers in the former service, regularly appeared upon parade with fixed bayonets; so that the first word of command was,

**Present vos armes.** Present arms.

**Portez vos armes.** Order arms.

**Relvez vos armes.** Take up arms.

**Portez vos armes.** Carry arms.

When a guard is dismissed, instead of unfixing the bayonet, a salute is returned with the pontoon.

It is here necessary to explain to the English reader, that the words of command, **"Eins de roulement"**, cease to roll; **"Fus à volonté."** Independent firing.

**Félon.** Platoon.

**Armés.** Ready.

**Fus.** Fire.

**Chargés.** Prime and load.

**Roulement.** Roll.

**Fus de roulement.** Fus de roulement are only used in the drill, or when there is not any drum to beat the prescribed roll.

**Manière, Fr.** To handle.

**Les armes, Fr.** To handle the firelock, or handle arms.

**Manier la hallebard, Fr.** To handle, or salute with the halberd.

**Manier le sponton, Fr.** To handle, or salute with the spontoon.

**Manier l'épée, Fr.** To be a swordsman.

**Manier le dragoon, Fr.** To hurl or unfurl the colors.

**Manier l'épée à deux mains, Fr.** To be able to use your sword with either hand.

**Manifesto (manifeste, Fr.)** A public declaration which is made by a prince or state, containing motives and
reasons for entering into a war. The formality of a manifesto has been considerably reduced in modern times. Among the ancients, on the contrary, it was particularly attended to. Potter, in his Grecian Antiquities, observes, that invasions without notice were looked upon rather as robberies than lawful wars, as designed rather to despoil and make a prey of persons innocent and unpri viledged, than to repair any losses, or damages sustained, which for ought the invaders knew, might have been satisfied for in an easier way. It is therefore no wonder, as Polybius (lib. iv. relateth of the Αρχονταί, that were held as common outlaws and robbers in Greece, it being their manner to strike without warning, and to make war without any previous or public declaration, whenever they had an opportunity of enriching themselves, with the spoil and booty of their neighbors. Yet there want not insatiable of wars begun without previous notice, even by nations of better repute for justice and humanity; but this was only done upon provocations so great and exasperating, that no remonstrance was thought sufficient to stone them: whence it came to pass, that such wars were of all others the most bloody and pernicious, and fought with excess of rage and fury; the contesting parties being resolve to extirpate each other, if possible, out of the world.

Before the Grecians engaged themselves in war, it was usual to publish a declaration of the injuries they had received, and to demand satisfaction by ambassadors; for however prepared, or excellently skilled, they were in the affairs of war, yet peace, if to be procured upon honorable terms, was thought more eligible: which custom was observed, even in the most early ages, as appears from the story of Tydeus, whom Polybius sent to compose matters with his brother Erocles, king of Thucis, before he proceeded to invest that city, as we are informed by Statius, (Thebaid, lib. ii. v. 368.) and several others. See Potter, page 64 and 65.

The Romans, on the other hand, used abundance of superstition in entering upon any hostility, or closing in any league or confederacy; the public ministers who performed the ceremonial part of both these were the Feciales, or heralds. The ceremonies were of this nature. When any neighboring state had given sufficient reason for the senate to suspect a design of breaking with them, or had offered any violence or injustice to the citizens of Rome, which was enough to give them the title of enemies; one of the Feciales, chosen one of the college upon this occasion, and habited in the vest belonging to his order, together with his other ensigns, and habiliments, set forward for the enemy's country. As soon as he reached the confines, he pronounced a formal declaration of the cause of his arrival, calling all the Gods to witness, and imprecating the divine vengeance upon himself, and his country if his reasons were not just. When he came to the chief city of the enemy, he again repeated the same declaration, with some additions, and wished desired satisfaction. If they delivered it into his power the authors of the injury, or gave hostages for security, he returned satisfied to Rome; if otherwise they desired time to consider; he went away for ten days, and then came again to hear their resolution, and this he did, in some cases, three times: but, if nothing was done towards an accommodation in about thirty days, he declared that the Romans would endeavor to assert their right by their arms. After this the herald was obliged to return, and to make a true report of his business before the senate, assuring them of the legality of the war, which they were now consulting to undertake; and was then again dispatched to perform the last part of the ceremony, which was to throw a spear into (or towards the enemy's country) in token of defiance, and, as a summons to war, pronouncing at the same time a set form of words to the like purpose. Kennet's Roman Antiquities, book iv. page 229.

The British have within the last century totally changed the usage of war; and appear to court the opprobrium bestowed by history upon the Carthaginians for their perfidiousness and cruelty; and upon the Αρχονταί for their treachery and rapacity; by making war first, and issuing their manifesto afterwards, as in the attack on Copenhagen in 1807.

MANIGLIONS, the two handles on the back of a piece of ordnance. See CANON.

MANIPLE. See MANIPULUS.

MANIPULARIS (manipulatus, Fr.) from MANIPULUS, a handful or bottle of straw. The chief officer in a part of the Roman infantry called manipulus, was so called. This officer was likewise ordinary, ordinaire, Fr.

MANIPULA, Fr. See MANIPULUS.

MANIPULUS pyramidalis, Fr. A certain quantity of iron or brass petards, which may be thrown by the hand upon an enemy. These petards and the method of making them, are particularly described by Casini in his work on artillery. See PETARDS.

MANIPULUS (manipule, Fr.) A small body of infantry originally so called among the Romans, during the reign of Romulus. Their ensign was a hand at the end of a staff.

It consisted of one hundred men, and in the days of the consuls and First Censors, of two hundred. Three manipuli constituted a Roman cohort. Each manipulus was commanded by two officers called centurions, one of whom acted as lieutenant to the other. A centurion among the Romans, may be considered in the same light, as we view a captain of
MANOEUVRE, (MANOEUVRE, Fr.)

M A N O E U V R E

The use of all manoeuvres and of all discipline is the same, to habituate men to the word of command, to perform what is commanded, and in the shortest time, in the best manner. The idea then of reducing manoeuvres to 18 or 19, or any given number, manifests a misconception of the military art, that is truly sad; for it must be perceived by a practical man, that the principles of all manoeuvres are few and simple, although manoeuvres are as susceptible of infinite variety and of real use, as arithmetical numbers. The ability of the officer is shown in the choice of manoeuvres, and its adaptation to the ground manoeuvred upon, the end proposed to be obtained by the movement, and the position of the enemy, and the exactness and celerity with which it is performed. The great perfection of manoeuvre is when troops at a single word of command perform movements of different kinds at the same instant, but all to accomplish the same object, that is to accomplish together the end proposed by the commander. Soldiers should be so exercised as to be competent to move in any manner or direction on the instant; a fixed number of manoeuvres is calculated to defeat this end. The Austrians have attempted to follow the French, and practice their methods of manoeuvre, which has been reduced to nineteen, though manoeuvres are not so much for practice as for practice. In the United States, the prejudice against, or the ignorance of manoeuvre is excessive. It has always been lamented, that men have been brought on service without being acquainted with the uses of the different manoeuvres they have been practising; and having no ideas of any thing but the uniformity of the parade, instantly fall into disorder and confusion when they lose the step, or see a deviation from the straight lines they have been accustomed to exercise. It is a pity to see so much attention confined to show, and so little given to instruct the troops in what may be of use to them on real service.

Manoeuvre when executed in the presence of the enemy, must be protected by some light troops, riflemen or horse artillery.

Grand MANOEUVRE de Guerre, Fr.

This expression is peculiarly French, and may be said to signify the dispositions of war upon a large scale. According to Marshal Saxe these dispositions consist chiefly in drawing troops up in such a manner, that the cavalry and infantry may support each other; but he observes, that arrangement by which companies or platoons of infantry are intermixed with squadrons of horse, for, as he justly observes, if the latter should be beaten, the foot soldiers must unavoidably be thrown into confusion by the enemy's cavalry, and be cut to pieces. For further particulars on this important article, see Saxe's Revisits, where he treats of La Grande MANOEUVRE de Guerre, and the supplement to them by Baron d'Espagnac, page 69.
Warlike MANŒUVRES, (Manoeuvres de Guerre, Fr.) Warlike manoeuvres, or the different exercises, &c. by which men are taught the military profession: these exercises, from the earliest periods of history, have been infinitely diversified. Vegetius, an ancient writer, remarks, that the Romans, in order to ensure their raw troops to the fatigues of war, had specific regulations drawn up, by which every recruit was regularly practised in martial exercises. These regulations were originally formed during the existence of their republic, and were afterwards confirmed by the emperors Augustus and Adrian.

It was particularly ordained, that the cavalry as well as the infantry should be walked out (etre mesure à la promenade) three times every month. The foot were obliged to go ten miles beyond the lines of their encampment. On these occasions they were originally drawn up. But their movements both in going and returning were frequently altered; being sometimes obliged to march at a moderate rate, and others to increase their pace and run. The same regulation held good with respect to the cavalry, which was armed and divided into certain proportions, called turmas. The troops on horseback went the same distance, and practised different evolutions on the road. Sometimes advancing to attack, and at others suddenly wheeling round, to return to the charge with greater impetuosity. These exercises were not, however, confined to open roads, or a level country: both horse and foot were frequently ordered to make their way through intricate passes, over cragged hills, &c. and to accustom themselves to every possible obstacle that might occur in military movements.

This species of manoeuvre or practising exercise, has at last obtained in modern times. It was till lately thought sufficient to teach a raw recruit the use of the firelock; and to make him master of a certain number of evolutions, by the knowledge of which he was held fit to make a part of a well disciplined corps. Now to march against and attack an enemy, or to meet his attack with skill and steadiness; these principally constituted the system of modern manoeuvres, and are better understood by the name of evolutions. In the British service there is a specific number of manoeuvres or evolutions to which every regiment must conform, and with the particular practice of which every officer and soldier must be made intimately acquainted.

MANOEUVREUR, Fr. To manoeuvre. This verb in the French language may be applied two ways: as, manoeuvrer les vaises, to manage the sails and tackle of a vessel. Orde, Arms. (3 motions.)

MANŒUVRES, Fr. signifies to manoeuvre well or ill; as, un tel général au manœuvrer à tel endroit, such a general manoeuvred well at such a passage or quarter: mais un tel mal manœuvré à la défense ou à l'attaque de tel poste, but such an officer manoeuvred extremely ill in his defence or attack of such a post. The word manoeuvre is originally derived from the Latin Maneuveriae.

MANOEUVRIER, Fr. any officer who is perfectly acquainted with the art of manoeuvring.

MANOEUVRIER, Fr. A sea phrase, which is frequently used among the French, to signify that an officer not only understands all the different words of command, but can thoroughly manoeuvre his ship. It is common to say, il est un des meilleurs manoeuvriers qui sent sur mer, he is one of the ablest sea officers in the service.

MANTEAU, Fr. This word, which literally signifies a cloak, is frequently used among the French to express the covering that Hussars or light infantry troops carry for the double purpose of shielding their bodies from the inclemencies of the weather in outposts, &c. and for spreading over their heads, by means of poles, when they occasionally halt, and take a position.

MANTELETS, in a military sense, are either single or double, composed of great planks of wood, of about 5 feet high, and 3 inches thick. The single ones are sometimes covered with tin, and made musquet-proof, which the pioneers generally roll before them, being fixed upon wheels, to cover them from the enemy's fire, in opening the trenches, or carrying on the sap, &c. The double boards form an angle, and stand square, making two fronts, which cover both the front and flank of the sappers, &c. when at work: these have double planks with earth rammed in between them: they are 5 feet high and 3 inches thick, sometimes covered with plates of iron; they may be propitiously called a moving parapet, having a shaft to guide them by.

MANTONET, Fr. A small piece of wood or iron, which is notched, for the purpose of hanging any thing upon it. The pegs in soldier's rooms are sometimes so called.

MANUAL.—In a general acceptance of the word, means any thing done by the hand.

MANUAL Exercises, in the British service, is the exercise of the musquet, independent of powder and ball, and consists in seven motions of the firelock; viz. order arms, fix bayonets, shoulder arms, present arms, charge bayonets, and shoulder arms.

1. Order Arms. (3 motions.) Bring the firelock to the tail in two motions as usual, seizing it at the first at the lower loop, just as the swell, at the 2d, bring it...
down to the right side, the butt within an inch of the ground: at the 3d, drop the butt on the ground, placing the muzzle against the hollow of the right shoulder, and the hand flat upon the sling; the thumb behind the barrel.

II. Fix bayonets.—At the word, fix, grip the firelock, and draw it out the bayonet with the right hand, and the word of command is fully out, push the firelock against the hollow of the right shoulder, and keep the lock somewhat turned out: at the second, they bring the left hand under the cock; at the third, they turn the right wrist, bring the butt within an inch of the ground, and place it flat upon the sling; the thumb behind the barrel.

III. Shoulder Arms.—As soon as the word shoulder is given, grip the firelock with the right hand, and in fixing bayonets, and, at the last word, arms, the firelock must be thrown, with the right hand, in one motion, and with as little appearance of effort as possible, into its proper position on the left shoulder; the hand crosses the body in doing so, but must instantly be withdrawn.

IV. Present Arms. (3 motions.)—1st. Seize the firelock with the right hand, and keeping the lock somewhat turned out: at the first motion they seize the small of the butt, with the left hand, and grasp the firelock, bringing the butt to its proper place, to the right side, the butt within an inch of the ground, and fix, with the utmost celerity. The instant this is done, return as quick as possible, to the order, as above described, and stand perfectly steady.

V. Charge Bayonets. (2 motions.)—1st. Face to the front, and, at the last word, charge, throw up the firelock into its position on the shoulder, by a turn of the right wrist, instantly grasping the butt, as before described, with the left hand.

2d. Quit the firelock briskly with the right hand, bringing it to its proper place by the side.

In marching any distance, or in standing at ease, when presented, the men are allowed to bring their right hand across the body, to the small of the butt, which latter must in that case be thrown, still more forward; the fingers of the left hand being uppermost, must be placed between the body and the right elbow; the right hand to be instantly removed when the division halts, or is ordered to dress by the right.

Time.—The motions in the manual exercise to be performed slow, leaving three seconds between each motion, except that of fixing bayonets, in which a longer time must be given.

The manual is not to be executed by one word, or signal, but each separate word of command is to be given by the officer who commands the body performing it.

In regard to the motions of securing, grounding, and trailing, as well as those of fixing, &c., it will be sufficient for the soldiers to be taught to perform them in the most convenient and quickest method. Returning bayonets is to be done from the order, in the same manner as fixing them.

Sentries.—Sentries posted with shoulder arms, are permitted afterwards to support, but not to slope them. On the approach of an officer, they immediately carry their arms, and put themselves in

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their proper position; which is not to be done at the instant he passes, but by the time he is within twenty yards of their post, so that they may be perfectly steady before he comes up.

Corporals marching with reliefs, or commanding detachments, or divisions, carry their arms advanced, as formerly: for which purpose a soldier, when promoted to that rank, must be taught the position of advanced arms.

Explanation of the several Motions of the Platoon Exercise, as taught at the drill in the British service.

I. Make Ready.—As usual, bringing the firelock to the receiver, and instantly cocking.

II. Aim.—1st. Slip the left hand along the sling, as far as the swell of the firelock, and bring the piece down to the present, stepping back about six inches to the rear with the right foot.

III. Fire.—After firing drop the firelock briskly to the priming position.

IV. Handle Cartridge.—1st. Draw the cartridge from the pouch.

V. Prime.—1st. Shake some powder into the pan.

VI. Load.—1st. Face to the left on both heels, so that the right toe may point directly to the front, and the body be a very little faced to the left, bringing at the same time the firelock round to the left side without sinking it. It should, in this momentary position, be almost perpendicular (having the muzzle only a small degree brought forward), and as soon as it is steady there, it must instantly be forced down within two inches of the ground, the butt nearly opposite the left heel, and the firelock itself somewhat sloped, and directly to the front; the hand at the same instant catches the muzzle, in order to steady it.

2d. Shake the powder into the barrel, putting in after it the paper and ball.

3d. Seize the top of the ramrod, with the forefinger and thumb.

7th. Strike it two very quick strokes with the ramrod.

IX. Return ramrod.—1st. Draw the ramrod half out, catching it back-handed.

2d. Draw it entirely out, turning it very briskly from you, with the arm extended, and put it into the loops, forcing it as quick as possible to the bottom; then face to the proper front, the finger and thumb of the right hand holding the ramrod, as in the position immediately previous to drawing it, and the butt next two inches from the ground.

N. B. Though the butts are not to come to the ground in casting about, as accidents may happen from it, yet they are permitted, while loading, to be so rested, but it must be done without noise, and in a manner imperceptible in the front.

Explanation of priming and loading quick.

Prime and Load.—1st. Bring the firelock down in one brisk motion to the priming position, the thumb of the right hand placed against the pan-cover, or steel: the fingers clenched; and the elbow a little turned out, so that the wrist may be clear of the cock.

2d. Open the pan by throwing up the steel, with a strong motion of the right arm, turning the elbow in, and keeping the firelock steady in the left hand.

3d. Bring your hand round to the pouch, and draw out the cartridge.

The rest as above described, excepting that, in the quick loading, all the motions are to be done with as much dispatch as possible; the soldiers taking their time, from the flinching man in front, for casting over and shoudering only.

Prime and Load.—In firing three deep the priming position for the front rank is the height of the waistband of the breeches: for the centre rank, about the middle of the stomach; and for the rear rank, close to the breast. the firelock, in all these positions, is to be kept perfectly horizontal.

Explanation of the Positions of each Rank in firing.

Front Rank, kneeling.—Bring the firelock briskly up to the receiver, catching it in the left hand; and, without stopping, sink down with a quick motion upon the right knee, keeping the left foot fast, the butt end of the firelock, at the same moment, falling upon the ground; then cock, and instantly seize the lock and stock together in the right hand, holding the piece firm in the left, about the middle of that part which is between the lock and the swell of the stock: the point of the left thumb to be close to the swell, and pointing upwards.
As the body is sinking, the right knee is to be thrown so far back that the left leg may be right up and down, the right foot a little turned out, the body straight, and the head as much up as if shouldered; the firelock must be upright, and the butt about four inches to the right of the inside of the left foot.

_Aim._—Bring the firelock down firmly to the aim, by sliding the left hand to the full extent of the arm, along the slant, without letting the motion fail; the right hand at the same time springing up the butt by the cock so high against the right shoulder, that the head may not be too much lowered in taking aim; the right cheek to be close to the butt; the left eye shut, and the middle finger of the right hand, with the right eye from the breech-pin to the muzzle, and remain steady.

_Fire._—Pull the trigger strong with the middle finger, and, as soon as fired, spring up nimbly upon the left leg, keeping the body erect, and the left foot fast, and bringing the right heel to the hollow of the left; at the same instant drop the firelock to the priming position, the height of the right hip; half cock, handle cartridge, and go on with the loading motions, as before described.

_Centre rank._—Make ready. —Spring the firelock briskly to the recover, as soon as the left hand leaves the firelock above the lock, raise the right elbow a little, placing the thumb of that hand upon the cock, with fingers open on the plate of the lock, and then, as quick as possible, cock the piece, by dropping the elbow, and forcing down the cock with the thumb, at the same time with the right foot a moderate pace to the right, and keeping the left fast, so that the small of the butt with the right hand: the piece must be held in this position perpendicular, and opposite the left side of the face, the butt close to the breast, but not pressed, the body straight and full to the front, and the head erect.

_Aim._—As in the foregoing explanation for the front rank.

_Fire._—Pull the trigger strong with the middle finger, and, as soon as fired, bring the firelock to the priming position, about the height of the stomach: the rest, as in the explanation of priming and loading, with this difference only, that the left foot is to be drawn up to the right, at the same time that the firelock is brought down to the priming position; and then immediately after the firelock is thrown up to the shoulder, hold the priming position, and cover their file leaders.

_Rear rank._—Make ready.—Recover and cock, as before directed for the centre rank, and, as the firelock is brought to recover, step briskly to the right a full pace, at the same time placing the left heel about six inches before the point of the right foot. The body to be kept straight, and as square to the front as possible.
In maps these three things are essentially necessary. 1. That all places have the same situation and distance from the great circles therein, as on the globe, to show their parallels, longitudes, zones, climates, and celestial appearances. 2. That their magnitudes be proportionable to the real magnitudes on the globes. 3. That all places have the same situation, bearing, and distance, as on the earth itself.

Maps are either universal, which exhibit the whole surface of the earth; or partial, which exhibit some particular part thereof; each kind is called geographical or land-maps, in contradistinction to hydrographical or sea-maps, representing the seas and coasts, properly called charts.

As a map is a representation of some part of the surface of the earth delineated upon a plane, the earth, being round, no part of the spherical surface of it can be accurately exhibited upon a plane; and therefore some have proposed globular maps. For this purpose a plate of brass might be hammered, or at less expense a piece of paste-board might be formed into a segment of a sphere, and covered on its convex side with a map projected in the same manner as the papers of the common globe are. A map made in this manner would show every thing in the same manner, as it would be seen upon a globe of the same diameter with the map, and the meridian straight lines, a little converging towards the nearest pole; or the meridians may be straight lines, drawn through every minute, &c. of longitude, in proportion as the largeness of the map will allow. See Plotting and Surveying.

The use of maps is obvious from their construction. The degrees of the meridians and parallels show the longitude and latitude of places; their bearings from each other appear from inspection; and their distance from each other may be measured by the divisions on the meridian, equator, or scales. Geography. Marauder, Fr. The act of plundering, which is generally committed by a party of soldiers, who, without any order, go into the neighboring houses or villages, when the army is either in camp or in garrison, to pillage and destroy, &c. Marauders are a disgrace to the camp, to the military profession, and deserve no better quarters from their officers than they give to poorer people, &c. Marauding is also applied to plundering at sea; thus the Barbary Corsairs, and the British navy are systematic marauders.

Marauder, Fr. A marauder. This term is now strictly English. Its signification, however, is generally the same in all services. Any soldier that steals out of camp, armed or unarmed, for the purpose of pillaging the country, is a marauder, and is liable, upon conviction, to be punished with death, or such other punishment as by a general court-martial shall be awarded.

Alier en maraud, means to go out marauding.

Marauding, in a military sense, the act of plundering, which is generally committed by a party of soldiers, who, without any order, go into the neighboring houses or villages, when the army is either in camp or in garrison, to pillage and destroy, &c. Marauders are a disgrace to the camp, to the military profession, and deserve no better quarters from their officers than they give to poorer people, &c. Marauding is also applied to plundering at sea; thus the Barbary Corsairs, and the British navy are systematic marauders.

Marc, Fr. A weight equal to eight ounces. In France, it is usual for silversmiths and jewellers to take a marc at that standard, but when articles of greater bulk and grosser quality than those they deal in, are brought to the scale, the marc contains 16 ounces to the pound. All stores and ammunition were appreciated by this measure.

A march, (sue Marche, Fr.) is the moving of a body of men from one place to
another. Care must be taken, in marching troops, that they are not liable to be flanked or intercepted; for all operations none is more difficult, because they must not only be directed to the objects they have in view, but according to the movements of the enemy they may have made.

Of all the mechanical parts of war, none is more essential than that of marching. It may be truly called the key which leads to all important motions and manœuvres of an army; for they depend entirely on its point. A man can be attacked in four different ways; in the front, on both flanks, and in the rear; but he can defend himself, and annoy the enemy, only when placed with his face towards him. Hence it follows, that the general object of marching, is reduced to three points only; to march forwards, and on both sides, because it is impossible to do it for any time backwards, and by that means face the enemy wherever he presents himself. The different steps to be made use of are three: slow, quick, and accelerated. The first is used only at reviews, for parade, or in mounting guard. The second is proper in advancing, when the ground is unequal, that the line may not be broken, and that a regular fire may be kept up without intermission. The third is chiefly necessary, when you want to anticipate the enemy, with safety, because you face him, and can with ease and safety protect the motion of the troops, that they are coming out of the defiles and trenches, to avoid being a long while in an exposed position, to avoid being a long while invariably denotes that a defile, and, above all, in attacking an enemy in occupying some post, in passing the enemy in their march, &c. British dominions, are obliged to furnish troops on the march with diet and small beer, for the day of their marching in, and two days afterwards; un-
In Marching every soldier must be well balanced on his limbs: his arms and hands, without stiffness, must be kept steady by his sides, and not suffered to vibrate. He must not be allowed to stoop forward, still less to lean back. His body must be kept square to the front, and thrown rather more forward in marching than when halted, that it may accompany the movement of the leg and thigh; the arm must be stretched, but without stiffening the knee; the toe a little pointed, and kept near the ground, so that the shoe-soles may not be visible to a person in front: the head to be kept well up, straight to the front, and the eyes not suffered to be cast down: the foot, without being drawn back, must be placed flat on the ground.

The object so generally recommended, of keeping the body erect, and the legs well stretched and pointed, would be effectually gained, were recruits, when they are first placed under the moulding hand of the drill sergeant, taught and gradually accustomed to step well out from the haunches. This method is invariably practised among the French, who are accustomed to step well out from the haunches.

A movement by which troops advance at the rate of 60 steps in the minute.

Quick-March. Ordinary time. A movement by which troops advance at the rate of 75 steps in the minute, each of 24 inches, making 180 feet or 50 yards in a minute.

Quick-March. As a word of command, signifies, that the troops should move in quick time.

Slow-March. A movement by which troops advance at the rate of 60 steps in the minute.

In order to teach a recruit the just length of pace, accurate distances must be marked out on the ground, along which, he should be practised.

Wheeling-March, or accelerated pace is 120 steps of 24 inches each, or 2880 inches, or 240 feet in the minute.

This is the most rapid movement by which men under arms, or otherwise when formed, should go from line into column, or come from column into line. This is applied chiefly to the purpose of wheeling, and is the rate at which all bodies should accomplish their wheeling, the outward file stepping 30 inches, whether the wheel be from line into column, during the march in column, or from column into line. In this time also should divisions double and move up, when passing obstacles in line; or when in the column of march, the front of divisions is increased or diminished.

A March. (La Marche, Fr.) a certain tune or concord of notes, which is adapted to the movement of any particular body of troops, as, the grenadier's march, the march of the Marseillais, la marche des Janissaries, the march of the Janissaries.

Marching to the front or rear. This is one of the most difficult operations in military movements.

The person instructing a platoon will, before he puts it in motion to front or rear, indicate which flank is to direct by giving the word, mark time! and then forward or march. Should the right be the directing flank, the commander of the platoon himself, will fix on objects to march upon in a line truly perpendicular to the front of the platoon; and when the left flank is ordered to direct, he and the covering sergeant will wheel to the left of the front rank, and take such objects to march upon.

The conductor of the platoon, before the word march is given, will endeavor to remark some distant object on the ground, in his own front, and perpendicular to the directin flank, the commander of the platoon himself, will fix on objects to march upon in a line truly perpendicular to the front of the platoon; and when the left flank is ordered to direct, he and the covering sergeant will wheel to the left of the front rank, and take such objects to march upon.

The same observations hold good in all movements to front or rear, or from either flank, and the only way to execute them with accuracy, is for the leader to look out for small intermediate points of march.

March of a battalion in file, is to advance from the right, left, or centre of any given number of men, for the purposes of countermarching, or of closing, or opening an interval in line. On these occasions the whole step off together at the word march, and dress at the word mark time, the whole front, and the officers and sergeants, resume their several posts in line and then receive the word halt. Whenever more than one company march in file, the officers are out of the ranks during the march, on the left of the leading file when the right is in front, and on the right when the left is in front. They are of use in preserving the line and step, as the rear officer necessarily keeps the pace, and marches on the exact perpendicular line of his coverer. When a company is marched off singly, or files into or out of column, the officer is invariably to be in front. It sometimes happens, that a battalion standing in narrow ground, may be
To March in file before the right flank, the right flank or company has moved on, the rest of the battalion face to the right, and march in file: the divisions then successively front, following each other, and taking the leading one for their regulating company.

To March in file behind the right flank. The whole face to the right, and march by word of command; at which instant the right division countermarches to the rear, moves on, and every other division successively moves on in the same manner (having previously countermarched) and continues till the whole is in column.

To March before any central point or the left flank. This battalion makes a successive countermarch from the right flank towards the left, and when the right division is arrived at the point from whence it is to advance in column, it again countermarches to its right, a space equal to its front, then faces, moves on, and is thus successively followed by part of the battalion.

The other part of the battalion, beyond the point of advancing, faces inwards, when necessary makes a progressive march in file, and then fronts. Each division following the line of the battalion follows successively till the whole stand in column.

To March by files behind the centre or left flank. The right proportion of the battalion countermarches from the right by files successively to the rest, and the other proportion of the battalion, according to circumstances, makes a progressive march by files from its right to the central point, and then begins to countermarch; at that point the leading or head division fronts in two columns, and moves on, each successive division doing the same. When the left of the battalion is to be in front, the same operations take place by an inverse march of the several divisions.

This method, however, of marching by files into open column, should be resolved to as little as possible, and never when it can be conveniently avoided. The formation of open column from battalion and line is better done by the wheelings of companies, subdivisions, or sections.

To March up in charging order, is to advance towards the enemy's line with a quick but firm and steady pace, till you get within a few paces of the opposing body, when, an increased rapidity must be given to the whole, but not so as to lose breath, the officers on this occasion must be particularly attentive to the several divisions in their charge, keeping them well dressed to their centre, and thereby preventing dangerous openings and consequent confusion. The French call this the 'pas de charge.'—Which see under Pas. See Am. Mil. Lib.

Points of March. One or more objects which ought always to be prepared for the direction of any considerable body, every leader of which who moves directly forward in front, must take care to regard it in a line perpendicular to that front. But should a leader, either in file or front, have only one marked point of march, ascertained to him, he will himself instantly look out for small intermediate points.

To March in file to a flank, is to reduce a line by marching out from its several divisions towards a given flank, there to remain in close or open column, and move forward amongst every other division successively moves on in the same manner (having previously countermarched) and continues till the whole is in column.

The battalion makes a successive countermarch from the right, towards the left, and when the right division is arrived at the point from whence it is to advance in column, it again countermarches to its right, a space equal to its front, then faces, moves on, and is thus successively followed by part of the battalion.

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to close, and by so doing, a floating of the whole will ensue, and disorder will arise at a time when the remedy is so difficult, and perfect order so imperiously wanted.

In order to ensure these essential requisites, and to produce perfect correctness, the sergeants must be trained to this peculiar object, on whose exactness of cadence, regularity of step, squareness of body, and precision of movement, the greatest dependence can be placed, these are the proper guides of manoeuvre. The habitual post of the two principal directing sergeants, is to be in the centre of the battalion, betwixt the colors. One of them being posted in the front rank, and one in the rear, that they thereby may be ready to close, and by so doing, a floating of the whole will ensue, and disorder will arise at a time when the remedy is so difficult, and perfect order so imperiously wanted.

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The colors, as far as their natural weight and casualties of the weather will admit, must be carried uniformly and upright, thereby to facilitate the moving and dressing of the line. But it frequently happens in windy weather, and in movements over rough ground, that much little dependence can be placed on the officer who carries them, for a true direction, or an equal and cadence step. On these occasions, and indeed on all others, the men must on no account turn their heads to their left, thereby to facilitate the moving weight and casualties of the weather will not cover their true ground. The commanding officer of every battalion, will easily perceive this defect, by casting his eye along the line, which must soon acquire a convex or convex shape, unless the beginning of each inaccuracy be studiously attended to, by the necessary officers. The two officers who are on the two flanks of the battalion, being unconfined by the rank, and not liable to be influenced by any floating that may arise, by pursuing an exact cadence step, and having a general attention to the colors, and to the proper line which the battalion should be in, with respect to the advanced directors, will very much contribute towards preserving the flanks in their due position. Whence it is evident, that a line, drawn from himself, through the centre of the battalion, passes considerably before the other flank, he may conclude, that he is himself too much retired; when such line passes behind that flank, he may be certain that he is too much advanced; he will, therefore, regulate himself accordingly. When the battalion in march is very convex, the wings must gain the straight line of the centre, by bringing up their forward shoulder; and it must be strongly impressed upon the soldier's mind, that in all situations of movement, by advancing or keeping back the shoulder as ordered, the most defective dressing will be gradually and smoothly remedied; whereas sudden jerks and quick alterations break the line, and eventually produce disorder.

It must be generally remarked, that the rear ranks which were closed up before the march began, are to move at the lock step, and not be allowed to open during the march. The correct movement of the battalion depends much on their close order.

In the march in line, arms are always to be carried shoulder high. Supported arms are only allowed when the battalion is halted, or advanced in column; but if this indulgence were allowed in line, when the most perfect precision is required, the distance of files would not be preserved, and slovenliness, inaccuracy, and disorder, must inevitably take place.

To change direction on the centre in March, is to correct any flanks of the line, occasioned by the opening or closing of the flanks, by ordering a section or central platoon to quarter wheel to right or left. At this command the guiding sergeant making an almost imperceptible change of his position, and of his points, and the colors in the battalion, when they have advanced 6 paces to his ground, conforming to it, the whole will, by degrees, gain a new direction. Every change of di-
A march made in this manner, must produce a kind of wheel of the battalion, on the centre, one wing gradually giving back, and the other as gradually advancing, an attention which the commander must be careful to see observed.

When the battalion which has marched in perfect order, arrives on its ground, it keeps the marked time until it is dressed, and receives the word halt, the step which is then taking is finished, and the whole halt. Eyes are cast to the centre, and the commanding officer places himself close to the rear rank, in order to see whether the battalion be sufficiently dressed, and in a condition perfectly parallel to the one it quitted.

When the battalion is advancing in line for one or two sides, or moving in parade, the music may be allowed at intervals, to play for a few seconds only, and the drums in two divisions to roll, but the wind instruments are alone permitted to play. When the line is retiring, the music are never to play.

To march by any one face, the square or oblong having previously been formed by the 4th, 5th, and 6th companies of a regular battalion standing fast. Under these circumstances, the side which is to lead is announced; the colors move up behind its centre; the opposite side faces about; and the two flank-sides wheel up by subdivisions, so as to stand each in open column. The square marches, two sides in line, and by their centre; and two sides in open column, which cover, and dress to their round flanks on which they wheeled up carefully preserving their distance.

The square halts, and when ordered to front, the subdivisions in column immediately wheel back, and form their sides, and the side which faced about again faces outwards.

To March by the right front angle.—When the perfect square is to march by one of its angles, in the direction of its diagonal, a caution is given by which angle the movement is to be made, and the two sides that form it stand fast, while the other two sides face about. The whole then by subdivisions, wheel up one-eighth of a circle, two sides to the right, and two sides to the left, and are thus parallel to each other, and perpendicular to the direction in which they are to move, the pivot-flanks being in the manner placed on the sides of the square.

Each side being thus echelon, and the colors behind the leading angle, the whole are in march, carefully preserving the distances they wheeled at, and from the flanks to which they wheeled.

When the oblong marches by one of its angles, its subdivisions perform the same operation of wheeling up, each the eighth of the circle, but its direction of march will not be in the diagonal of the oblong, but in that of a square, viz. of the line which equally bisects the right angle.

It will be remembered, that the angular march of the square or oblong, may be made in any other direction, to the right or left of the above one; but in such case the subdivisions of the two opposite sides, will have to wheel up more than the eighth of the circle, in order to stand as before, perpendicular to the new direction. The sum of these two wheels will always amount to that of a quarter circle, and their difference will vary as the new line departs, more or less, from the equal bisecting line; this will be known by the first wheeling up the two angular divisions, till they stand perpendicular with the new direction, and then ordering all the others to conform accordingly. This movement is very beautiful in the execution, but cannot be made with any degree of accuracy, unless the perpendicular situation of the division is correctly attained, and carefully preserved.

To blanche in open ground, so as to be prepared against the attack of cavalry.—In order to execute this movement, with some degree of security, one or more batters may move in column of companies at quarter distances, one named company in the centre of each being ordered to keep an additional distance of 2 sides; in which shape a battalion is easily managed, or directed upon any point. When the column выбрать, and is ordered to form a square, the first company falls back to the second, the last company closes up to the one before it; the whole companies take an interval of 2 paces in their centres, by their sub-divisions taking each one pace to the flanks; 2 officers with their serjeants, place themselves in each of their front and rear intervals; two officers with their serjeants, also take post in rear of each flank of the company, from which the additional interval has been kept; and a serjeant takes the place of each flank front rank man of the first division, and each flank rear rank man of the last division; all officers, serjeants, the 4th, 5th, 6th men, &c. assemble in the centre of the companies, which are to form the flank faces. Those last named companies having been told off, each in 4 sections, wheel up by sections, 2 to the right, and 2 to the left; the 2 rear companies at the same time closing up, and facing outward, the inner sections than close forward to their front ones, which dress up with the extremities of the front and rear companies, from the front and from the rear face outward.—The whole thus stand faced outwards, and formed 6 deep, with two officers and their serjeants in the middle of each face, to command it; all the other officers, as well as serjeants, &c. are in the void space in the centre, and the files of the officers in the faces, may be completed from serjeants, &c. thus placed, in such manner as the commander may direct. The mounted field officers, must pass into the centre of the column, by the rear face, if necessary.
opening from its centre 2 paces and again
closing in.

When ordered only, the 2 first ranks all
before the column will kneel and the
front rank slope their bayonets, the 2
next ranks will fire standing, and all the
others will remain in reserve; the file
covers behind each officer of the sides
will give back, and enable him to stand
in the third rank.

March resumed under the same circum-
stances. On receiving the cautionary
word of command, the several sections
that had closed up, fall to their distances;
the sections then wheel back into column;
the officers, sergeants, &c. take their
places when the column is again put in motion, the compa-
nies that closed up, successively take the

It will be remembered that unless the
companies are above 16 file, they cannot
be divided into 2 sections; so that in this
case, a section may consist of 4 file or
eight men, if therefore, they are under 16
file, and told off in sections of 3 or 4, the
the column will march at the distance of a
section; and in forming the square, the 2
outward sections will wheel up, but the
3d one will stand fast, and afterwards,
by dividing itself to right and left, will
form a 4th rank to the others; in resum-
ing column the outward sections wheel
back, and the rear of the centre sections
early retrieve their places; as to all other
circumstances, they remain the same.

The March, when applied to the
movement of an army, consists in its ar-
angement with respect to the number
and composition of columns, the precau-
tions to be taken, the posts to be seized
upon to cover it, &c., which arrangement
must depend upon circumstances. The
following are general rules:
The routes must be constantly opened
to the width of 60 feet.

If the march be through an open coun-
try, without defiles, the cavalry march
by divisions of squadrons, and the infan-
try by platoons or half companies.

In an inclosed country, or such as is
intersected by hollow ways, or other de-
files, the march must be by sections of 6
(by the heads of the section after facing to
left, being wheeled to the right) or more
files in the infantry, and ranks by threes
or by twos in the cavalry, and the artil-
lerists must move in a single file, because
the frequent breaking off and forming up
again, may retard the march, and fatigue
the troops.

In marches made parallel to, or with a
view of gaining the enemy’s flank, divi-
sions must preserve their wheeling dis-
tances, and the column must cover the
same length of ground which it would
occupy in line of battle; in marches di-
rectly perpendicular to the enemy’s po-
sition, the column must be closed up to
half or quarter distance, in order to move
in as compact a body as possible.

The pivot files must attend to preserve
their distances exactly, each following
precisely the path pointed out by the one
before him; and keeping the regular
marching step, by which means, upon a
signal being given, the division is in a mo-
ment in order. The leader or guide of the
pivot file may be occasionally changed.

At the head of every column, whether
composed of infantry or cavalry, a well
instructed non-commissioned officer must
march as guide. He must carefully keep
the regular step of the march, to which the
troops are drilled, and upon this the
regular pace of the column will depend;
by this method two essential points are
ensured; one, that every column moves
in exactly the same time, and of course
enables the officer commanding to calcu-
late the march with certainty; another
that it ensures the troops not being over
hurried, which they are more especially
liable to be when cavalry leads the co-
lumn; two non-commissioned officers
should be appointed for this purpose,
who must relieve each other.

At the head of every column of march,
there must be a considerable number of
pioneers to clear the rout.

Guns or carriages breaking down shall
disabled, are immediately to be removed
out of the line of march, so as not to in-
terrupt its progress.

Officers are most positively enjoined
at all times to remain with their divisions,
whether marching or halted.

The commanding officers of regiments
must pay the greatest attention to their
corps whilst passing a defile, and proper
officers should be left to assist in this
most essential part of the conduct of
marches.

It is a standing rule in column, that
every regiment should march with the
same front, that the regiment does which
precedes it, right or left.

No alteration should be made in any
circumstance of the march, which is to
be taken up from the regiment in front,
until it exactly upon the same ground
upon which that regiment made the alter-
ation.

No officer should ride between the divi-
sions on a march, except general and
staff officers, the execution of whose
duty renders it necessary for them to pass
in all directions.

When a battalion passes a defile, and
there is no room for the officers to ride on
the flanks of their divisions, half of those
who are mounted pass at the head of the
battalion, and half in the rear.

All breakings off to enter a defile, and
all formations again when passed through
it, must be done extremely quick, by the
parts that double, or that form up.

A sufficient number of faithful and in-
telligent guides must always be ready to
march at the head of the battalions and
columns.

March of the line, in a collective sense

377
of the w^ord, is a military movement, executed upon established principles, governed by local circumstances, and influenced by the nature of the service for which it is performed. After a general has obtained an accurate knowledge of the country through which his army is to move, next come must be the arrangement of all its different component parts, with which he will form his column of route.

**March of the Column of Route.** The order in which a battalion should at all times move; that the columns of an army should perform their marches; that an enemy should be approached; and that safety can be ensured to the troops in their transitions from one point to another is in columns of divisions, and never on a less front than 6 files where the formation is 3 deep, or 4 files where it is 2 deep, nor does any advantage arise from such column, if it is an open column, exceeding 16 or 24 files in front, where a considerable space is to be gone over.

At no time whatever ought a column of maneuver, or of route, to occupy a greater extent of ground in marching than what is equal to its front when in order of battle; no situation can require it as an advantage. Therefore, the marching of great bodies in file, where improper extension is unavoidable, must be looked upon as an unworthy practice, and ought only to be used recourse to when unavoidable necessity. Where woods, inclosures, and bad or narrow routes absolutely require a march in file, there is no remedy for the delay in forming, and man may be obliged to come up after man; and if circumstances admit, and there are openings for their passage, the divisions or platoons may be faced to the left and wheeled to the right, and severally marched to the same front; but these circumstances, which should be regarded as exceptions from the primary and desired order of march on a greater front, should tend the more to enforce the great principle of preventing improper distances, and of getting out of so weak a situation as soon as the nature of the ground will allow of the front of the column being increased.

In common route marching, the battalion or more considerable column may be carried on at a natural pace of about 7 steps in a minute, or near two miles an hour; the attention of the soldier is allowed to be relaxed, he moves without the restraint of cadence of step, or carried arms; rear ranks are opened to one or two paces; files are loosened but never confused; in no situation is the ordered distance between divisions ever to be increased, and the proper flank officers and under officers remain answerable for them.

If the column is halted, the whole must be put in march at the same time. The movement of the head division must be steady and equal; the descending of heights must not be hurried, that the part of the column ascending may properly keep up. Alterations occasioned by the windings of the route are executed without losing distance. Soldiers are not to break to avoid mud or small spots of water. The guides and pivots must trace out such a path for themselves as will best avoid small obstructions, and the men of the division will open from, and not press upon their pivots. When platoons officers are permitted to be mounted, each will remain on the flank of his division watching over its exactness, and that the proper distance of march is kept by the flank pivot and guide under the officer appointed to preserve it.

Where the arrival of a column at a given point is to be perfectly punctual, in that case the distance being known, the head must move at an equal rate of step, and the rear must conform; and a guide, expressly appointed, will, at the head of the column, take such step as the nature of the route shall permit the column to comply with.

Nothing so much fatigues troops in a considerable column, and is more to be avoided than an inequality of march.—One great reason is, that the rear of the column frequently and unnecessarily deviates from the line which its head traces out; and in endeavouring to retain that line, and their first distances, the divisions must of course run or stop, and again take up their march. It is unnecessary to attempt the same scrupulous observances in common route marshaling, as when going into the alignment; but even a general attention to this circumstance will in that case prevent unnecessary winding in the march, which tends to prolong it, and to harass the soldier.

When the probable required formation of the line will be to a flank, then the column of march is an open one, and except the cannon, no impediment or circumstance whatever must be allowed between the divisions or in the intervals of battalions. When cannon can possibly move on the flank of the battalion, they ought, and mounted officers or bat horses must not be permitted between the divisions. If the probable formation may be to the front, then distances are more closed up, and bat horses, etc. may be allowed between the brigades of a column, but not between the battalions of a brigade.

It is always time well employed to halt the head of a considerable column, and enlarge an opening, or repair a bad step in the road, rather than to diminish the front, or lengthen out the line of march. No individual is to presume to march on a less front than what the leader of the column directs, and all doubtings must therefore come from the head only. The preservation of the original front of march, on all occasions, is a point of the highest consequence, and it is a most menialious sel-
vice in any officer to prevent all unnecessary doublings, or to correct them as soon as made; no advantage can arrive from them, and therefore each commanding officer, when he arrives near the cause, should be assured that it is necessary before he permits his battalion to double, on all occasions he should continue his march on the greatest front, that, without crowding, the road or openings will allow, although the regiment or divisions before him may be marching on a narrower front.

All openings made for the march of a column should be sufficient for the greatest front on which it is to march, they should be all of the same width, otherwise each smaller one becomes a defile.

At all points of increasing or diminishing the front of the march, an intelligent officer, per battalion or brigade, should be stationed to see that it is performed with certainty, and the commandant of a considerable column should have constant reports and inspections made that the column is moving with proper regularity; he should have officers in advance to apprise him of difficulties to be avoided, or obstacles to be passed, and should himself apply every proper means to obviate such as may occur in the march. (And at no time is it more necessary than when regiments are acting in line on broken ground, and when their movements are combined with those of others.) When the columns arrive near its object of formation or manoeuvre, the strictest attention of officers and men is to be required, and each individual is to be at his post.

The great principle on all occasions of diminishing or increasing the front of the column in march is, that such part as doubles or forms up shall slacken or quicken its pace, as is necessary to conform to the part which has no such operation to perform, but which continues its uniform pace, without the least alteration, as if no such process was going on; and if this is observed, distances can never be lost, or the columns lengthened out. Unless the unremitting attention and intelligence of officers commanding battalions and their divisions are given to this object, disorder and constant stops and runs will take place in the column; the soldier is improperly and unnecessarily harassed; disease soon gains ground in a corps thus ill conducted, which is not to be depended on in any combined arrangement, is unequal to any effort when its exertion may be required, and is soon ruined from a neglect of the first and most important duties.

The most important exercise that troops can attend to is the march in column of route. No calculation can be made on columns which do not move with an ascertained regularity, and great fatigues attend to the soldier. A general cannot depend on execution, and therefore can make no combination of time or distance in the arrival of columns at their several points. In many situations an improperly extended column will be liable to be beat in detail, and before it can be formed. Troops that are seldom assembled for the manoeuvres of war, can hardly feel the necessity of the modes in which a considerable body of infantry must march and move.

The distance of columns from each other, during a march, depends on the circumstances of ground, and the object of that march, with regard to future formations. The more columns in which a considerable corps marches, the less extent in depth will it take up, the less frequent will be its halts, and the more speedily can it form in order of battle to the front.

On the combinations of march, and on their execution by the component parts of the body, does the success of every military operation or enterprise depend. To fulfill the intentions of the chief every concurrent exertion of the subordinate officer is required, and the best calculated dispositions, founded on local knowledge, must fail, if there is a want of that punctuality of execution which every general must trust to, and has a right to expect from the leaders of his columns.

The composition of the columns of an army must always depend on the nature of the country and the objects of the movement. Marches made parallel to the front of the enemy will generally be performed by the lines on which the army is encamped, each marching by its flank, and occupying when in march the same extent of ground as when formed in line. Marches made perpendicular to the front of the enemy, either advancing or retiring, will be covered by strong van or rearguards. The columns will be formed of considerable divisions of the army, each generally compos’d both of cavalry and infantry: they will move at half or quarter distance, and the nature of the country will determine which kind of force precedes.

During a march to the rear, the separation of the heads of the columns must unavoidably be considerable; but, when they approach the enemy, they must be regulated and directed so as to be able to occupy the intermediate spaces, if required to form in line. Some one column must determine the relative situation of the others, and divisions must be more closed up than in a march to a flank, and in proportion as they draw near to the enemy must exactness and attention increase. The general, in consequence of the observations he has made, will determine on his disposition: the columns which are now probably halted and collected will be subdivided and multiplied; each body will be directed on its point of formation, and the component parts of each will in due time disengage from the general column, and form in line.

The safety of marches to the rear must
In field marching, particularly at the drill, the whole of a company or squad, having been previously faced, are immediately to step off together, gaining at the very first step 24 inches.

The first adoption of file marching has been attributed to the Prussians, and the advocates for what is called the Obrde mince des Prussiens, the thin or narrow order, have in contradistinction named the ordre profonds, the deep order, or column, the French order. According to a very ingenious and lively writer, who has had frequent occasions to see the practice of both orders, the order mince or file marching, may be very useful during a march, but the deep order or column ought only to be depended upon in maneuvering before an enemy.

To March according to time and measure, (Marcher en cadence, Fr.) Marshal Saxe, in page 23, art. 9, of the French edition of his Histoire et Mémoires sur l'Art de la Guerre, is of opinion, that marching to time and measure constitutes one of the essential requisites in war; he calls it indeed the principal one to be observed by troops who are going into action. By marching according to time and measure, we understand, that regular movement of a large body of men whose steps are cadenced and uniformly the same, and which are kept so by the artificial aid of music.

The marshal observes, that although military men will enter into much desultory conversation respecting the tactics (la tactique) of the ancients, they seldom, or ever understand the real definition of the word. It is, in fact, so much corrupted in modern times, that what really conveyed no more than a regular principle in marching, has since been made to signify the exercise and evolutions of troops. All the world know how to beat a march, without comprehending the real object, and half the world imagine, that the noise of a drum or file is nothing more than military parade.

It is ridiculous to suppose, that martial sounds and military music, were first invented for the sole purpose of confounding each other on the day of battle. Let us indulge a better opinion on the good understanding of the ancients, particularly of the Romans, and endeavor to prove, that regularity in marching, (which depends wholly upon the cadenced steps,) is the ground-work of military operations, and that nothing is more simple because it corresponds with nature. This was, in fact, the military step which the Romans brought to so great a perfection, and which has since been so closely followed by the Prussians. It was upon this principle, that marches were first devised, and that the drum was adopted to second the purposes. This is literally nothing more than a certain beat or tact, as the marshal expresses it, and which is evidently derived from the Roman word tactus, touch, and by means of which men may be...
taught to move in quick or slow time. As soon as this precept can be followed up, the rear will never lag behind, soldiers will preserve the same step and march will be the same all the way; the wheels will be made uniformly together, without confusion or delay; and the men will be less fatigued if they were suffered to march or wheel at random. Every person of the least reflection or observation, will be convinced of the truth of this last remark. Let one man, for instance, be ordered to dance two hours, without the assistance of any sort of musical instrument, and let another, with the same bodily powers and activity, go through the same operation, during double the time accomplished by the first, and let it then be determined which of the two has been most fatigued. It will evidently appear that the former has: for it is an unquestionable fact, that sounds of concord and harmony have a wonderful secret influence over the human frame, and that they render the exercises and functions of the body extremely easy. It is well known, that when the camel drivers wish to make their camels get on, they never flog or strike them with sticks, but sing, whistle, or repeat some humorous song.

Should it be asked what sort of music is best adapted to the human organs in military movements? It may safely be replied, that genuine music. If perhaps I be told, (observes the marshal) that many men have no ear for music; this I deny, so far as the observation regards marching, which is a movement so easy to the human frame, that it comes, as it were, naturally to man. I have often remarked, that when the long roll has been struck, the men in repairing to their several parades, have insensibly preserved the regular step, without knowing that they did so: nature, in fact, and instinct go together. If marching according to time and measure be considered in a mere superficial manner, the cadence step will undoubtedly appear of little importance; but if it be considered as an essential requisite to quicken or slacken the movement of troops who are going into action, it must be found an important object.

In order to prove the validity of our observations, let us, for a moment, imagine a thing which is scarcely possible to be accomplished by troops that do not march according to time and measure. Let us suppose, that two battalions, advancing to attack one another, should march up without filling, overlapping, or breaking in the least; under these circumstances, which would obtain the superiority? the one that should imprudently have commenced firing, or that which should have reserved its fire? Every intelligent and able officer will instantly determine in favor of the latter; and his decision would unquestionably be correct; for the former, besides being disheartened by seeing men advance against them with a reserved fire, would necessarily be retarded in their march in order to prime and load; and it must be evident to every man, that the less opponents would completely overwhelm them by advancing with a rapid and cadenced step.

This was the plain and effectual method of the Romans. It may, perhaps, be said, that their ignorance of the use of gunpowder alters the case with respect to our manner of fighting. Let it, however, be recollected, that they fought with missile weapons, which did full as much mischief as our fire arms can produce. Gunpowder, in fact, is not so active as most people are apt to imagine. Few men are killed in regular fought actions, by the two armies engaging with musquetry only. Marshal Saxe does not scruple to assert, that it is impossible for a battalion of armed men to charge an army with vigor and effect, unless it preserve the cadenced step. For the ranks must unavoidably open during the march in line; and when the troops get within 50 to 60 paces of their opponents, the commanding officers see chasms, cry out arrêt, or close into the centres; and in the hurry of so doing, one rank overlaps another, and the centre itself becomes instantly broken, standing eight or ten deep, while the wings are at two, three, or four. To remedy this defect, the whole line is halted, and if the enemy be wise enough to advance in regular order, during this operation, it is ten to one that he turns the flank of his opponent, and completely routs him. With regard to the musquetry firing, it may be laid down as a certain fact, that the mischief it does in pitched battles is more imaginary than real. It has been acknowledged by the most experienced officers, it is, indeed, positively asserted by marshal Saxe, (page 29 of the folio edition) that the lowest volleys have produced little or no effect against a line of determined steady troops. I have seen, observes the marshal, a whole volley of cool directed musquetry, occasioned by no more than four men; while the troops against which it has been poured, have calmly marched up, reserved their fire till they got in contact with the en-
my, and then amply revenged the deaths of their comrades by discharging their pieces and following up with the bayonet.

It is at this stage of the battle, that a real carnage commences, and its execution rests wholly with the victorious party; and we need scarcely add, that its success must be attributed to that composed, steady movement, or cadenced step, which enabled the troops to act together, when they came to close action. The military reader will be gratified by a perusal of two or three interesting anecdotes in pages 29, 30, 31, of the Reveries, fol. edit.

March in prolongation of the line.—This operation, is gone through when a battalion, standing in open column, with the pivot flanks of its divisions on the line, and ad- vanced points of the battalions being ascertain'd, moves forward at the word march, which is given by the commanding officer. Whenever the battalion wheels into open column, in order to prolong the line on which it was formed, and that no distant point in that prolongation is previously given, the ser- vant guide of the leading company will, to a true and close formation in line or column, by each file, proceed as the pivots upon similar principles; the body being in motion, the lock-step is indispensable in every other movement by files. This movement is of two kinds. Either successive (the body being halted) by each file successively turning on its own ground, the moment it is disgaged by the departure of its preceding file; or progressive (the body being in motion) by each file turning when it arrives at the point from which the leading or head file first wheeled. In the first case the body must shift its ground to a flank a space at least equal to its front; in the second it will perform this operation of the countermarch on its original ground, exchanging flanks and fronts; so that what before stood as the leading or head division will become the rear of the column; or, in line, what was the right flank fronting one way, will still remain the right flank fronting another. In both cases the pivots are in a small degree moveable, but they must be as little as possible, since a solid and compact inversion or reversion of the leading company is requisite to a true and close formation in line or column. In the first case the front men become the pivots, on which every successive file turns, till the rear file gets upon the identical space of ground from whence the front file first wheeled. In the second case the rear men become the pivots upon similar principles of movement. All countermarches of a battalion or greater body, must be made in ordinary time; of smaller divisions in quick time. The observations which have already been made, under the head files, with respect to a solidity and quickness of movement in each wheeled, and to an unity of step, (allowing for an increased length of it in the wheeling men) are especially applicable to the countermarch by files.

The Countermarch of a battalion from both flanks on its centre, by files. In order to effect this operation of the countermarch from both flanks on its centre, the commanding officer gives the word march, which is given a small degree moveable, but they must be as little as possible, since a solid and compact inversion or reversion of the leading company is requisite to a true and close formation in line or column. In the first case the body being halted) by each file successively turning on its own ground, the moment it is disgaged by the departure of its preceding file; or progressive (the body being in motion) by each file turning when it arrives at the point from which the leading or head file first wheeled. In the second case it performs this operation of the countermarch on its original ground, exchanging flanks and fronts; so that what before stood as the leading or head division will become the rear of the column; or, in line, what was the right flank fronting one way, will still remain the right flank fronting another. In both cases the pivots are in a small degree moveable, but they must be as little as possible, since a solid and compact inversion or reversion of the leading company is requisite to a true and close formation in line or column. In the first case the front men become the pivots, on which every successive file turns, till the rear file gets upon the identical space of ground from whence the front file first wheeled. In the second case the rear men become the pivots upon similar principles of movement. All countermarches of a battalion or greater body, must be made in ordinary time; of smaller divisions in quick time. The observations which have already been made, under the head files, with respect to a solidity and quickness of movement in each wheeled, and to an unity of step, (allowing for an increased length of it in the wheeling men) are especially applicable to the countermarch by files.
at and beyond the colors. As soon as each company is in line, from the colors to the flank sergeant, its leading officer fronts it. When the whole is formed, the column counts by companies, and every company dresses to the colors till otherwise ordered. It must be remembered, as a general rule, that in the countermarch from both ranks, the eastern part of the battalion is fronted till the whole is on its ground. In the countermarch from the centre, the battalion begins instantly and successively to front by companies, as each is ready and on its ground.

The Countermarch by companies or subdivisions, on the centre of a battalion or line. Although this may be done by files, it is better, that on account of the unavoidable openings which always occur in file marching, a column, or larger bodies, will be best enabled to execute that movement with quickness and rapidity, by the march of columns of companies or subdivisions in front. To effect this object, the battalion is cautioned to countermarch from its centre by subdivisions; one or two central subdivisions having wheeled the half circle upon their centre point, or countermarched into the new line, so that the front rank stands precisely where the rear rank did; one of the wings then faces to the right about, and both wheels inwards by subdivisions: they march along the rear and front of the formed division, and successively wheel up into their respective places on each side of those already formed in the line. The subdivisions which wheel up to the rear, successively mark time, when the column halts. The officers who lead them must be particularly attentive to their wheeling points, by being at their proper front rank when they halt their subdivisions. They would otherwise pass the rear, and disfigure the formation.

If it be intended that the front rank of the directing company or subdivision, should stand on the identical line which it occupied before the countermarch, it will be placed in that direction. In that case, after the subdivision has wheeled inwards, the wing which is to march in rear of it, must shift a few paces to the flank, in order to get clear of the rear ranks, and then proceed.

When one flank of a battalion or line is to occupy the spot where the other one stands, its most expeditious movement to arrive at it, will be along the prolongation of the line. If the flanks are to exchange places with each other, the countermarch on the centre, or on a flank, is the best method by which that exchange can be effected. The single battalion may do it by files, if its ground be confined, but a line must do it by countermarch of divisions in open column.

The Countermarch in column, is the inversion of the different files which constitute the several divisions, subdivisions, or sections of which the column is composed. By which inversion the front of the column is completely reversed.

To Countermarch a column, the right in front, is to change the front aspect of the leading company, subdivision, or section, and to place it in the rear of its perpendicular formation. After the caution has been given, the leading officer or sergeant will immediately by files the whole face to the right, by word of command. Each company of leading officer or sergeant, will immediately quit the pivot, and place himself on the right of his company, subdivision, or section, whilst his covering sergeant advances to the spot which he has quitted, and faces to the right about. At the word march the whole move. The leader in the first instance wheels short round to the right, and proceeds, followed by his files of men, until he has placed his pivot flank man close to his sergeant, who remains immovable. As soon as the leading officer or sergeant of each company, subdivision, or section, has countermarched the extent of his front, he instantly gives the words mark time, so as to have it squared and closed in to the right, which is now become the pivot flank, and on which the officer or sergeant replaces the person that had advanced to ascertain the exact point of perpendicular formation, and who falls back behind the rear rank; and when dressed, halt. By means of this inversion of the files, the column will face to its rear, each company, subdivision, or section, being given its original follower its head or leading object.

To Countermarch a column, the left in front, is to make the leading company, subdivision, or section, which is now in the rear of the column, become the head of it. After the caution, to countermarch by files, has been given, at the word left face, the whole face to the left, the officer or sergeant moves to the left of his company, subdivision, or section, and the person who has covered him, moves to his place, and faces about. At the word march, the officer turns short to the left, and proceeds as before until he fixes on the left, which is now become the pivot flank, as the column stands with its right in front. In all countermarches, the facing is always to that hand which is not the pivot, but which is to become such. The countermarch of each division, subdivision, or section, separately on its own ground, is an evolution of great utility on many occasions. It enables a column which has its right in front, and is marching in an alignment, to return along that same line, and to take such new positions in it as circumstances may require, without inverting or altering the proper front of the line. In many situations of forming from columns into line, it becomes a previous operation which ought not to be dispensed with.

When a column countermarches by divisions, each on its own ground, unless the
divisions be equal, the distances after the countermarch will not be the true wheeling distances, but will be such as are equal to the front of the preceding division, and therefore the true distances must be regained before the divisions can wheel up into line with the accuracy and completion of space which are required.

Marching past by the cavalry.—At a review, or inspection, regiments, brigades, or lines, do not march past in column, but in column of half squadrons, opposite the general, and sound until the review, or inspection, regiments, brigades, are equal to the front of the preceding division. There, and not before, the dress will be in front of his leading half squadron, all its officers are in front, and in one line. The trumpets are all in front of the regiment, and when they have passed, wheel quickly round, and remain posted opposite the general, and sound till the regiment has passed, when they cease, and those of the succeeding regiments commence to dress, and preserve the same order by its commanding officer.

In passing by in half squadrons at open ranks, the commander of the squadron will be in front of his leading half squadron, covered by the standard, with which the other officers of the half squadron dress. In the second half squadron all its officers are in front, and in one line. The trumpet sound to the passing hand; after the successive wheel, which brings them on the line of passing, they will open ranks, or 20 yards, before they approach the general, and close them about the same distance after passing, and they will continue so to dress, and preserve the line, till each division wheels at the point, where the head one has changed its direction; there, and not before, the dress and covering will be made to the proper pivot flank of divisions.

The half squadrons, or divisions, will dress, and cover to the passing hand; after the successive wheel, which brings them on the line of passing, they will open ranks, or 20 yards, before they approach the general, and close them about the same distance after passing, and they will continue so to dress, and preserve the line, till each division wheels at the point, where the head one has changed its direction; there, and not before, the dress and covering will be made to the proper pivot flank of divisions.

The whole pass, (whether at open or close ranks) as one column; nor is any division, squadron, or regiment, to increase, or alter the distances it possessed, at the moment it wheeled from line into column. In passing by half squadrons or divisions, at close ranks, the standard may take the centre of the front rank of the leading one. The commanding officer is before it, other officers are at their squadron posts, and care is taken, that there shall be an officer on each passing flank.

At the drawing of swords, and general salute, on the general's approach, the trumpets sound the parade march. When the general passes along the line, each regiment successively sounds its own march, or such other as it shall be ordered, and the same is done by each regiment when it passes the general.

The general orders and field regulations have prescribed the soundings with which all generals, and other persons, are to be received; when they pass along the line, or the line before them, the trumpet soundings will be the same as when the president or governor of a state appears.

The trumpet flourish, in drawing swords, is used regimentally on their own ground, and is the sound used in receiving a major general; it is repeated twice for a lieutenant-general, and to all superior generals the march is sounded.

In parade, to receive the president, or the commanding general, the trumpets are assembled on the right of their regiments, (whether single or in line) in two ranks, and the staff beyond them. — The staff does not march past.

On all occasions of exercise, and manoeuvre, trumpets are behind their troops and squadrons, unless otherwise directed.

If the president sees a brigade, he will be received at the point of his approach in the manner already directed, by the general commanding it. If a single regiment, in the same manner by its commanding other.

After passing in parade, and in movements, and exercise, it will depend on the commanding officer of the regiment, to place the other field officers at the head of squadrons, or to assign them the supernumerary of wings, in order the better to assist.

In general, regiments manoeuvre at too great a distance from the person inspecting them; they ought to terminate many of their movements and formations within 20 or 30 yards of where he stands. Cavalry regiments, when dismounted, and formed in line, will have an interval of six paces between each.

When the regiments dismount, field officers, and adjutants, do not dismount, but remain on horseback.

When the dismounted line advances in front, at close ranks, general officers, and commanding officers of regiments, are behind the centre; other field officers are behind the flanks of the battalion.

When the dismounted line is at open ranks, field officers are on the flanks of the battalion, in a line with the men, and general officers, and commanding officers of regiments, are in front.

When passing on foot, all mounted officers are in front of the regiment, except the adjutant, who is in the rear.

General principles in Marching.— Where a large body is marching in column, or columns, through narrow ground, and when its parts are to be assembled beyond the defile in several lines, in a compact manner behind each other—such parts are not to begin to assemble when the leading one passes, but the head of each line is successively first to come up to the ground on which it is to stand, and when it halts, its proper followers (and not below) move into line with it, and thereby do not impede the bodies that are behind them, which are still in the defile, and are in perfect form the same operation.

When a new line to be marched, or formed upon, is taken up by guides commanding officers of squadrons, regiments, and all other persons whatever, will take care that during such operation, they do not stand upon, or obscure the di-
rection of that line. Too many guides should not be thrown out. In movements in column, commanding officers of squadrons, and regiments, should keep wide of the flanks, that the pivot leaders may more correctly follow each other, and that they themselves may the better see, and distinguish the relative situation of the whole.

Further, our remarks on the principles of marching, by quoting a remarkable passage out of Marshal Saxe's Revisions, which may serve to undeceive many with regard to the over-rated importance that is given to the expert handling of the firelock.

He justly remarks, that the manual and platoon exercise does extremely well to make the individual soldier under arms, but it should not engross the whole of our attention on that account. It is, perhaps, of all the branches of military acquirements, after the soldier has been taught to carry his firelock on his left shoulder, to prime and load with accuracy and dispatch, and to fire in platoon.

When once a soldier has been rendered master of these essential requisites, (and it requires little to make him so) the full possession of his legs and feet becomes the principal object of his attention.

The secret of all manoeuvres, and the consequent issue of engagements, depend upon the feet. Hence the necessity of moving to time and measure, and the wise practice of teaching the cadenced step. Officers, in particular, should be taught to feel the justness of those principles of movement, by which large bodies are enabled to act together. The motions of the firelock are easily learned, but the various changes to which the human frame must submit in marching, require something more than mere mechanical operation.

March of a train of artillery.—It has been observed in page 192, of Muller's Treatise on Artillery, that the French march their artillery much in the same manner that the British do, with this difference, that the French artillery is divided into brigades. In page 193 of Muller's treatise on Artillery, we find the following detail of a march of English artillery:

1. A guard of the army. 2. The company of miners, with their tumbrel of tools, drawn by two horses. 3. The regiment of artillery front guard. 4. The kettle drums, drawn by four horses, and two trumpeters on horseback. 5. The flag gun drawn by 17 horses, and five twelve pounders more, by 15 horses each. 6. Eleven wagons with stores for the said guns, and one spare, by three horses each. 7. Six nine pounders, drawn by eleven horses each. 8. Nine wagons with stores for the said guns, and a spare one, by three horses each. 9. Five long six pounders, by seven horses each. 10. Seven wagons with stores for ditto, and a spare one, by three horses each. 11. Five long six pounders, by seven horses each. 12. Six wagons with stores for ditto, and a spare one, by three horses each. 13. Four long six pounders, by seven horses each. 14. Five wagons with stores for ditto, and a spare one, by three horses each. 15. Two howitzers, by five horses each. 16. Four wagons with stores for ditto, by three horses. 17. Six short six pounders, by two horses each. 18. Three wagons with stores for ditto, by three horses each. 19. Six royals, with their stores, in four wagons, by three horses each. 20. One 12 pounder carriage, by seven horses; one nine pounder carriage, by five; one long six pounder carriage, by five; two short, by two; one short and one long limber, by one horse; and two forges, by two each. 21. Twenty ammunition carts, by three horses each. 22. Nineteen wagons with musquet cartridges, and one spare, by three horses each. 23. Thirty wagons with powder, and one spare, by three horses each. 24. Thirty wagons with musquet shot, and one spare, by three horses each. 25. Twenty-five wagons with intrenching tools, and one spare, by three horses each. 26. Twenty-five wagons with small stores, and one spare, by three each. 27. Six wagons for artificers, with four spare, each by three. 28. Thirty-two baggage wagons, nine by four horses, and 23 by three. 29. Thirty pontoons, and three spare carriages, each by seven. 30. The artillery rear guard. 31. The rear guard from the army.

It must be observed that there are parties of gunners and marines marching with the guns: there are likewise some parties of pioneers interspersed here and there to mend the roads, when they are spoiled by the fore carriages.

We shall now present our military readers with an extract from a French work, which has appeared since the Memoires D'Artillerie, par M. Surirey de Saint Remy, and which may put them more especially in possession of the French manner of marching their artillery, than Mr. Muller has afforded. We must however, at the same time, refer them for more copious information to the third volume of Saint Remy, page 187 to 191.

In the last edition of the Dictionnaire Militaire, the following observations are made on this important operation.
When the troops in the advanced camp of the army begin to assemble, the commanding officer of the artillery repairs to head-quarters, and communicates with the commander in chief. Utensils, stores, and ammunition, are forwarded to the camp, and every soldier is provided with ten or twelve rounds of ball cartridge, before he commences his march against the enemy. These articles having been distributed, the wagons and horses return to the train of artillery, and proper dispositions are made to connect the whole line of march.

The horses belonging to the train are narrowly inspected by the lieutenant-general of artillery, who marks or rejects them according to his judgment, and sends one report of their actual state to government, and another to the master-general of the ordnance. He gives directions to the captain-general of the wagon-train to arrange matters in such a manner with each provincial commissary belonging to the park, that the different captains may know what brigades fall under their immediate supervision. The latter must not on any account leave the brigades with which they are entrusted during the march.

The ammunition wagons having been loaded, and the horses harnessed to them, they are distributed into different brigades, and put in motion to join the main army, according to the following order:

The first thing that precedes the march of a regular train of artillery, is a wagon loaded with utensils, such as spades, pick-axes, shovels, mattocks, weeding spades, with iron bottoms; grapples, hatchets, &c. These are under the care of a wagon-master, who is attended by forty pickers to clear and point out the way.

In the rear of this wagon follow four four-pounders, mounted on their several carriages, with every necessary appendage on each side, loaded with ball, and the cannoneers ready, each having a lighted match in his hand, and two steel pickers or diggers. Next to them is a wagon loaded with different articles of ordnance, containing likewise one barrel of gunpowder, one ditto of ball, a bundle of matches, weighing together about fifty pounds, about fifty balls of the calibre of the guns and five or six sets stout drag-ropes or bricoles.

The military chest, and the king's or royal stores, generally accompany this small train, when the army consists of one column only.

The pioniers, with every thing belonging to them, follow next; and after them the carpenters, with its appendages, accompanied by the captain of artificers, with a certain number of carpenters.

Next follow the heavy ordnance.

Those pieces of artillery which are mounted, follow each other according to their several calibres, with all their necessary implements for service hanging on each side.

Then come the frames belonging to the pieces of heavy ordnance, with their implements, &c. placed upon them. The mortars follow next.

After these follow the caissons belonging to the escort of the park of artillery, military chest, quarter-master general, and captain of artificers or workmen, in which are contained the tools belonging to the different workmen and miners, together with the forges, &c.

The baggage belonging to the commanding officer of artillery, and to the several officers of the train, follow next, each wagon succeeding the other according to the rank of the several officers. It frequently happens, that the carriages with stores and provisions, and those belonging to the royal regiment of artillery move together.

After these follow the tumbrils with gunpowder, matches, sand-bags, ropes, fuses for bombs and grenades, proof-pieces, if there are any, plummets, hand-grenades, mining tools, mortar-carriages, bombs, balls, according to the different calibres of cannon, tools, and instruments for pioneers, with the spare carts.

In order to secure the regular progress and march of these different classes, it has been usual among the French, to divide them into five brigades, each brigade under the command of an artillery officer; and the whole subject to the orders of the commanding officer of artillery. All the equipage belonging to the train is distributed among these five brigades, and each brigade takes care to bring up its proportion every day to the park or spot of rendezvous. These are subject to a roster among themselves, some leading, and others bringing up the rear, according to its arrangement.

Night-Marches. Whenever marches are undertaken in the night, great precaution should be observed on the part of the commanding officer of the troops, to attach two or three faithful and intelligent guides to each column or detachment; for it may very easily happen, that in moving a considerable detachment during the night, some troops or squadrons may lose themselves, especially where there are cross-roads and difficult passes.

The commanding officer at the head of the detachment must march slow, provided the nature of his expedition will admit of it; and wherever he finds any by-roads on the march, he must post a few men there to direct the succeeding squadrons, which squadron is to repeat the same caution, and so on throughout the whole.

As it is almost impossible for squadrons to keep constantly close together, and as it almost always happens, that, in order to conceal a march from the enemy, no trumpet must be sounded, (which would otherwise serve for a direction in
as to be able to form line comes so confined, that the march in line with his aids-de-camp, &c. takes his remodeling an enemy.

To preserve its regular front, ever it shall happen unexpectedly: to meet enemy in such distant point towards the ground which is occupied by an enemy, endeavors as much safety, and the order of battle might be the same. But this is seldom or ever the case. The intervention of hills, woods, rivers, villages, and narrow passes, give, as it were, so many obstacles, that a large body of men, such as constitutes an army, must necessarily be divided into many different corps, in order, that the collective force may arrive, at a given time, within the lines of a new camp, or within sight of an enemy.

On these occasions the movements of an army are attended with considerable risk, especially if the enemy has himself taken the field; for by an untimely move, he may take advantage of the divided state of your army, and attack it piecemeal. The greatest precautions, however, are observed in modern warfare, which were either unknown to, or neglected by our ancestors. Most of these have already been discussed, as far as the limits of our undertaking would admit. The following additional observations may not, perhaps, be thought wholly superfluous.

In the first instance it will be necessary for the quarter master general, and for the different officers who compose the staff oretat-major of the army, to render themselves perfectly masters of the country through which the troops are to march. The corps of guides, especially if the march should be continued during the night, must be well chosen on these occasions; and the different captains that have the charge of them, are frequently to communicate with the principal officers on the staff, to facilitate the several movements. All the general officers must be in possession of correct topographical sketches of the country; and their aids-de-camp, &c. must not only know how to deliver orders, but they must themselves be able to calculate, (from a cursory view of the chart,) time and distance,

the night time) a good non-commissioned officer, with four or six men, must be appointed to the rear of every squadron, who are to divide themselves, and form a chain in the interval, between it and the one succeeding, in order to prevent any mistake of the road.

Before the detachment marches off, the officer commanding must be careful to extract the officers leading troops or squadrons, strictly to observe all the above directions; he must also have several orders written on a slip of paper, and, if possible, two or three guides in front.

The advanced guard must be re-inforced in the night, and march at a small distance from the main body, and whenever it happens unexpectedly to meet the enemy, it must instantly charge with all possible vigor; on which account, and in order to be in continual readiness, it must always march with advanced arms.

Secret Marches are made with a design to reconnoitre an enemy, surprise his camp, secure a post, or seize a place. They are likewise undertaken to succour troops that may be precariously situated, to relieve a besieged town, &c. It is in this service that a commander has occasion for his utmost sagacity and penetration, for, were his being discovered or betrayed.

In order to ensure success, the person who conducts the march, should have previously obtained good information relative to the different roads through which he is to pass, the disposition of the inhabitants, &c. He should also obtain correct intelligence respecting the situation of the enemy's outposts, &c.

To March for the direct purpose of fighting, every army that marches from a distant point towards the ground which is occupied by an enemy, endeavors as much as possible, to preserve its regular front, and to advance in order of battle. Whenever obstructions occur, and the ground becomes so confined, that the march in line cannot be preserved, the different squadrons and battalions must approach the enemy in such a disposition of columns, as to be able to form line in the quickest manner, and before the enemy could possibly attempt to make an impression on the advancing columns, by charging with his cavalry.

The general officers who command the several columns, in leading them forward must attentively observe each other's movement, so that their heads, at least, be upon a line, and that when they reach the ground where the whole are to deploy, this manoeuvre may be accomplished with dispatch and safety, and the order of battle be fully made, out of the reach of the enemy's horse.

The general or commander in chief, with his aids-de-camp, &c. takes his ground in such a manner as to be able to give the effect of the first fire. From being thus conveniently situated, he will know what orders to send, whether to support that part of the line which has gained ground, or to replace any particular one that may have given way. In order to accomplish this double purpose, he either makes use of the troops which have been drawn up between the two lines, as circumstances may require, or detaches from the reserve, as he judges best for the service.

The instant the line is formed, and the enemy appears in sight, every general officer must be found at the head of his division, actively employed either in leading on the troops, entrusted to his skill and valor, or in speedily remedying every symptom of disorder which may occur throughout the whole extent of his command.

The disposition of an army (to quote the words of mons. de Feuquieres) which comes to close action, differs essentially from that it assumes in a march, or previous movement. Were troops, inclined to advance over a wide space of open and unembarrassed ground, the formation of them might be the same. But this is seldom or ever the case. The intervention of hills, woods, rivers, villages, and narrow passes gives, as it were, so many obstacles, that a large body of men, such as constitutes an army, must necessarily be divided into many different corps, in order, that the collective force may arrive, at a given time, within the lines of a new camp, or within sight of an enemy.

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The science of locality, has, indeed, become so manifestly useful in all military operations, that the French have formed regular companies of topographers, who accompany their armies; a new institution, at Hay-Wycombe, England, pays much attention to this branch of necessary knowledge.

Artificers and workmen with appropriate escort, precede the several columns, in order to clear the roads, and to remove obstacles that occur. Light troops, and large detachments of cavalry, are pushed forward for the purpose of keeping the enemy in awe, and to send the earliest intelligence respecting his movements. Bridges are thrown across rivers with astonishing activity and dispatch; every thing in a word which relates to the movement of the army, is so well digested before-hand, and subsequently so well executed, that all the different corps cooperate, and readily succour each other should the enemy attack. The natural formation of the battalion is preserved, whether the grenadiers are disposed in arrangement, because the baggage was by every means so great, nor was the train of artillery. Some very sensible observations, relating and squadrons which compose the left, reserve their artillery half so extensive. The only dangers, indeed, which were to be guarded against, when the enemy was near, seemed confined to the loss of baggage and artillery. These were, of course, provided against by every able general, who naturally observed the greatest secrecy with respect to his encampment, and practised various stratagems to conceal his march from the enemy.

Some very sensible observations, relative to the manner in which troops should be managed previous to an engagement, may be found in the Révélations de M. le Maréchal de Saxe; and considerable information may be derived from Les Révélations de M. le Baron d'Espagnet, on the best method of forming the infantry for battle. See Supplément aux Révélations, page 19. See likewise Observations Militaires, tom. 1. p. 124.

Artillery and baggage are generally disposed of in the centre column. When an army marches directly forward to attack or meet an enemy, the artillery is almost always distributed in the centre; sometimes a brigade of that corps, with a body of select troops in front, precedes each column; but the heavy baggage invariably moves in the rear under cover of the reserve.

When an army marches through a woody or close country, the heads of the different columns are usually covered by a strong detachment of riflemen, preceded by squadrons of horse. Should the enemy be in your rear, when it is found expedient to make a movement, the hospital stores, ammunition, baggage, and artillery, escorted by some squadrons of horse, must be sent forward, and the best disciplined troops, with a certain quantity of artillery, are in that ease to make up the rear guard. If the enemy should have upon your flank (the right, for instance,) the artillery, stores, and baggage, must be conducted by the left: should the enemy direct his operations from the left, the same movements must take place on the right.

A small army may march in one column, having its artillery and baggage between the advanced and rear guards. Should it be brought to action, the dragons and light cavalry belonging to the advanced guard will compose one wing, and the troops that are disposed of in the rear, will form the other: the infantry will be distributed in the centre with the artillery in its front.

The French seem to have paid the greatest attention to the various details and incidental circumstances which attend the march of any considerable body of troops. It was not, however, until the reign of Louis XIII, that any sort of regular system began to prevail. There was certainly less necessity for such an arrangement, because the baggage was by no means so great, nor was the train of artillery half so extensive. The only dangers, indeed, which were to be guarded against, when the enemy was near, seemed confined to the loss of baggage and artillery. These were, of course, provided against by every able general, who naturally observed the greatest secrecy with respect to his encampment, and practised various stratagems to conceal his march from the enemy.

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Central observations on the march of troops. Observations from a French work, applicable to general service. When troops are ordered to march, four principal objects should be well considered, viz. locality, time, possible ambushes, and the ultimate end for which the march is undertaken. In order to secure these important points, some topographers (without whom no army can be said to be well constituted, or its staff sufficiently appointed) should be directed to give in plans of the country, to shew where it is intersected, where hills with their different inquisitions appear, where the roads are narrow, where the ground is soft or marshy, and unfavorable to the passage of artillery, where intricate passes occur, where there are woods, heaths, rivers, or marshes, and finally where the country becomes totally impervious. When these different objects have been well ascertained, and thoroughly digested
when the leading columns shall have passed the river. If the preservation of the bridge be considered as an object, both ends must be fortified, and adequate guards stationed to defend them.

Each corps that marches separately, such as the advanced and rear guards, and the main body, must be provided with shovels, pick-axes, and a sufficient number of pioneers and gaiters, to clear the roads, and to direct it on its march.

The following general rules in route marching have been laid down by the celebrated Montecuccoli:—

No officer or soldier is on any account to quit his post or rank. The battalion companies must never intermix with the squadrons or troops of cavalry. Squadrons or troops of cavalry must always take care not to leave such wide intervals between them, as will expose them to be suddenly cut off, or such contracted ones as might enable the enemy to throw them into confusion.

In summer, troops should quit their ground or quarters at day-break.

In winter, great care should be taken by the commissariat, to see that the troops are well supplied with fuel whenever they halt. During very inclement weather the march of troops should be greatly contracted.

Some steady old soldiers must be stationed at the different cross roads, to prevent the rear men from mistaking the line of march.

The leading columns of those troops that precede them, must instantly fall upon any body of the enemy that may attempt to oppose their progress.

Three things are always to be considered and well weighed, viz. whether there be much ground to apprehend a serious attack from the enemy; whether there be little ground to fear him; or whether there be no ground at all.

In the latter case each corps of cavalry and infantry, marches separately, and with its own baggage.

All convoys, containing stores and ammunition, move with the artillery accompanied by an officer from the adjutant or quarter-master general's department, who has the direction of the march, as far as regards the convoy itself; but cannot interfere with the artillery; the commanding officer of the latter being presumed to know best, when and where his park should halt, &c. A very sensible observation on this head may be found in a recent French publication, intituled, Manuel du Adjudant Général, by Paul Thielcault. The whole of which is published under the article Vieux des in the Ann. Mil. Lib. On the evening preceding a march, each corps is specifically furnished with the necessary orders in writing.

At the hour which is named in general orders for the troops to commence their march, the quarter-master general, and the

at head quarters, the component parts of the army must be so distributed with respect to the battalions of infantry, squadrons of horse, artillery, and baggage, that the front of the leading column shall invariably correspond with the extent of the road or detile which is to be marched over.

When troops are ordered to march through an inclosed country, the whole army is divided into a given number of columns, which successively follow each other, and are encamped, cantoned, or quartered separately. Sometimes the country is cleared, as much as circumstances will admit, in order that the several columns may advance, while the artillery, under an escort of infantry on each side, and with cavalry distributed upon both wings of the army, makes the best of its way through the main road. Small detachments, consisting of active, spirited young men, headed by intelligent and enterprising officers, are sent forward to take possession of the different defiles, woods, passes, and to post themselves close to an enemy's post, for the purpose of blocking it up until the whole of the army has marched by.

The leading columns should always be composed of tried and steady soldiers; and the front of each should invariably consist of the best men in the army.

The advanced and rear guards must be well supported by infantry, with the addition of some light field pieces. The order of battle is so arranged, that the heavy ordnance, the baggage, and the greatest part of the cavalry, which can be of little use on the wings, may be distributed in the centre.

When it is necessary to cross a river, the artillery must be planted directly opposite to the post which the army intends to occupy. Considerable advantage will accrue should the river wind in such a manner as to form a reentrant angle in that particular spot, which advantage would be greatly increased by having a ford near.

In proportion as the construction of the bridge advances, some steady troops must be marched forward, and a regular discharge of musquetry must be kept up against the enemy on the opposite bank.

The instant the bridge is finished, a corps of infantry, with some cavalry, some pieces of artillery, and a certain number of pioneers, to fortify the head of the bridge, must be ordered over. Should there be the least ground to suspect an attack upon the rear guard, the inside tête de pont must also be fortified.

Proper precautions will have been taken to prevent any surprise during the construction of the bridge, and while the troops are crossing. Each side of the river above and below the bridge, will on this account have been well reconnoitred, to ascertain that there are not any armed barges or floating rafters with ferrules upon them, kept ready to blow up the bridge, when a considerable part of the army shall have passed the river. If the preservation of the bridge be considered as an object, both ends must be fortified, and adequate guards stationed to defend them.

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If the army should be divided, and escorts to accompany the artillery, details, who are to reconnoitre in front, of all they observe to head quarters.

To these must be added appropriate guards belonging to the camp, to protect the baggage, waggon-train, &c. in the most secure and best defended spot.

The two first lines of the army will consist of the mounted artillery in front, next to which will stand the different squadrons of horse that are posted in intervals between the infantry battalions; after these will follow the train of carriages, &c. in as many files as the road will admit; then the stores and baggage, and finally the reserve.

Whenever the leading columns have passed an obstacle, the front man must be halted till the rear have completely cleared it likewise; and when the whole enters an open country, the line must be formed, and the march be continued in order of battle until a fresh obstacle occurs, when the troops must be prepared to pass the defile, the advanced guard leading, the main body following, next, and the reserve bringing up the rear.

When an army is thus advancing, the right or left flank (according to circumstances) of its line of march, must be covered by rivers, and banks, rising grounds, or eminences; and if these natural advantages do not present themselves, artificial ones must be resorted to. These may consist of waggon-trains, chevaux de frise, or other temporary means of defence; the quantity, &c. must depend upon the natural features of the country, and the number of troops that compose the columns.

It is, however, impossible to set down any general rules for all cases; these must vary with the manifold circumstances that occur, and the different designs which are to be accomplished or pursued.

When the movements of an army are to be concealed, the march must be undertaken at night through woods, valleys, or concealed ways; no loud instruments must be played; and if fires are made, they must only be lighted on the eve of breaking up camp, in which case they must be left burning, for the purpose of deluding the enemy into a supposition, that the troops have not moved.

Small parties of cavalry are sent forward to seize all stragglers or scouts from the enemy, or to take possession of the different passes. In order to avoid being discovered in the object of the march, a different road must be taken from the one which you really propose to march through; and a fit opportunity must afterwards be embraced to get into the real track. Before you march out of a town or fortified place, the utmost care must be observed to prevent your intended

Field-pieces, with a sufficient quantity of ammunition, shovels, spades, and pick-axes always at hand, must be disposed along the most vulnerable part of the rendezvous; these must be guarded by a body of cavalry and infantry, who are to be selected for that specific duty.

Care is likewise taken to lodge the baggage-wagons, &c. in the most secure and best defended spot.

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route from being conveyed to the enemy. On this account the troops must be first marched out, and the gates immediately shut upon the rear, so that no stranger, &c. may be able to slip out with the men.

During a march of this nature, the troops must be provided with subsistence, stores, and ammunition, to last out until the object is attained. No scout or vedette is sent forward, when an army, or any part of it, advances to take possession of a post or place, to accoum a town, to surprise an enemy, in a close or woody country, by favor of the night, or in hazy weather, or on any occasion when orders have been given to oppose and fight every thing it meets.

When an army marches for the direct purpose of forcing a passage, which is guarded by an enemy, a feint must be made in one quarter, whilst the real object is vigorously pursued in another. Sometimes you must appear suddenly disposed to make a retrograde movement, and then again as suddenly resume your progress; sometimes march beyond the spot you wish to occupy, insensibly drawing off the enemy’s attention; and whilst the whole army is thus pursuing forward and is closely watched by its opponents, (who hang upon the flanks, and hug its line of march) let detached parties of cavalry and foot, that have lain in ambush, suddenly surprise the passage, and post themselves upon it.

When it is found expedient to advance rapidly into a country for the purpose of surprising an enemy, getting possession of a town or place, or avoiding superior forces, every species of baggage must be left behind (even the common necessaries of the men: if circumstances require,) the cavalry must be sent forward, and the infantry put in carts, carriages, and chaises, or mounted behind the dragoons. If there be spare horses enough in the different corps, or any can be procured from the inhabitants of the country, they must be led in order to relieve those that are already on the march, advance with all the expedition they can, to the spot of their several bâchus, at the camp or given point of rendezvous, for the purpose of being reviewed by the conqueror, the grand vizier or the sultan. This order is observed likewise by the janizaries when they repair to a similar place.

The third order of march must be considered as a real military movement. It is that which is performed by the army that first takes up its ground in a regular manner, and encamps. This is the commencement or beginning of military marches, because from a situation or arrangement of this sort, troops either leave one camp to pitch their tents elsewhere, or return again to their old one after having made an attempt against an enemy’s post, &c.

As soon as these pavilions or tents have been thus pitched, all the different armed corps that have not yet commenced their march receive their route; and those that are already on the march, advance with all the expedition they can, to the spot of general rendezvous. The troops from Egypt and Asia are particularly alert on these occasions, most especially if the war should be carried into Hungary. All the points from whence embarkations are to take place, appear conspicuously marked along the coast of the Marone, Propontides, and the Archipelago, in order that the different bodies of troops may take the direct road to Constantinople, Philipolis Sophia, Nissa, and Belgrade, in which places was the general rendezvous of all the troops, when the Ottoman empire flourished. These, however, were not included which were destined to act in Hungary and Bosnia. They met together, after having passed the bridge of Osak, and formed a junc-
The second march of the Turkish or Ottoman army, is a business of mere parade or ceremony. This movement is observed by all the different corps, and it is executed with great magnificence by the Baches, particularly so when they repair the first time to the camp of general rendezvous.

With respect to the third march, it is a real and essential movement, and ought to be called the military march or route. Four principal branches or objects of service, constitute the nature of this march, and form its disposition. These are the cavalry, infantry, artillery, and baggage; in which latter are included the stores, &c. belonging to the Turkish militia, the royal provisions, public stores, and ammunition, comprehending gunpowder, shot, match, spades, pick-axes, &c.

There is, however, no invariable rule attached to this arrangement, it alters according to circumstances and place.

The real or military march of the troops is entirely managed by the grand vizier, or the seraskier. Written instructions are issued out for this purpose; for the Turks never give out verbal orders, except in matters of little or no importance, or in cases of extreme emergency, when they cannot commit them to writing.

It is an invariable maxim among the Turks, whenever their troops are upon the march, to throw new bridges over rivers, or to repair old ones, to clear public or bye roads, to fill up ditches, and to cut down trees, &c. so as to facilitate their arrangements; or to repair old ones, to clear public or bye roads, to fill up ditches, and to cut down trees, &c. as to facilitate their movements, and to obviate delay. They moreover throw up small heaps of earth, which they call taba, at the distance of half a league from each other, and often nearer, especially on high grounds. When the sultans marches at their head they make two heaps of this description.

The Turks pay very particular attention to their movements or marches on service; the whole of the army is under arms during the night, in order to make the necessary dispositions; on which occasions the soldiers make use of small vessels with fire lighted in them, and tie them to the ends of long pikes or poles. The greatest silence is observed during the march; neither drums, trumpets, nor cymbals are heard. Sometimes, indeed, but his rarely happens, the drummers belonging to the band of the grand vizier, accompany the salutes or ceremonial complements which are paid by the salam-agais, or master of ceremonies.

When they march through a country in which there is no cause to apprehend surprise or hostility, the infantry generally takes the lead, two or three days march, in front of the main army. The troops march in the lowest manner, being neither confined to particular companies, nor formed in columns. They choose what roads they like best, halt where they please, and reach the camp in detached parties; with this injunction, however, that the whole must arrive at the spot of rendezvous before evening prayers.

Next to these follow the cavalry, headed by a general officer. Their march, notwithstanding his presence, is as irregular as that of the infantry. The men frequently halt out of mere laziness, and under presence of refreshing their horses; and little or no attention is paid to system and good order. The baggage and ammunition wagons, together with such stores, &c. as are carried by beasts of burden, move in the same manner.

When the army enters an enemy's country, the whole of the infantry is collected together, and marches in one body. The cavalry and the seraskier, for instance, form one column. There is this distinction, however, observed, that every January marches under his own colour, and every officer remains attached to his oda or company, for the purpose of executing, in the speediest manner, the commander in chief's directions.

The cavalry is often divided into two wings; it is likewise frequently formed in one body. Every man is ranged under his own standard. The squadrons are commanded by the alay-begs, who receive orders through the seraskier; and the other officers are near the baches.

The baggage sometimes moves in the front, and sometimes in the rear of the janizaries. A particular body of cavalry, called topcaly, are an exception to this arrangement: the men belonging to this corps are obliged to furnish themselves with all the necessaries of life, and consequently carry provisions, &c. with them, in all their marches; which circumstance unavoidably creates much confusion.

The artillery is generally attached to the infantry; sometimes, however, it moves with the cavalry.

When the Turkish army marches through an enemy's country, it is covered by an advanced and a rear guard. The advanced guard is composed of five or six thousand of the best mounted cavalry. This body is under the immediate orders of a commanding officer, called kiakagy-dag, whose appointment lasts throughout the whole of the campaign. The advanced guard usually moves six, seven, or eight leagues in front of the main body; but it falls back in proportion as the enemy retires. When there are bodies of Tatars or auxiliary troops from any of the rebellious provinces with the army, they are detached in front of the advanced guard, for the purpose of harassing the enemy's rear, pilaging the country, and committing those excesses which are not countenanced by regular troops.

The rear-guard generally consists of one thousand horse. It is the business of this body to escort the baggage safe into
camp, and not leave it until the whole be
securely lodged.

The Turks, in all their movements on
the march, display uncommon activity;
and their marches are generally so well
managed, that an enemy runs the greatest
hazard of being surprised.

**Regen's March.** A tune which is
played by trumpeters or fifers of a regi-
ment (as the case may be) for the purpose
of drumming out any person who has be-
haved disorderly, &c. in a camp or garri-
sion. Thieves, smugglers, &c. are fre-
quently disguised in this manner; being
marched down the front of a battalion;
from right to left, and along the rear;
after which they are conducted to the gate
where they receive a kick on the posterior.

They are warned never to appear within the limits
of either place, under pain of being severe-
ly punished.

**Marchands, Fr.** Shop-sellers, ped-
lars, &c. Men of this description al-
ways flock round and follow an army on
its march. As they generally deal in ar-
chitectures, display uncommon activity;
and their marches are generally so well
managed, that an enemy runs the greatest
hazard of being surprised.

**Marche.** Fr. A term given to those corps who had not any permanent
quarters, but were liable to be sent not
only from one end of Great Britain to
another, but to the most distant of her
possessions abroad. Although the word
marching is insensibly confounded with
those of line and regular, it was originally
meant to convey something more than a
mere liability to be ordered upon any seri-
vice; for by marching the regular troops from one town to another, the inhabitants, who from time to time had been jealous of a standing army, lost their sympathy to real soldiers, by the occasional absence of regular troops. At present, the English guards, militia, and fencibles, may be considered more or less as marching regiments. The marines and volunteer corps have stationary quarters.

St. MARCOU. Two rocks upon the coast of Normandy, lying in a bay or bay between Cape Bartier and Point Percé, bearing south-east from La Hogue nine miles, from the mouth of the river Eau, north, eight miles, and distant from the body of the French shore about four miles. The surface of each island, which is 18 or 20 feet above the level of the sea at high water, comprises about an acre, and bear from each other 20 yards. The abandonment of an expedition to the islands of Chossé, in the year 1755, sir Sidney Smith, whose active and comprehensive mind, justly concluded that if the conjunction of these posts to the continent, would materially facilitate communications with the coal docks, took possession of them; and having drawn the hedges and sandhills gun vessels on each to their respective commanders the direction of the spot upon which he was thus placed. These officers having constructed batteries, mounted in them the guns belonging to their vessels, and in the year 1796 block houses, with detachments of marines, invalids, and 12 artillery men, were ordered out by government.

The extreme annoyance of these rocks to the coasting trade of the enemy, at length determined them to employ a part of the division of the army destined for the conquest of England, in their recovery, and 15,000 troops being assembled at the Hogue, 9000 were embarked on the 6th of May, 1796, on board 50 gun-vessels; when so great was the solicitude to partake in this conceived certain prelude to their glory, that several of the fourth demi-brigade of the army of Italy, whose tour of duty did not entitle them to be thus employed, gave four and five crowns, each, to others to change with them. Perfectly acquainted with the situation of the islands, the French flotilla rowed towards them in the night of the 6th, and at the dawning of the morning of the 7th, the weather being perfectly calm, they were discovered in a body between the islands and the shore. They soon separated into three divisions, one of which, comprising the heavy gun brigs remained in that position, while the other two, consisting of large flat boats, carrying a long 18 pounder in the bow, and a 6 pounder in the stern, took position to the north and to the south of the islands, with an intention to drop into the passage that separates them. An animated and well directed fire was commenced from the islands, and warmly returned by the enemy. The northern division having been driven by the ebb tide within a short distance of the east island, soon became disabled in their oars, and considerably increased its distance, while the attention of the two islands was principally directed to the southern division, which came with the tide, and with almost unexampled gallantry pushed to the attack; being however by the severity of the fire that was kept up, foiled in its intention of getting between the islands, when each island would be exposed to the fire of the other. It passed quickly to the westward of the west island, and pulling up on the northern side of that island, the defence of which was almost wholly dependent on the flanking fire of the east island, made another determined effort to land. This appears to have been the critical period of the day, and the discharge of grape shot from the islands was proportionate to the danger; the entire side of the commodoty of this division's vessel was battered in, and she sunk; the others of the division beaten and disabled, retreated to their companions, and being reduced to the number of 47, they all retreated to La Hogue, amidst the deriding taunts and huzzas of the English, 400 of whom, with about 50 pieces of cannon, and were of a small calibre, and placed in works constructed by themselves, by vanquishing the advanced guard of the army of England, with the loss of 100 killed, drowned, and wounded, dispirited the terrors of a French invasion.

The action lasted two hours and ten minutes, during which time there were upwards of 100 pieces of cannon firing on the islands; notwithstanding which the loss on our side was only one killed and two wounded. English Mil. Dict.

MARDIKERS, or Topasses, a mixed breed of Dutch, Portuguese, Indians, and other nations, incorporated with the Dutch at Batavia, in the East Indies. Mardikers, in all probability, derive their name from some original adventurers, who left a place, called Mardes, about four miles from Dunkirk, and formerly subject to, or forming part of the seventeen United Provinces. When the Dutch took possession of that territory which is now Batavia, these adventurers were perhaps the leading party, and from their being called Mardikers, the natives in those quarters insensibly attached the term to all persons of European descent, or connection. All, in fact, who wear hats are distinguished among turban-natives by the appellation of Topasses, and Mard kes, and from that circumstance are confounded in the term, with respect to Batavia. Eng. Dict.

There is a mistake in this—the word Top signifies a gun, as well as a hat; those who carried guns instead of spears, were called Topasses; the topasses of the Mardikers, or those of the Mardikers, or the Hat coast, where in fact they were first embodied by the Portuguese, wore no
MARECHAL de camp, Fr. a military rank which existed during the French monarchy. The person invested with it was a general officer, and ranked next to a lieutenant-general. It was his duty to see the army properly disposed of in camp or quarters, to be present at all the movements that were made; to be the first to mount his charger, and the last to quit him. He commanded the left in all attacks. The appointment, under this distinction, was first created by Henry the fourth in 1598.

MARECHAL-general des camps et armées du roi, Fr. A post of high dignity and trust, which, during the French monarchy, was annexed to the rank of MARECHAL de France. Military writers differ with respect to the privileges, &c. which belonged to this appointment; it is, however, generally acknowledged, that the general officer who held it, was entrusted with the whole management of a siege, being subordinate only to the constable, or to any other MARECHAL de France, who was his senior in appointment.

MARECHAL-general des logis de l'armée, Fr. This appointment, which existed during the old French government, and has since been replaced by the chef de logis-major, corresponds with that of quarter-master general in the British service.

MARECHAL de bataille, Fr. a military rank, which once existed in France, but was suppressed before the revolution, or rather confined to the hr.ily guards. An officer, belonging to that corps, received it as an honorary title. Its original function, &c. with respect to general service, sunk in the appointments of MARECHAL de camp, and major-general. It was first created by Louis the XIII. The MARECHAL-general des logis de la cavalerie, Fr. This appointment took place under Louis the XIX. He had the chief direction of every thing which related to the French cavalry.

MARECHAL des logis dans la cavalerie, Fr. The quarter-master of a troop of horse was so called in the French service. In the old system every infantry regiment had one mARECHAL des logis; two were attached to each company of the gendarmes; each troop of light horse had likewise two; and every company of rauquettiers had eight.

MARECHAL des logis de l'artillerie, Fr. an appointment which existed in France before the revolution, and which was in the gift of the grand master of the ordnance. This officer always accompanied the army on service, and was under the immediate orders of the commanding officer of the artillery.

MARECHAL des logis pour les vivres Fr. a person belonging to the quarter-master general's department, so called in the old French service.

La MARECHALE, Fr. Marshal's lady, i. e. wife, was so called in France. We have already mentioned la colonelle, &c. This practice has indeed, of late, obtained in England, but not in the unlimited manner which prevailed among the French. We use it merely to distinguish two ladies of the same name and family, or neighborhood, viz. Mrs. Johnson, and Mrs. colonel Johnson; meaning thereby that the latter is the wife or widow of colonel Johnson.

MARECHAUSSÉES de France, Fr. A species of military police, which has long existed in France. During the French monarchy there were 31 companies of MARECHAUSSÉES à cheval, or mounted police-men. After twenty years service the individuals who belonged to this establishment were entitled to the privileges of invalid corps, being considered as a part of the gendarmerie.

These companies were first formed for the purpose of preserving public tranquility, and were distributed in the different provinces of the kingdom. They consisted of provosts, lieutenants, exempt, brigadiers, sub-brigadiers, and horsemen. This useful body of men was first formed under Philip the first, in 1080: they were afterwards suppressed, and again re-established in 1720, as constituting a part of the gendarmerie of France.

The uniform of the MARECHAUSSÉES, or mounted police men, consisted of royal blue cloth for the coat, with red cuffs and linings; the waistcoat of chamois color, lined with white serge; a cloak lined with red serge; the buttons of plated silver placed in rows of three each, with intervals between them; horseman’s sleeves, with six silver loops with tassels. The brigadiers and sub-brigadiers, had silver lace one inch broad upon their sleeves; their cloaks were made of blue cloth with red cuffs, and their head-dress consisted of laced hats. The private horsemen wore handkerchiefs.

There were other companies of MARECHAUSSÉES, who were particularly distinguished from the thirty-one we have mentioned. Such, for instance, as that of the constable, called the gendarmerie.

MARECHAUSSÉES de France, camps, et armées du roi, Fr. That which was under the immediate direction of the provost-general of the isle of France, and that which belonged to the mint.

The first of these companies is said to have been formed under the first race of French kings: the second by Francis the first; and the third by Louis XIII. There were, besides, several small bodies of troops, composed of officers, and soldiers who had served, that remained stationary in the principal towns to assist the civil magistrates. Those in Paris consisted of three companies; the compa-
ny belonging to the lieutenant criminel de Rade, general de Rade, or to that particular court of
judicature which was superintended by the procure de la Mauchonaise, and which Charles the 1Xth
attached to the gendarmerie: the independent company
or the mounted police, called Guet à Cheval;
and the company of the police or foot
patrole, called Guet à Pied, which was
again subdivided into two companies, in
order that one might do the duty of the
quays. These companies were under
the immediate direction of the secretary of
state for the interior department of Paris.
The authority, or night patrol, seems
to have been first established by Clotaire
the second. The commanding officer of
the seamen, or chevalier ducust, during
the reign of St. Louis was called milite-
guel.

MARENGO, a plain and village in Ita-
ly, about one league distant from Tortona,
so called. These spots have been rendered
genorable in military history by the ob-
minate and decisive engagement which
took place on the 14th of June, 1800,
between the Austrians, commanded by
general field marshal Melas; and the re-
publican French army, under the direction
and personal guidance of Bonaparte, the
first consul. According to a very recent
publication, translated from the French
publications, particularly for the spec-
dy convergence of small bodies of troops.
It consists of a four wheel carriage, of equal
height with a common axle-tree, having
a platform sufficiently elevated to suffer
the fore wheels to pass under it when on
the lock. In the centre of this platform
is an upright back, with a seat on each
side, resembling the seat of an Irish car;
so that about six soldiers might sit on
each side, back to back. On the plat-
form, and attached to the axle-tree, nearly
each corner, are four stout stumps on
knee-hinges, that allow them to turn
down flat on the platform, or to be fixed
upright when they serve, by a crutch
which fits into a hole as a rest for rifles,
or for a peice of horse light artillery; on
the crutch being taken out it fits into the
hole after the manner of a swivel on board,
ship.

MARGA SEERSHA, Ind. a month
which partly agrees with October.

MARRIAGE. It is generally under-
stood in the British service, that no so-
dier can marry without the previous
knowledge and consent of his captain,
or commanding officer. There is not, how-
ever, any specific regulation on this head.
The regulations respecting the marriages
of officers and soldiers in the old French
service, were extremely rigid.

MARIN, Fr. Any thing appertaining
to the sea. Arrive le pied marin, to have
sea-legs, or to be able to stand the motion
of a vessel in rough water, and to go
through the different functions of navi-
gation. Marin is likewise used to dis-
tinguish a sea-faring man (homme de mer)
from *Marinir*, which literally means a sailor.

**La Marine.** The French navy is so called.

*Marine*, implies, in general, the whole navy of a state or kingdom, comprehending all the dock yards, and the officers, artificers, seamen, soldiers, &c. employed therein, as well as the shipping employed by the merchants for military or commercial purposes; together with whatever relates to navigation, ship-building, sailors, and marines.

The history of the marine affairs of any one state is a very comprehensive subject; much more that of all nations. Not only the preservation of that share of commerce which the British possess, but its future advancement, and even the very being of Britain, as an independent nation, depend on the good condition and wise regulation of the affairs of the marine, than on the superior strength of its naval power. The Delphic oracle being consulted by the Athenians, on the formidable armament and innumerable forces of Xerxes, returned for answer, "that they must seek their safety in wooden walls." To which the British affirm, that whenever their nation in particular has recourse to her floating bulwarks for her security and defence, she will find wealth, strength, and glory, to be the happy and inevitable consequence.

**Marines, or Marine Forces,** a body of soldiers, raised for the sea-service, and trained to fight either in a naval engagement or in an action on shore.

Officers of marines may sit on courts-martial with officers of the land forces. See British Mutiny Act, sect. 13.

The great service which this useful corps has frequently rendered, entitles it to a fair claim in every publication that treats of military matters. In the course of former wars the marines have distinguished themselves by great perseverance, strict attention to duty, and unquestionable valor. At the siege of Brissac they rose into considerable notice, although they had, at that period, been only recently formed, and were scarcely competent to military discipline. When the marines are on sea, they form part of the ship's crew, and soon acquire a knowledge of nautical practice. Their officers are directed by the admiralty, (under whose immediate control they serve,) to encourage them in every disposition to become able seamen; but no sea officer has the power of ordering them to go aloft against their inclination. During an engagement at sea, they are of considerable service in scouring the decks of the enemy, by firing musketry from the poop, round top, &c. and when they have been long enough out to obtain good sea-legs, they are preferable to more seamen, especially when the enemy attempts to board, in which case the marines can raise the poop, quarter-deck, forecastle, &c. with their fixed ladders, and prevent the completion of their design. In making this observation, we are necessarily led to recommend a more frequent use of the pike. Not only the seamen, but the marines, should be well exercised in the management of that weapon. The interior regulations for the several marine corps, have been well digested, and do credit to the establishment.

If any fault can be found on that head, it must relate to the slops, which are given in too large a quantity, considering the little room that a marine must occupy on board. No commissions are bought or sold in the marines; every individual rises according to his seniority; but a marine officer never can arrive at the highest rank or pay which exists upon the establishment; one general, one lieutenant general, one major general, three colonels, and one lieutenant colonel commandant, being naval officers with those additional distinctions. It is not within our province to enter into the wisdom or the injustice, not to say ignorance of that policy, which with a series of indisputable claims to notice, still keeps the marine establishment upon the lowest footing of military honor and reward.

The marine forces have of late years been considerably augmented; and we make no doubt but they will continue to be so, from the many confessed advantages which are derived from the peculiar nature of their service. They at present consist of 140 companies, which are stationed in the following manner in three principal divisions:

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The siege of St. Jean D'Acre, fabulous as the defence of it may hereafter appear from the extraordinary means which were made use of to reduce the place, and the more extraordinary exertions which suc-
ceded in preserving it, will long be remembered, by the two first civil nations in Europe, and will form a brilliant part of the records of the Turkish empire. When posterity shall read the account, it may doubt the relation in its full extent of wonderful hardihood on both sides; but it will rest satisfied, that the garrison of St. Jean D'Acce would not have resisted the first approach of Bonaparte's army, had not a handful of British marines stood in each breach, his soldiers made, and communicated courage and perseverance to the natives of the place.

It has already been remarked, that the marines are nominally under the command of three general officers, who are admirals, or vice-admirals in the navy, and three colonels belonging to the sea service. The marines themselves never rise beyond the rank of colonel commandant in their own corps, but they may be general officers with respect to the army at large. According to the last printed list there is one colonel commandant, properly so called, with the rank of major general in the army; three colonels commandant and captains, two of whom have the rank of major general in the army; three second colonels commandant and captains, two of whom have the rank of major general in the army; nine lieutenants colonels and captains, six of whom have the rank of colonel in the army; and three of that of lieutenant colonel; nine majors and captains, one of whom has the rank of major general in the army, and eight that of lieutenant colonel; nine lieutenants, six adjutants, and one quartermaster. The list of those field officers who have been permitted to retire upon full pay, contains one colonel, one lieutenant colonel with the rank of major general, one major with the rank of major by brevet, in the army, 15 captains, 20 with the rank of major by brevet, and one with that of lieutenant colonel by brevet; eight first lieutenants, and three second lieutenants. There are four reduced field officers, two of whom have the rank of lieutenant colonel; 92 captains, one with the rank of captain in the army, one as field officer in the India company's service, and nine with the rank of major by brevet; six reduced captain lieutenants, 62 reduced first lieutenants, four of whom have civil employments; 156 second lieutenants, one of whom has a civil employment; and one reduced adjutant. There is one paymaster to the marine establishment, who does not hold any military situation.

The American marine corps, like the British, is a separate establishment; the true system for a military establishment, would be to have the whole force consist only of horse and foot; and all instructed alike in the uses of small arms and artillery; then a selection of artillerists and marines could always be made by skill and not as now by chance. MARK a note, character, &c. set upon a thing.

MARK also denotes money of account. The English mark is 13s. 4d. among the Saxons it was equivalent 107s. 6d. English money. It is also a money of account in Scotland, and formerly a silver coin, being equal to 152. and one third English.

Gunpowder MARKS. The different sorts of gunpowder are distinguished by the following marks on the heads of the barrels. All gunpowder for service is mixed in proportions according to its strength, so as to bring it as much as possible to a mean and uniform force. This sort of powder is marked with a blue L. G. and the figure 1, or with F. G. and the figure 3, whose mean force is from 150 to 160 of the coupouette. This is the powder used for practice, for experiments, and for service. The white L. G. or F. G. is a second sort of powder of this quality. It is sometimes stronger, but not so uniform as the blue L. G. It is therefore generally used in filling shells, or such other things as do not require accuracy. The red L. G. or F. G. denotes powder entirely made at the king's mills, with the coal burnt in cylinders, and is used at present only in particular cases, and in comparisons, and to mix with other sorts to bring them to a mean force. The figures 1, 2, or 3 denote that the powder is made from saltpetre obtained from damaged gunpowder; 4, 5, or 6, from saltpetre obtained from the grouth. See pages 123, 124, of the Little Bombardier.

MARK is shot at. A round or square piece of wood, which is generally painted in red and white circles, and has a black spot in the centre called the bull's eye; then a selection of artillers and marines would be made by skill and not as now by chance. The national guards did the same duties would answer all the purposes of home defence.

MARK time. —To mark time is to move
each leg alternately in quick or ordinary time, without gaining ground. This is frequently practiced when a front file or column has opened too much, in order to afford the rear an opportunity of getting up; and sometimes to let the head of a column disengage itself, or a body of troops file by, &c.

Knights of St. Mark. An order of knighthood which formerly existed in the republic of Venice, under the protection of St. Mark the evangelist.

To de Marred. Marshal Saxe, in his letters, proposes that every soldier should be marked in his right hand to prevent desertion. He recommends the composition which is used by the Indians; and grounds the propriety of his plan upon the custom which prevailed among the Romans, who marked their soldiers with a hot iron. We mention this as a suggestion grounded upon good authority: but we by no means recommend it as an adoption which would be palatable.

Marksman, men expert at hitting a mark.

Lignt-armed Marksmen, men that are armed and accounted for very active and desultory service. See Riflemen.

Austrian volunteer Marksmen, a corps which has been formed in the hereditary dominions of the emperor of Germany, and is daily increasing by recruits and volunteers from the Tyrol, &c. The success which has uniformly attended the French Tirailleurs in all their actions, has induced other nations to pay great attention to the formation of similar corps.

Marlins, in artillery, are tarred with skins, or long wreaths or lines of untwisted hemp, dipped in pitch or tar, with which cables and other ropes are wrapped round, to prevent their beating and rubbing in the blocks or pulleys through which they pass. The same serves in artillery upon ropes used for rigging gins, usually put up in small parcels called skins.

Maroon, a piece of brass or copper about the size of a crown, on which the hours for going the rounds were marked, in the old French service. Several of these were put into a small bag, and deposited in the hands of the major of the regiment, out of which they were regularly drawn by the sergeants of companies, for the officers belonging to them. The hours and half hours of the night were engraved upon each maroon in the following manner—Ronde de dix heures, de dix heures et demie. The ten o'clock rounds, or those of the half hour past ten.

These pieces were numbered 1, 2, &c. to correspond with the several periods of the night; so that the officers for instance, who was to go the ten o'clock rounds, had as many maroons marked so, as there were posts or guard-houses which he was directed to visit. Thus on teaching the first, after having given the
The French frequently use the word in a figurative sense, viv. Les travaux de Mars, the labors or exploits of Mars; le métier de Mars, the military profession.

MARSAGLIA; near Turin in Italy, at the battle of 24th September, 1693, the battle and place are memorable for being the first at which bayonets were used at the ends of muskets, and to this the French owed the victory.

The MARSEILLOIS, or Marseilles army, a national march adopted by the French during the course of their revolution, and since regularly played in their armies when they go to battle. It is frequently accompanied, or rather succeeded by the Cs Ira, a quick lively tune; the former being calculated for slow or ordinary time, and the latter for quick movements.

MARS, in its primitive signification means an officer who has the care and charge of horses; but it is now applied to officers who have very different employments.—In a military sense, it means the commander in chief of all the forces. It is likewise given as an honorary rank to general officers who have no immediate command. See General.

Marse of France, was an officer of the greatest dignity in the French army. It was first established by Philip-August, in the year 1188.

The French military institutions under the empire, has an establishment of marshals, which is a title of military honor given to generals of pre-eminent merit.

PROVOST-MARSHAL, an executive officer, whose duty is to see punishments put in force, when soldiers are condemned to death, or are to be otherwise chastised. Every army is provided with a provost-marshal general, who has several deputy generals under him. By the several regulations it has been ordained, that in case the army should take the field in Great Britain, the deputy generals which may be wanted for the construction of the battery, and along which the men may securely drag the various pieces of ordnance. This road must be ten feet high at least.

The provost-marshal will be particularly directed, in making his rounds, to execute the awful punishments which the military law awards against plundering and marauding.

And in order to assist him in the discovery of such persons as may be guilty of those offenses, the regiments encamped near villages, will send frequent parties into them, to apprehend such persons, as may be there without passes, or who having passes, may behave improperly.

If any soldier is base enough to attempt to desert to the enemy, he will suffer immediate death.

Any person forcing a safeguard will suffer death.

These punishments will attach equally to the followers of the camp, or to soldiers, and must be explained to them by the officers commanding the regiments by which such followers are employed.

The articles of war have decreed punishments for the following offences:

Death is the absolute punishment for cowardice, or misbehavior before an enemy, or speaking words inducing others to do like.

For mutiny, or concealing a mutiny, desertion, sleeping on a post, or quitting it before relieved, plundering after victory, quitting a post in battle, compelling an officer to abandon or give up his post, or persuading others to do the like, corresponding with an enemy, and striking refusing to obey any superior officer in the execution of his duty, a court-martial may inflict death, or any other punishment it may judge adequate to the offence.

The crimes of persuading others to desert, of concealing, assisting, or relieving an enemy; of being absent from the troop or company a soldier belongs to, absence from duty, drunkenness, and false alarms, are punishable at the discretion of a general or regimental court-martial.

All officers in the command of guards or detachments are enjoined to give assistance to the provost marshal in the execution of his duty; and any officer or soldier impeding him in the same, or offering him any insult, will receive the most exemplary punishment.

Marsy ground, les marais, Fr. As it may be frequently necessary to convey heavy ordnance, &c. over marshy ground, and sometimes indeed to erect batteries upon it, the following method has been recommended for those purposes:

In the first place, a firm and solid road must be made, in order to convey, with safety, the different materials which may be wanted for the construction of the battery, and along which the men may securely drag the various pieces of ordnance. This road must be ten feet high at least.

If the marsh or bog should not be very deep, let a bed or platform, consisting of fascines, and disposed according to the direction of the road, be constructed between two rows of thick assements, that are secured and fixed in the earth with strong stakes. This platform must be two thirds as thick as the bog is deep, and contain 12 feet in breadth. Spread hurdles over the level surface of this platform, and then make another bed or covering with fascines, ten feet long, and disposed according to the breadth of the road, taking care to bind their ends, &c. well together by means of stakes, which must
be driven through the hurdles and the lower bed. Let this second surface be sufficiently covered with earth and straw, to secure the fascines, and to render the road solid and compact. If the road should appear unsafe after these precautions, it must be made wider and deeper.

If the marsh or bog be very deep, you must construct several beds or surfaces of fascines, in the manner already mentioned, taking care to make the top equal to the breadth of the road, and capable of supporting the weight of a wagon or carriage. The ground for the epaulement belonging to the platforms, their recoil backwards, and the path to the magazines, must be rendered firm and solid after the same manner. On each side of this epaulement you must throw up a berm or path, measuring three feet in front, and as much on the sides.

You will collect the earth, &c. in the usual way for the construction of batteries on rocks, and mask your artificers in like manner.

MARTIAL Law, is the law of war, which entirely depends on the arbitrary power of the commander of the army when martial law is declared; and then the law of war is greatly influenced by the situation where war is carried on; by the conduct of the people in whose country the war exists: there are certain principles of humanity and honor, which all nations observe in time of war, which have the force of law: as the law of truces, the laws that relate to the army are also branches of martial law.

MARTIAL, Fr. A small discipline, or cat o' nine tails, fixed to the end of a wooden handle, which schoolmasters use to punish refractory or idle boys. This affords us another path, and perhaps a surer one, than all the sciences already quoted, to find out the real origin of Martinet in a military sense, more especially as it is particularly indicative of the severity that is sometimes practised by what is, ridiculously enough, called a tip-top adjutant.

MARTINGAL, (Martingale, Fr.) A thong of leather, which is fastened to one end of the girths under the belly of a horse, and at the other end to the muzzroll, to keep him from rearing.

MASK, Fr. In field fortification, a mask is generally six feet high. Bags made of wad or wool are too expensive on these occasions; nor are gabions, stuffed with fascines, seven or eight feet high to be preferred; for if the fascines be tied together they will leave spaces between them in the gabions; and if they are not bound together, they will be open at top as to admit shot, &c.

To effect the latter purpose, several masks must be hastily thrown up, whilst the men are employed behind one, by which means the enemy will either mistake the real point, or be induced to pour his fire in several directions, and thus weaken its effect.

A mask is six feet high, and made of wad or wool. It is supposed to have been invented in France. In order to obviate these inconveniences, the following method has been proposed:—place two chandelliers, each seven feet high, and two broad, between the uprights, after which fill up the spaces with fascines nine feet high, upon six inches diameter. One teise and a half of epaulement will require two chandelliers, and 60 fascines, to mask it.

The engineer, or artillery officer places himself behind this mask, and draws his plan.

As you must necessarily have earth, &c. to complete your work, these articles may be brought in hovels, baskets, or gabions; and if the quarter from whence you draw them should be exposed to the enemy’s fire, cover that line, as well as the line of communication, between the trenches, or the parallels, with a mask.

If you cannot procure earth and fascines, make use of sacks stuffed with wool, &c. and let their diameters be three feet, and their length likewise three, and let the outside be frequently wetted to prevent them from catching fire. See pages 538, 829, 890, Vol. ii. of the Aide-de-Camp, d’Armée des Officiers d’Artillerie de France.

To Mask, (Masquer, Fr.) To cover any particular post or situation, for the purpose of attack or defence. In ambuscade, a battery is said to be masked, when its outward appearance is such as not to create any suspicion or mistrust in a reconnoitting or approaching enemy. A town or fortress, a battery, or the head of a bridge, may likewise be said to be masked, when a superior force sits down before them, and keeps the garrison in awe.

This is frequently done, in order to render the advantages of such a place or hold less intellectual, while an army acts in its neighborhood, or marches by.

MASQUER, (Masquer, Fr.) To block
up any road or avenue through which an army might attempt to march.

**Massalgie, fr.** Persons employed in India as porters or messengers. Massalgies, cooles, and palankeen bearers, are allowed a certain batta when they travel. *Massal* is a torch; and *massalge* a torch bearer, a person who carries a flambeau to give light.

**Masses, Fr.** A species of stock-purse, which during the French monarchy was lodged in the hands of the regimental treasurer or paymaster, for every serjeant, corporal, ensign, or all the subordinate officers, that were made, over and above their regular allowance, for each serjeant, and for each of the other ranks, according to the old French establishment; not the effective number of each battalion. Out of these stoppages was made up, and at the end of every month it was paid into the hands of the major or officer entrusted with the interior management of the corps, and was then appropriated to defray the expense of clothing the different regiments, and lodged in the hands of the directors or inspectors-general of clothing.

That part of the masse or stock-purse, which remained in the major's hands, and which was destined for the dress of the recruits, as well as for repair of the regimental clothing, &c., could never be disposed of, or appropriated, without the knowledge and concurrence of the colonel or commandant of regiments, the lieutenant-colonel, and other superior officers of the corps. To this end it was customary for the major to call the commanding officers and oldest captains of the regiments together, in order to lay before them the actual state of the corps, to select some officer who should superintend the repairing of whatever was found necessary, and deliver the lodging-money, &c. After this statement has been examined, the major must deliver in a faithful account of all the regimental debts that have been incurred; he must further explain how the last amount of the masse, or stock-purse, has been laid out, and specify the actual sum in hand, that a proper arrangement may be made, and that the repairs in the clothing, and the expenses attending quarters, &c., may be duly ascertained.

The major, on these occasions, directed to give his advice, with due respect and deference to his superior officers, and to suggest the best and cheapest method of fitting out and embellishing the regiment, carefully adhering to that system of economy which prevents its from running into debt. The statement of the several articles, with their appropriate expenditure, was specifically drawn out, and counter-signed by the colonel-commandant, and two or three of the oldest captains of companies. Their signatures served as vouchers for the major. By these means all internal cavils and disputes were obviated; the interior economy of the corps was well conducted, and a seasonable check was kept upon those officers who had the management of the regiment. Every thing, besides, came in a regular form before the inspector-general, under whose eyes all the accounts were ultimately laid; whether they regarded the recruiting service, or the clothing and distribution of necessaries.

**Masses de la cavalerie et des dragons, Fr.** Every brigadier, horseman, carabinier, hussar, dragoon, trumpet and ryalbal player, and drummer, belonging to the old French cavalry, was subject to a certain stoppage from the allowances that were made, over and above their regular subsistence, for the purpose of forming their masse, or stock-purse. This money remained in the hands of the regimental treasurer, who accounted for its application at the end of every month, and delivered a statement into the hands of the officer who was entrusted with its distribution; the same having been vouched for by the colonel-general of cavalry and dragoons.

In addition to these extants from a French work, it may not be thought superfluous to give the following more specific explanation of what was comprehended under the term of regimental masse, or stock-purse, that was made out of stoppages.

There were three sorts of masses, or regimental stock-purses in the old French service; two of which were sanctioned by authority, or the king's order. The third was confined to the interior management of each corps, but never appeared in any public regulation. On this account it obtained the appellation of masse noire, or dark and unknown.

The first masse directed by government to be attended to in every regiment, was called masse de linge et chaussure, or stock of necessaries, such as linen, shoes, &c. This masse was made up by means of a certain proportion of the recruit's bounty (amounting to 5 livres) which was kept...
in hand, and by the retention of a part of the daily pay of each soldier. The money, thus stopped, was destined to keep up the soldier's regular stock of shoes and breeches, as the king only allowed him one pair of each of these articles every year. He was likewise enabled thereby to provide himself with stockings, shirts, cravats or stocks, handkerchiefs, and gaiters; for every French soldier was obliged to produce at each monthly inspection of necessaries, one good pair of shoes, two shirts, two stocks or cravats, one pair of gaiters, three pair of handkerchiefs, and of black canvas for marching.

At the expiration of three months a regular account was made out of what remained unappropriated of the 15 livres, and of the masse in general, after the soldier had been supplied with the above specified articles. This statement was stuck up in every barrack-room, exhibiting the balance due to each man, who, on his side, was obliged to have a written counterpart, or schedule, of all the different articles, and of the exact sum in hand. When the captain of the company inspected the necessaries, each soldier was directed to produce this schedule, and to repeat its contents by heart. Whenever it so happened, that 15 livres could not be kept in hand out of the soldier's bounty, he was permitted to work, the instant he could, with propriety, be employed upon this service were accordingly paid out of the masse noire, which was further increased by certain contributions that the men, who were permitted to work, voluntarily gave, in addition to the six or seven livres already mentioned.

The regiment by means of this fund (which may in some degree be considered in the same light that the stock-purse of a British regiment is,) made up the deficiency of the king's bounty, which was seldom or ever found enough to answer the purposes of recruiting. The persons employed upon this service were accordingly paid out of the masse noire, which was further increased by certain contributions that the men, who were permitted to work, voluntarily gave, in addition to the six or seven livres already mentioned.

This man was attached to the company, and was called Frater, or Brother. The same practice prevails in most regiments belonging to the British service, with this difference, that there is not any direct authority to enforce the observance of it as a regulation.

In cavalry regiments, as in the infantry, the massa were formed by a stoppage of two or three livres out of the pay of those men that were allowed to work, and by the produce of the dung which was valued at two sols per day. There was likewise a further stoppage of two deniers out of the daily subsistence of each draught horse, by means of which he was regularly furnished with shovels, brushes, and pitchforks for the stables.

The third masse (which, as we have already remarked, although distinguished by the appellation of masse noire, or dark and unknown, was still found indispensably necessary for the interior management of each regiment) grew out of the surplus money that was given for discharges, (it being only required of each regiment to account to government for 100 livres per man) out of deaths and other casualties, and out of the money which had accumulated from men struck off the sick list. The regiment by means of this fund (which may in some degree be considered in the same light that the stock-purse of a British regiment is,) made up the deficiency of the king's bounty, which was seldom or ever found enough to answer the purposes of recruiting. The persons employed upon this service were accordingly paid out of the masse noire, which was further increased by certain contributions that the men, who were permitted to work, voluntarily gave, in addition to the six or seven livres already mentioned.

MASSE d'armes, Fr. a warlike weapon, which was formerly used. It consisted of a long pole with a large iron head.
Baggage-Master and Inspector of...r service.

Barrack-Master-General, an officer with the rank of a major general in the British army, vested with considerable powers. These powers were formerly exercised by the board of ordnance, but they were transferred to the barrack-master-general by the secretary at war on the 30th day of May, 1794. In 1795 the two warrants, whereby all matters relative to the government of barracks had been partially entrusted to the board of ordnance, and a barrack-master-general, were revoked, and the following rules, orders, powers, and directions were established in lieu thereof, in as much as regards the duties of the department entrusted to the barrack-master-general to the British forces.

It is the duty of the barrack-master-general to erect and keep in repair all barracks that are not in fortified places; and all supplies of barrack furniture, utensils, and other stores for the troops, are to be furnished by him. The accommodation for royal artillery in barracks is under the direction of the barrack-master-general, excepting at Woolwich, or wherever there may be a separate barracks for the artillery, or a fixed station for that corps.

The commanding officers in barracks are, in all matters relative to the accommodation, disposition, and supply of the troops stationed therein, to be under the direction of the barrack-master-general; and all applications and requisitions are to be made to him.

Whenever any damage, except from fair wear and tear, has been done to barrack buildings, or any of the furniture or utensils have been injured, destroyed, or embezzled, a just estimate must be formed by the barrack-master; and if his demand be not immediately paid by the commanding officer, it shall be verified by affidavit of the barrack-master, submitted to the commanding officer, and if the answer be not satisfactory, the barrack-master-general is to certify the amount of the expense of making good the said injury to the secretary at war, in order that he may direct the same to be charged against the regiment, or detachment concerned.

In order to prevent the inconveniences and injury which might arise from officers making alterations in the barrack-rooms, &c. the barrack-master-general is directed to have the use, for which each room is intended, lettered on the door, and if any officer shall attempt to make any alteration in any room, or convert it to any purpose, other than is so specified, or remove any of the furniture belonging thereto, the barrack-master (who shall always be permitted to visit the rooms at seasonable hours, whenever he desires to do so) shall represent the same to the commanding officer, and in case immediate attention is not paid thereto, the barrack-master is strictly commanded immediately to report it to the barrack-master-general.

Baggage-Master and Inspector of

And when any room shall not be occupied, the same shall be locked up, and no part of the furniture be removed therefrom.

No officer, or barrack-master, is, upon any account, to make any alteration or repair at any barrack, or cause any expense to be incurred in providing any article relative thereto, without the directions of the barrack-master-general first obtained for that purpose.

On the 25th of March, 24th of June, 23rd of September, and 24th of December, in every year, regular returns are to be transmitted by the barrack-masters to the barrack-master-general, of the state of the barracks, and of the furniture and utensils, both in use and store, specifying the actual condition of each, and the manner in which the apartments of the barracks, under their care have been occupied for the three months preceding; which return shall be countersigned by the commanding officers, who are directed personally and diligently to inspect the same.

The barrack-master-general is to take care, that a proper quantity of good and sufficient firing, candles, and other stores, be provided for each barracks every year, and the same is to be duly delivered out to the troops by the respective barrack-masters, at such times, and in such proportions, as are specified in the general regulations. The deliveries are to be vouched, not only by certificates of the actual amount, but also by accurate returns, stating the number in every troop, company, and detachment, present at each weekly delivery. The said certificates and returns are to be given under the hand of the commanding officer in the barracks, and to be transmitted with the accounts.

And a return thereof is without delay to be transmitted by the several barrack-masters, who from thenceforth are to remain accountable for the same to the barrack-master-general.

Half-yearly accounts of expenditures, with general returns of the receipts and issues, and the necessary vouchers for the same, are to be made up to the 24th of June, and 24th of December, in each year, and to be transmitted, within fourteen days after the said periods, to the barrack-master-general, who is to examine and settle the same without delay.

The issue of forage to the cavalry, is to be made according to a prescribed regulation. The officer commanding in each of the cavalry barracks, where forage shall be issued, is to transmit to the barrack-master-general a weekly return of the number of horses for which it has been delivered; and also the same and rank of each officer, with the number of horses for which he has received rations of forage.

And at such periods as shall be required, by the barrack-master-general, the said commanding officer shall transmit to him, a general statement of the quantity of fo-
rages received and actually issued to the troops, the said certificate to be according to such form as shall be prescribed by the barracks-master-general.

Whenever small beer is to be issued to troops in barracks, it can only be supplied by such persons as shall have been approved by the barracks-master-general; and the delivery is to be vouch'd by a weekly return from the commanding officer, stating the number to whom it has been issued. And at such periods as shall be required by the barracks-master-general, the said commanding officer is to transmit to the general statement of the quantity of small beer actually issued to the troops; the said certificate to be according to such form, as shall be prescribed by the barracks-master-general.

Every instance of neglect or misconduct which may occur in the management of barracks, must be reported to the barrack-master-general by the several officers commanding in barracks; and on the representation being judged sufficiently weighty, an inspector is to be sent down for the specific purpose of seeing every matter of complaint removed.

The barracks-master-general is authorised to take cognizance of all matters relative to accommodation, disposition, and supply, of the troops stationed in barracks, reporting thereupon, whenever it may be requisite, to the secretary at war, for the King's information. And all officers, and barrack-masters, are directed and enjoined to obey such orders and directions as the barracks-master-general shall find necessary to be given thereon.

The barracks-master-general is from time to time to receive imprest from the current service of each year, upon estimates signed by him, and delivered into the office of the secretary at war. And at the end of each year, he shall make up and deliver into the said office, a general account of barracks expenditures for the preceding twelve months. The half-yearly accounts of the several barracks, and the accounts of other persons to whom monies shall have been paid within the period on behalf of the barracks department (for the propriety, justice, and accuracy of which, as also for their strict conformity to the regulations, he shall be held responsible,) together with their acquittances, shall be the vouchers upon which the said general accounts shall be passed, and warrants shall be made out according to the royal sign manual. See pages 94 to 96, General Regulations.

M.A.S. MASTER of the victuals. The person who had the chief care and management of the provisions belonging to an army was formerly so called. See Purchas.

M.A.T. MASTER-general. A person, formerly so called, under whose direction all the scouts and army messengers were placed. The appointment does not exist at present.

M.A.S.U.L.I.T, a boat used in the East Indies, which is called with moss.

MATCH, in artillery, a kind of rope slightly twisted, and prepared to retain fire for the use of the artillery, mines, fireworks, &c. Slow match is made of hemp or tow, spun on the wheel like cord, but very slack; and is composed of three twists, which are afterwards again covered with tow, so that the twists do not appear: lastly, it is boiled in the lees of old wine. This, when once lighted at the end, burns on gradually, without ever going out, till the whole be consumed. It is mounted on a lint stock.

Quick Match, used in artillery, made of three cotton strands drawn into lengths, and put into a kettle just covered with white wine vinegar, and then a quantity of saltpetre and mealed powder is put in it, and boiled till well mixed. Others put only saltpetre into water, and after that take it out hot, and lay it into a trough with some mealed powder, moistened with some spirits of wine, thoroughly wrought into the cotton by rolling it backwards and forwards with the hands; and when this is done, they are taken out separately, drawn through mealed powder, and dried upon a line. See Laboratory.

MATCH.—The slow match used by the English is made by contract; one yard of it will burn about 8 hours. The French slow match is usually made by soaking light twisted white rope for three days in a strong lye. It burns about 3 feet in 6 hours.

Slow match was made at Gibraltar, during the last siege, in the following manner: eight ounces of saltpetre were put into a gallon of water, and just made to boil over a slow fire; strong blue paper was then wetted with the liquor, and hung to dry. When dry, each sheet was rolled up tightly, and the outward edge pasted down, to prevent its opening; half a sheet, thus prepared, will burn 3 hours.

Quick MATCH Composition.

Worsted Match.

Worsted . . . . 10 oz.
Mealed powder . . . . 10 lbs.
Spirits of wine . . . . 5 pints.
Water . . . . 3 do.
Isinglass . . . . 8 pint.

Cotton Match.

Cotton . . . . 1 lb. 12 oz.
Saltpetre . . . . 8 lbs.
Mealed powder . . . . 10 do.
Spirits of wine . . . . 2 quarts.
Water . . . . 3 pints.

The worsted or cotton must be laid evenly in an earthen or other pan, and the different ingredients poured over it, and about half the powder being left a short time to soak, it is afterwards wound smoothly on a reel, and laid to dry, the remaining half of the powder is then sifted over it; and it is ready for use when dry.

The French have lately made their slow match by soaking the rope in a solution of 3-4ths of an ounce of sugar...
MATHEMATICS, originally signified any kind of discipline or learning; but, at present, it denotes that science which treats, or contemplates, whatever is capable of being numbered or measured; and accordingly is subdivided into a theoretic, which has numbers for its object; and a geometric, which treats of magnitude.

MATHEMATICS are commonly distinguished into pure and speculative, which consider quantity abstractedly; and mixed, which treat of magnitude as subsisting in material bodies, and consequently are interwoven everywhere with physical considerations.

Mixed Mathematics are very comprehensive, since to them may be referred astronomy, optics, geography, hydrography, gunnery, mechanics, fortification, and navigation. Pure mathematics have one peculiar advantage, that they occasion no disputes among wrangling partisans, as in other branches of knowledge; and the reason is, because the definitions of the terms are premised, and every one that reads a proposition has the same idea of every part of it. Hence it is easy to put an end to all mathematical controversies, by showing that our adversary has not stuck to his definitions, or has not laid down true premises, or else that he has drawn false conclusions from true principles; and, in case we are able to do either of these, we must acknowledge the truth of what he has proved.

It is true, that in mixed mathematics, where we reason mathematically upon physical subjects, we cannot give such just definitions as the geometers; we must therefore rest content with descriptions; and they will be of the same use as definitions, provided we are consistent with ourselves, and always mean the same thing by those terms we have once explained.

Dr. Barrow gives a most elegant description of the excellence and usefulness of mathematical knowledge, in his inaugural address upon being appointed professor of mathematics at Cambridge.

The mathematics, he observes, effectually exercise, not vainly detest, nor vacantly torment studious minds with obscure subtleties; but plainly demonstrate every thing within their reach, draw certain conclusions, instruct by profitable rules, and unfold pleasant questions. These disciplines likewise enure and corroborate the mind to constant diligence in study; they wholly deliver us from a credulous simplicity, most strongly fortified against the vanity of scepticism, effectually restrain us from a rash presumption, most easily incline us to a due judgment, perfectly subject us to the government of right reason. While the mind is abstracted and elevated from sensible matter, distinctly views pure forms, conceives the beauty of ideas, and investigates the harmony of proportions; the manners themselves are sensibly corrected and improved, the affections composed and rectified, the fancy calmed and settled, and the understanding raised and excited to nobler contemplations.

MATRAS, Pr., a sort of dart which was anciently used, and which was not sufficiently pointed to occasion any thing more than a bruise.

MATRON, a woman, generally the wife of some well behaved and good soldier, who is employed to assist in the regimental hospital. She is under the direction of the surgeon, by whom she is originally appointed to the situation. See Nurse.

MATROSSES, are properly assistants to the gunner, being soldiers in the British regiments of artillery, and next to them they assist in loading, firing, and spurring the great guns. They carry firelocks, and march along with the guns and store-wagons, both as a guard, and to give their assistance on every emergency.

MATTER, in law, denotes something to be proved by witnesses, in contradistinction from matter of record, which may be proved by some process, &c. appearing in any court of record.

MATTER, in a military sense, especially with regard to courts-martial, consists of the specific charges which are brought against a prisoner, and to which the president and members must strictly confine themselves. It has been very properly observed, in a small pamphlet upon martial law, that unacquainted with the serious consequence of a strict attention to the minutiae of form in criminal proceedings, general courts-martial have looked upon the first swearing in of the court, as a sufficient authority to warrant their proceeding on the trial of a variety of offences; whereas, in propriety, the court should be sworn afresh at the commencement of every new prosecution; for though, as judges, (in the manner of martial law, that unacquainted with the possible that men, with propriety, can proceed upon a trial which they are par
warranted by law to decide upon? Were the obligation in the Articles of War decisive as to the trial of all matters, and any other case, was it the court possessed of the authority of extending the meaning of the oath, once swearing would undoubtedly be sufficient; but, as in every respect, the contrary is evident, as the very words of the oath express that "they shall null and voidly try and determine according to their evidence, in the matter before them." How can it be otherwise than an unwarrantable irregularity in them, to proceed upon the trial of offenders, who, in the eye of the law, are not amenable to their authority? For, if the first prisoner to be tried, has a right to challenge an officer, who may be appointed to sit on an investigation of his offence, as a member of a court of enquiry, or who may be liable to any exceptions, why shall not the second and third prisoner be entitled to the same merciful indulgence? See Thoughts on Martial Law, pages 25, 26, 27, 28, 29.

MEASURE. In geometry, any quantity assumed as one, to which the ratio of other homogeneous or similar quantities is expressed.

Measure of an angle, the length of an arch described from the vertex to any place between its legs; hence angles are distinguished by the ratio of the arches between the legs to the peripheries. See Angle.

MEASURE. In geometry, any quantity assumed as one, to which the ratio of other homogeneous or similar quantities is expressed.

Measure of a figure, is a square, whose side is an inch, foot, yard, or other determinate measure. Hence square measures.

Among geometerians it is usually a square rod, called a decimeter, divided into 10 square feet, and those into square digits, and those again into 10 lines, &c.

Measure of a line, any right line taken at pleasure, and considered as unity.

Measure of the mass or quantity of matter, in mechanics, is its weight: it being apparent that all the matter which coheres with a body, gravitates with it; and it being found by experiment, that the gravities of homogeneous bodies are in proportion to their bulks: hence while the mass continues the same, the absolute weight will be the same, whatever figure it puts on; and it varies as the quantity of its surface does.

Measure of a number, in arithmetic, such a number as divides another without leaving a fraction; thus 9 is a measure of 27.

Measure of a solid, is a cube, whose side is an inch, foot, yard, or other determinate length; in geometry, it is a cubic perch, divided into cubic feet, digits, &c. Hence cubic measure, or measures of capacity.

Measure of velocity, in projectiles, and mechanics, the space passed over by a moving body in any given time. The space therefore must be divided into as many equal parts, as the time is conceived to be divided into: the quantity of space answering to such portion of time, is the measure of the velocity.

Measures then are various, according to the different kinds and dimensions of things measured. Hence arise linear and longitudinal measures for lines or lengths; for square areas; and solid or cubic, for bodies and their capacities; all which again are very different in different countries and ages, and even many of them for different commodities. Hence also arise other divisions, of domestic and foreign, ancient and modern, dry and wet (or liquid) measures, &c.

Long Measure. The English standard long measure, or that whereby the quantities of things are ordinarily estimated, is the yard containing three English feet, equal to three Paris feet one inch and 3-18ths of an inch, or 7-9ths of a Paris ell. Its subdivisions are the foot, span, palm, inch, and barley-corn: its multiples are the pace, fathom, pole, furlong, and mile.
TABLE, which shows the length in English lines of the several long measures, and the relation of foreign measures to 100 English feet.

<table>
<thead>
<tr>
<th>Places</th>
<th>Measure.</th>
<th>Length of each measure to 100 feet</th>
<th>Equiv. to 100 lines</th>
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<tr>
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</table>
The following examples will shew in what manner the proportion between the long measures of any two given countries may be ascertained.

Examples.

It is required to reduce 100 metres new measure of France into feet of Hamburg. The French metre measuring 472,77 English lines, and the Hamburg foot 135,30, according to the table prefixed, I state the following equation:

\[ \text{100 metres} = x \text{ feet} \]

Reduce 100 feet of Hamburg into metres of France.

\[ \text{100 feet} = x \text{ metres} \]

The following table, which shews in English square feet the contents of the several land measures, and the relations of foreign measures to 100 acres English measure.
### Land Measure

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<tr>
<th>Places</th>
<th>Measures</th>
<th>Contents of each measure</th>
<th>Equiv. to 100 acres</th>
<th>Equiv. to 100 num.100</th>
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<td>Zurich</td>
<td>ditto for forests</td>
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</tbody>
</table>

The following examples will show in what manner the proportion between the land measures of any two given countries may be ascertained.

**Example.**

It is required to reduce 100 dessaetinas of Russia into fanegadas of Spain. The dessaetina measuring 124 620 square feet of England, and the fanegada 48 215 square feet, according to the table prefixed, I state the following equation:

\[
\text{1 dessaetina} = \frac{100 \text{ dessaetinas}}{124 620 \text{ square ft.}} = \frac{1 \text{ fanegada}}{48 215 \text{ square ft.}}
\]

Result 258 47 fanegadas.

**Example.**

Reduce 100 fanegadas into dessaetinas.

\[
\text{1 fanegada} = \frac{100 \text{ fanegadas}}{48 215 \text{ square ft.}} = \frac{1 \text{ dessaetina}}{124 620 \text{ square ft.}}
\]

Result 38 47 dessaetinas.

### Itinerary Measure

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<tr>
<th>Places</th>
<th>Measures</th>
<th>Length of each measure</th>
<th>Equiv. to 1 degree</th>
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</thead>
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The following example will shew in what manner the proportion between the itinerary measures of any two given countries may be ascertained.

Reduce 1 myriametre new French measure into miles of England.

The length of the myriametre being 32777 English feet, and that of the mile 5280, I state the following equation:

\[ 1 \text{ myriametre} = x \]

\[ 1 \text{ myriametre} = 32777 \text{ feet} \]

\[ 5280 \text{ feet} = 1 \text{ mile} \]

Result 6.21 miles.

The following Table, which shows the quantity of English cubic inches contained by each of the corn measures, and the relation of foreign measures to 10 quarters Winchester measure.

### ITINERARY MEASURES

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<th>Places</th>
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<th>Equiv. to 1 degree in num.100</th>
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### TABLE

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* The litre, or the unit of French measures of capacity, is therefore equivalent to 61 English cubic inches.
### Corn Measure.

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The following examples will shew in what manner the proportion between the measures of any two given countries may be ascertained.

**Examples.**

It is required to reduce 100 alquier of Lisbon into fanegas of Cadiz.

The alquier containing 824 cubic inches, and the fanega 3311 cubic inches, according to the table prefixed, I state the following equation:

\[100 \text{ alquier} = \frac{824}{3311} \text{ cubic inches} \]

Result 24.89 fanegas.

Reduce 100 fanegas of Cadiz into alquier of Lisbon.

\[100 \text{ fanegas} = \frac{3311}{824} \text{ cubic inches} \]

Result 401.82 alquiers.

**Table,** which shews the quantity of English cubic inches contained by each of the measures used in the sale of liquids, and the relation of foreign measures to 100 English gallon wine measure.

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The following examples will shew in what manner the proportion between the liquid measures of any two given countries may be ascertained.

**Examples.**

Let it be required to reduce 100 litres new French measure into Spanish quartillos wine measure.

The French litre measuring internally 61 English cubic inches, and the Spanish quartillo 29 3-5, according to the table prefixed, I state the following equation:

\[
100 \text{ litres} = 1 \text{ litre} = 61 \text{ cubic inches}
\]

\[
29 \text{ 3-5 cubic inches} = 1 \text{ quartillo}
\]

Result 206,68 quartillos.

Reduce 100 quartillos wine measure of Spain into litres new measure of France.

\[
100 \text{ quartillos} = 29 \text{ 3-5 cubic inches}
\]

Result 48.32 litres.
Table, which shows the length in English lines of each of the measures used in the sale of cloths, linens, and silk stuffs, and the relation of foreign measures to 100 yards and 100 ells English measure.

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<td>158, 150</td>
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</table>
The following examples will shew in what manner the proportion between the measures of any two given countries may be ascertained.

Examples.

Let it be required to reduce 100 archines of Russia into varas of Spain.

The archine measures 336 English lines, and the vara 395.25, according to the table prefixed, I state the following equation:

\[
\begin{align*}
100 \text{ archines} &= x \\
1 \text{ archine} &= 336 \text{ lines} \\
1 \text{ vara} &= 395.25 \text{ lines} \\
\end{align*}
\]

Result 85.01 vara.

Reduce 100 varas into archines.

\[
\begin{align*}
100 \text{ varas} &= x \\
1 \text{ vara} &= 395.25 \text{ lines} \\
1 \text{ archine} &= 336 \text{ lines} \\
\end{align*}
\]

Result 117.64 archines.

---

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<th>inch</th>
<th>palm</th>
<th>span</th>
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<td>13</td>
</tr>
<tr>
<td>6</td>
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<td>24</td>
<td>30</td>
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<tr>
<td>24</td>
<td>30</td>
<td>36</td>
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<tr>
<th>English Long Measure,</th>
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<td>Eng. miles, paces, feet, pole</td>
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<td>400</td>
<td>1.824</td>
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<tr>
<td>100</td>
<td>0.451</td>
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</table>

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<th>Eng. miles, paces, feet, pole</th>
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<th>Eng. paces, ft. dec.</th>
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<tr>
<td>100</td>
<td>0.451</td>
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</table>

<table>
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<th>Roman Long Measure, deduced to English.</th>
<th>Eng. paces, ft. dec.</th>
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<tr>
<td>33</td>
<td>172</td>
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</table>

<table>
<thead>
<tr>
<th>Digitus transversus,</th>
<th>Eng. paces, ft. dec.</th>
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</thead>
<tbody>
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<td>15 uncia</td>
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<td>4</td>
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<tr>
<td>16</td>
<td>0.58</td>
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<td>0.78</td>
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<td>40</td>
<td>1.74</td>
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<td>2.39</td>
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<td>300</td>
<td>14.34</td>
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<tr>
<td>1200</td>
<td>57.36</td>
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</table>
English square or superficial Measures, are raised from the yard of 36 inches multiplied into itself; and this producing 1296 square inches in the square yard, the divisions of this are square feet and inches, and the multipliers, poles, roods, and acres.

<table>
<thead>
<tr>
<th>Inches</th>
<th>Feet</th>
<th>Yards</th>
<th>Paces</th>
<th>Poles</th>
<th>Square Rods</th>
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<td>9</td>
<td>25</td>
<td>32</td>
<td>435.6</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>40</td>
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</table>

Long Measure.

- 12 Inches make 1 Foot.
- 3 Feet = 1 Yard.
- 54 Yards = 1 Pole, or perch.
- 10 Poles = 1 Furlong.
- 8 Furlongs = 1 Mile.
- 4 Inches = 1 Hand.
- 6 Feet = 1 Fathom, or toise.
- 3 Miles = 1 Leaque.
- 60 Nautical miles, or geographical miles, or 693 statute miles, = 1 Degree.

Square Measure.

- 444 Square inches make 1 Square foot.
- 2 Square feet = 1 Square yard.
- 302 Square yards = 1 Square pole.
- 4 Square poles = 1 Square rood.
- 4 Square roods = 1 Square acre.

Solid, or Cubic Measure.

- 378 Cubic in. make 1 Cubic foot.
- 27 Cubic feet = 1 Cubic yard.
- 27 Cubic in. = 1 Gal. wine measure.
- 1 Gal. beer measure.
- 108 3-5 do. = 1 Gal. dry measure.

Dry Measure.

- 3 Pints = 1 Gallon.
- 2 Gallons = 1 Peck.
- 1 Peck = 1 Bushel.
- 4 Bushels = 1 Corn.
- 2 Coombs = 1 Quarter.
- 5 Quarters = 1 Wey.
- 2 Wyes = 1 Last.

Avoirdupois Weight.

- 16 Drams = 1 Ounce.
- 16 Ounces = 1 Pound.
- 23 Pounds = 1 Hundred.
- 4 Quarters = 1 Hundred.
- 14 Pounds = 1 Stone.

French square Measures, are regulated by 12 square lines in the inch square, 12 inches in the foot, 22 feet in the perch, and 100 perches in the arpent or acre.

French liquid Measures. At Paris, and in a great part of the kingdom, the smallest measure is the possoy, which contains six cubic inches; 2 possoys make the demi-septier; 2 demi-septiers the chopine; 2 chopines a pint; 2 pints a quart or pot; 4 quarts the gallon, or septier of estimation; 56 septiers the muid; which is subdivided into 2 demiseptiers, 4 quarter muids, and 8 half quarter muids. The queue in Orleans, Ecouis, &c. contains a Paris muid and a half, The tun used at Bayonne and Bourdeaux, consists of 4 barriques, and equal to 3 Paris muids, at Orleans or to 2: so that the first tun contains 894 pints, and the second, 576. The demi-queue in Champagne, 60 quarts; the pipe in Anjou and Poictou, 2 bussards, equal to 3 demi-queues of Orleans, &c. or a muid and a half of Paris. The millerolle used in Provence, contains 66 Paris pints; and the poincon at Nantes, in Touraine, and the Besse, equal to half the Orleans tun. The poincon at Paris is the same with the demi-queue.

French Weights and Measures.

The toise is commonly used in France for military purposes, and is divided into 6 feet: each foot 12 inches; each inch 12 lines; each line 12 points. The pace is usually reckoned at 2 1-2 feet.

Poids de Merc, au de Paris.

- 24 Grains = 1 Denier.
- 3 Deniers = 1 Gros.
- 8 Ounces = 1 Mace.
- 2 Mares = 1 Pound.

The French have lately formed an entire new system of weights and measures; the following short account of them, and their proportion to the old weights and measures of France, and those of English standard, is extracted from Nicoleau's Natural Philosophy.
Proportional Measures, or Units
By the new metrical system of the French, the geometrical circle used in astronomical, geographical, and topographical calculations, is divided instead of 360, into 400 equal parts, which are called grades; each grade is divided into 100 equal parts which are called minutes of grade; and each minute into 100 seconds, of grade. The proportion of the new to the old degree is 0.9; and the next proportion or minute is 54.1 of the old division; and the new second is 32.0.4 of the ancient.

Reduction of the old French Weights and Measures, and those of the principal places in Europe.

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<th>Feet in English</th>
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<tr>
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<tr>
<td>Bologna</td>
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<td>Naples</td>
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<tr>
<td>Florence</td>
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<td>101</td>
</tr>
<tr>
<td>Genoa</td>
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<tr>
<td>Mantua</td>
<td>1069</td>
<td>105</td>
</tr>
<tr>
<td>Turin</td>
<td>1062</td>
<td>105</td>
</tr>
<tr>
<td>Danzig</td>
<td>144</td>
<td>143</td>
</tr>
</tbody>
</table>

**Cubic Measures.**

The sealed gallon at Guildhall, London, which is the English standard for wine, spirits, &c, is supposed to contain 231 cubic inches; yet by actual experiment made in 1688, before the lord mayor and commissioners of excise, it only contains 224 cubic inches. It was however agreed to continue the common supposed contents of 231; hence, as 1:2: :231:: 14:1 :282 1-1. the cubic inches in an ale gallon; but in effect, the ale quart contains 70 1-1. cubic inches; on which principles the ale and beer gallon will be 282 cubic inches. The bushel is different from both the ale and wine measure, being nearly a mean between both.

According to a British act of parliament, passed in 1697, every round bushel, with a plain and even bottom, being 18 1-1. inches throughout, and eight inches deep, is to be accounted a legal Winchester bushel, according to the standard in the exchequer; consequently a corn gallon will contain 288.8 inches, as in the following table.

<table>
<thead>
<tr>
<th>Inches</th>
<th>Gallons</th>
<th>Pecks</th>
<th>Bushels</th>
<th>Quarters</th>
</tr>
</thead>
<tbody>
<tr>
<td>2688</td>
<td>576</td>
<td>2</td>
<td>48</td>
<td>8</td>
</tr>
<tr>
<td>117206</td>
<td>54</td>
<td>2</td>
<td>16</td>
<td>3</td>
</tr>
</tbody>
</table>
WINCHESTER MEASURE.

2 Pints make 1 Quart.
4 Quarts 1 Gallon.
8 Quarts, or 18 Gallons 1 Kilderkin.
36 Gallons 1 Barrel.
1 Barrel and half, or 54 Gallons 1 Hogshead.
2 Hogsheads, or 108 Gallons 1 Butt.
2 Butts, or 216 Gallons 1 Tun.

Table Cloth Measure.

2 Inches and 3/4 make 1 Nail.
4 Nails 1 Yard.
2 of a Yard 1 Ell Flemish.
5 Quarters, or 1 Yard 1 English Ell.
6 Quarters, or 1 1 French Ell.

MEASURE of wood for firing, is the cord, being four feet high, as many broad, and the length of the wood itself, by law established, it is divided into two half cords.

MEASURES for boats, is the hand, which by statute contains 4 inches.

Powder Measures, made of copper, holding from an ounce to 12 pounds, are very convenient in a siege, when guns or mortars are to be loaded with loose power, especially in ricochet-firing, &c.

The French recommend measures that are made of block tin, such as are used for measuring out salt, viz. 1 ounce, 2, 3, 4, 5, which make the half pound; and lastly, of 16, which make the pound. These quantities answer every sort of ordnance.

MEASURING. 2 in military man.

MENSURATION, #metrical, the examining any certain quantity, and expressing the proportion of other similar quantities to the same; or the determining, by a certain known measure, the precise extent, quantity, or capacity of any thing.

MEASURING, in general, constitutes the practical part of geometry; and from the various subjects which it embraces, it acquires various names, and constitutes various arts, viz.

LONGITUDE, ALTITUDE, LEVELLING, GEODESY, SURVEYING, STEREOMETRY, SURFACES, and SOLIDS, &c. which are.

MEASURING. See CHAIN.

MECHANICS, a mixed mathematical science, which considers motion and moving powers, their nature and laws, with the effects thereof, in machines, &c. The word is derived from the Greek. That part which considers motion arising from gravity, is sometimes called statics, in contradistinction from that part which considers the mechanical powers and their application, properly called mechanics:

It is, in fine, the geometry of motion.

The whole momentum or quantity of force of a moving body, is the result of the quantity of matter, multiplied by the velocity with which it is moved; and when the product arising from the multiplication of the particular quantities of matter in any two bodies, by their respective velocities are equal, their momentum will be so too. Upon this easy principle depends the whole of mechanics; and it holds universally true, that when two bodies are suspended on any machine, so as to act contrary to each other, if the machine be put in motion, and the perpendicular ascent of one body multiplied into its weight, be equal to the perpendicular descent of the other, multiplied into its weight, those bodies, how unequal soever in their weights, will balance each other in all situations: for, as the whole ascent of the one is performed in the same time as the whole descent of the other, their respective velocities must be as the spaces they move through; and the excess of weight in one is compensated by the excess of velocity in the other. Upon this principle it is easy to compute the power of any engine, either simple or compound; for it is only finding how much swifter the power moves than the weight does (i.e. how much further in the same time) and just so much is the power increased by the help of the engine.

The simple machines usually called mechanic powers, are six in number, viz. the lever, the wheel and axle, the pulley, the inclined plane, the wedge, and the screw.

There are four kinds of levers: 1st, where the prop is placed between the weight and the power. 2d, where th...
of the weight from the prop exceeds the
distance of the power from the prop. As
this kind of lever is disadvantageous to the
moving power, it is seldom used.

Wheel and axle. Here the velocity of
the power is to the velocity of the weight,
at the circumference of the wheel is to the
circumference of the axle.

As the circumference of the wheel is to the
weight, as the circumference of the axle.

A single pulley, that only
turns on its axis, and does not move out of
its place, serves only to change the direc-
tion of the power, but gives no mechanical
advantage. The advantage gained in this
machine, is always as twice the number of
pulleys; without taking any notice of the
fixed pulley necessary to
compose the system of pulli-
s.

Inclined plane. The advantage gained
by the lever, is as the distance of the
power from the prop, to the distance of
the weight from the prop. In the 3d
kind, that there may be a balance between
the power and the weight, the intensity of
the power must exceed the intensity of
the weight, just as much as the distance
advantage. The advantage gained in this
machine, is always as twice the number of
pulleys; without taking any
notice of the fixed pulley necessary to
compose the system of pulli-
s.

Hedge. This may be considered as two
equally inclined planes, joined together at
their bases. When the wood does not
cleave at any distance before the wedge,
there will be an equilibrium between the
power impelling the wedge, and the resis-
tance of the wood acting against its two
sides; when the power is to the resistance,
as half the thickness of the wedge at the
back, is to the length of either of its sides;
because the resistance acts perpen-
dicularly to the sides of the wedge: but
when the resistance on both sides acts
parallel to the back, the power that bal-
cances the resistance on both sides will be,
as the length of the whole back of the
wedge is to double its perpendicular
height. When the wood cleaves at any
distance before the wedge, (as it generally
does) the power impelling the wedge will
be to the resistance of the wood, as half
the length of the back is to the length of
either of the sides of the cleft, estimated
from the top, or acting part of the wedg-
e.

Here the advantage gained is as
much as the circumference of a circle de-
scribed by the handle of the winch, exceeds
the interval or distance between the spirals
described.

There are few compound engines, but
what, on account of the friction of parts
against one another, will require a third
part more power to work them when
loaded, than what is required to consti-
tute a balance between the power and the
weight.

MECHANICAL, something relating
to mechanics.

Mechanical philosophy, that which
explains the phenomena of nature, and
the operations of corporeal things, on the
principles of mechanics; namely, the
motion, gravity, figure, arrangement, &c.
of the parts which compose natural bodies.

Mechanical power. When two
heavy bodies or weights are made by any
contrivance to act against each other, so as
mutually to prevent each other, from
being put into motion by gravity, they are
said to be in equilibrio. The same expres-
sion is used with respect to other forces,
which mutually prevent each other from
producing motion.

Any force may be compared with gravi-
ty, considered as a standard. Weight is
the action of gravity on a given mass.
Whatever therefore is proved concerning
the weights of bodies will be true in like
circumstances of other forces.

Weights are supposed to act in lines of
direction parallel to each other. In fact,
these lines are directed to the centre of
the earth, but the angle formed between the
two of them within the space occupied by
a mechanical engine is so small, that the
largest and most accurate astronomical
instruments are scarcely capable of ex-
biliting it.

The simplest of those instruments, by
means of which weights or forces are
made to act in opposition to each other,
are usually termed mechanical powers.

Their names are, the lever, the axis or
axle, and screw, the pulley or tackle, the in-
clined plane, the wedge, and the screw

Of the Lever.

The lever is defined to be a moveable
and inflexible line, acted upon by three
forces, the middle one of which is ron-
dary in direction to the other two.

One of these forces is usually produced
by the reaction of a fixed body, called the
fulcrum.

If two contrary forces be applied to a
lever at unequal distances from the ful-
crum, they will equiponderate when the
forces are to each other in the reciprocal
proportion of their distances. For, by the
resolution of force it appears, that if
two contrary forces be applied to a straight
lever, at distances from the fulcrum in the
reciprocal proportion of their quantities,
and in directions always parallel to each
other, the lever will remain at rest in any
position.

Since of the three forces which act on
the lever, the two which are applied at
the extremities, are always in a contra-
direction to that which is applied in the
space between them: this last force will
sustain the effects of the other two; or, in
other words, if the fulcrum be placed
between the weights, it will be acted upon by their difference.

On the principle of the lever are made scales for weighing different quantities of various kinds of things; the steelyard, which answers the same purpose by a single weight, removed to different distances from the fulcrum on a graduated arm, according as the body to be weighed is more or less in quantity; and the bent lever balance, which, by the revolution of a fixed weight, increasing in power as it ascends in the arc of a circle, indicates the weight of the counterpoise.

On this principle also, depend the motions of animals; the overcoming or lifting great weights by means of non-levers, called crows; the action of nut-crackers, pincers, and many other instruments of the same nature.

Of the Axis or Axle, and Wheel, and of the Pulley or Tackle.

The axis and wheel may be considered as a lever, one of the forces being applied at the circumference of the axis, and the other at the circumference of the wheel, the central line of the axis being as it were the fulcrum.

For if the semidiameter of the axis, be to the semidiameter of the wheel, reciprocally as the power of A is to the power B, the first of which is applied in the direction of a tangent of the axis, and the other in the direction of the tangent of the wheel, they will be in equilibrium.

To this power may be referred the capstan or crane, by which weights are raised; the winch and barrel, for drawing water, and numberless other machines on the same principle.

The pulley is likewise explained on the same principle of the lever. Suppose the line A. C. to be a lever, whose arms A. B. and B. C. are equidistant from the fulcrum B. Consequently the two equal powers E. and F. applied in the directions of the tangents to the circle in which the extremities are moveable, will be in equilibrium, and the fulcrum B. will sustain both forces.

But, suppose the fulcrum is at C. then a given force at E. will sustain in equilibrium a double force at F. for in that proportion reciprocally are their distances from the fulcrum. Whence it appears, that considering E. as a force, and F. as a weight to be raised, no increase of power is gained, when the pulley is fixed, but that a double increase of power is gained, when the pulley moves with the weight.

A combination of pulleys is called a tackle, and a box containing one or more pulleys, is called a block.

This is a tackle composed of four pulleys, two of which are in the fixed block A. and the other two in the block B. that moves with the weight F. Now, because the rope is equally stretched throughout, each lower pulley will be acted upon by an equal part of the weight; and because in each pulley that moves with the weight a double increase of power is gained; the force by which F. may be sustained will be equal to half the weight divided by the number of lower pulleys, that is, as twice the number of lower pulleys is to one, so is the weight suspending force.

But if the extremity of the rope C. be affixed to the lower block, it will sustain half as much as a pulley; consequently the analogy will then be, as twice the number of lower pulleys, more is to 1, so is the weight suspended to the suspending force.

The pulley or tackle is of such general utility, that it would seem unnecessary to point out any particular instance.

Of the Inclined Plane, and of the Wedge.

The inclined plane has in its effects a near analogy to the lever; and the forces by which the same weight tends downwards in the directions of various planes, will be as the sines of their inclinations.

The wedge is composed of two inclined planes joined together at their common base, in the direction of which the power is impressed.

This instrument is generally used in splitting wood, and was formerly applied in engines for stamping watch plates. The force impressed is commonly a blow, which is found to be much more effectual than a weight or pressure. This may be accounted for on the principles which obtain when resisting bodies are penetrated, as if the mass and velocity vary, the depth to which the impinging body penetrates will be in the compound ratio of the masses and the squares of the velocities.

All cutting instruments may be referred to the wedge. A chisel, or an axe, is a simple wedge; a saw is a number of chisels fixed in a line; a knife may be considered as a simple wedge employed in splitting; but if attention be paid to the edge, it is found to be a fine saw, as is evident from the much greater effect all knives produce by a drawing stroke, than would have followed from a direct action of the edge.

Of the Screw, and of Mechanical Engines, in general.

The screw is composed of two parts, one of which is called the screw, and consists of a spiral protuberance, called the thread, which is wound round a cylinder; and the other called the nut, is perforated to the dimensions of the cylinder, and in the internal cavity is cut a spiral groove adapted to receive the thread.

It would be difficult to enumerate the very many uses to which the screw is applied. It is extremely serviceable in compressing bodies together, as paper, linen, &c. It is the principal organ in all stamping instruments for striking coins, or making impressions on paper, linen, or cards, and is of vast utility to the philosopher, by affording an easy method of measuring or subdividing small spaces.
A very ordinary screw will divide an inch into 5,000 parts; but the fine hardened steel screws, that are applied to astronomical instruments, will go much farther.

It is easy to conceive, that when forces applied to mechanical instruments are in equilibrium, if the least addition be made to one of them, it will preponderate and overcome the effort. But the want of a perfect polish or smoothness in the parts of all instruments, and the rigidity of all ropes, which increases with the tension, are great impediments to motion, and in compounded engines are found to diminish about one fourth of the effect of the power.

The properties of all the mechanical powers depending on the laws of motion, and the action or tendency to produce motion of each of the two forces, being applied in directions contrary to each other, the following general rule for finding the proportion of the forces in equilibrium on any machine will require no proof.

If two weights applied to the extremities of any mechanical engine, be to each other in the reciprocal proportion of the velocities resolved into a perpendicular direction, (rejecting the other part) which would be acquired by each when put in motion for the same indefinitely small time, they will be in equilibrium.

When two weights may be observed, that in all contrivances by which power is gained, a proportional loss is suffered in respect of time. If one man by means of a tackle, can raise as much weight, as ten men could by their unassisted strength, he will be ten times as long about it.

It is convenience alone, and not any actual increase of force, which we obtain from mechanics. As may be illustrated by the following example:

Suppose a man at the top of a house draws up ten weights, one at a time, by a single rope, in ten minutes; let him then have a tackle of five lower pulleys, and he will draw up the whole ten at once with the same ease as he before raised up one; but in ten times the time, that is, in ten minutes. Thus we see the same work is performed in the same time, whether the tackle be used or not; but the convenience is, that if the whole ten weights be joined into one, they may be raised with the tackle, though it would be impossible to move them by the unassisted strength of one man; or suppose, instead of ten weights, a man draws ten buckets of water from the hold of a ship in ten minutes, and that the ship being leaky, admits an equal quantity in the same time. It is proposed that by means of a tackle, he shall raise a bucket ten times as capacious. With this assistance he performs it, but in as long a time as he required to draw the ten, and therefore it is as far from gaining on the water in this latter case as in the former.

Since then no real gain of force is acquired from mechanical contrivances, there is the greatest reason to conclude, that a perpetual motion is not to be obtained. For in all instruments the friction of their parts, and other resistances, destroy a part of the moving force, and at last put an end to the motion.

**Mechanical, in mathematics, denotes a construction or some problem, by the assistance of instruments, as the duplication of the cube, and quadrature of the circle, in contradistinction to that which is done in an accurate and geometrical manner.**

**Mechane, Fr. See mechan.**

**Medical, Fr. Physician.**

**Mediator.** Any state or power which interferes to adjust a quarrel between any two or more powers, is called a mediator.

**Medicine-Chest, is composed of all sorts of medicines necessary for a campaign, together with such chirurgical instruments as are useful, fitted up in chests, and portable. The army and navy are supplied with these at the expense of government.**

Specific regulations have been issued by the war and navy offices, respecting the quantity and quality of the different medicines.

**Medium Guard, a preparatory guard of the broad sword or sabre, which consists in presenting the sword in a perpendicular line with the centre of the opposite object, having the point upwards, the ward iron, and the cutting edge next the object.**

**Meer Bukshy, Ind. Chief pay-master.**

**Meer Tozuk, Ind. A marshal whose business is to preserve order in a procession or line of march, and to report absentees.**

**Megheteriarque, Fr. The commanding officer of a body of men, who formerly did duty at Constantinople, and were called Hierarchies, being composed of soldiers that were enlisted in the allied nations.**

**Melee, Fr. A military term, which is used among the French to express the hurry and confusion of a battle; thus, Un General habile conserve sa tranquillite au milieu du combat, et dans l'horreur de la mêlée—An able general preserves his presence of mind in the thick of the battle, and remains calm during the whole of the conflict. Milie corresponds with the English expression thick of the fight.**

**Memoirs, in military literature, a species of history, written by persons who had some share in the transactions they relate, answering, in some measure, to what the Romans call Commentaries, i. e. commentates. Hence Cesar's Commentaries, or the Memoirs of his Campaigns. Memoria is the title given by military officers to those plans which they offer to their government or commanders on subjects relating to war or military economy; MEMORIA, an address to the government on any matter of public service.**
BATTLE-ION-MEN. All the soldiers belonging to the different companies of an infantry regiment are so called, except those of the two flank companies.

Comp. Color Men. Soldiers under the immediate command and direction of the quarter-master of a regiment. Their business is to assist in marking out the lines of an encampment, &c. to carry the camp colors to the field on days of exercise, and fix them occasionally for the purpose of enabling the troops to take up correct points in marching, &c. So that in this respect they frequently, indeed almost always, act as guides, or what the French call jalonneurs. They are likewise employed in the trenches, and in all fatigue duties.

Drag Rope Men. In the old artillery exercise, the men attached to light or heavy artillery, when the drag rope being exploded for the purpose of exercise, the men attached to light or heavy artillery, always, act as guides, or what the French call jalonneurs. They are likewise employed in the trenches, and in all fatigue duties.

Men Suration. In the old artillery exercise, the men attached to light or heavy pieces of ordnance, for the purpose of advancing or retreating in action, were so called; the drag rope being exploded for the brieve, the term is preserved merely for explanation. The French art called la mesure is of this description.

Menace, an hostile threat. Any officer or soldier using menacing words or gestures in presence of a court-martial, or to a superior officer, is punishable for the same. — See the Articles of War.

Men Suration, in general, denotes the act or art of measuring lines, superficies, and solids.

Men Suration, in military mathematics, is the art or science which treats of the measure of extension, or the magnitude of figures, and it is next to arithmetic, a subject of the greatest usefulness and importance, being applied to all the arts and sciences of human life, and in every branch of mathematics, a subject by which sciences are established, and commerce is conducted; by whose aid we manage our business, and inform ourselves of the wonderful operations in nature; by which we measure the heavens and the earth, estimate the capacities of all vessels and bulks of all bodies, gauge our liquors, build edifices, measure our lands and the space they cover, and sell an infinite variety of things necessary in life, and are supplied with the means of making the calculations which are necessary for the construction of almost all machines.

It is evident that the close connection of this subject with the affairs of men would very early evince its importance to them; and accordingly the greatest among them have paid the utmost attention to it; and the chief and most essential discoveries in geometry in all ages, have been made in consequence of their efforts in this subject. Societies thought that the prime use of geometry was to measure the ground, and indeed this business gave name to the subject; and most of the ancients seem to have had no other and besides measurement in view in all their labored geometrical disquisitions. Euclid's elements are almost entirely devoted to it; and although there be contained in them many properties of geometrical figures, which may be applied to other purposes, and indeed of which the moderns have made the most material use in various disquisitions of exceedingly different kinds; notwithstanding this, Euclid himself seems to have adapted them entirely to this purpose; for, if it be considered that his elements contain a continued chain of reasoning, and of truths, of which the former are successively applied to the discovery of the latter, one proposition depending on another, and the succeeding propositions still approximating towards some particular object near the end of each book; and when at the last we find that object to be the quality, proportion, or relation between the magnitudes of figures both plane and solid; it is scarcely possible to avoid allowing this to have been Euclid's grand object. And accordingly he determined the chief properties in the measurement of rectilinear and solid figures; and squared all such planes, and cubed all such solids. The nearly curve figures which he attempted besides, are the circle and sphere; and when he could not accurately determine their measures, he gave an excellent method of approximating to them, by shewing how in a circle to inscribe a regular polygon which should not touch another circle, concentric with the former, although their circumferences should be ever so near together; and, in like manner, between any two concentric spheres to describe a polyhedron which should not any where touch the inner one; and approximations to their measures are all that have hitherto been given. But although he could not square the circle, nor cube the sphere, he determined the proportion of one circle to another, and of one sphere to another, as well as the proportions of all rectilinear similar figures to one another. Archimedes took up mensuration where Euclid left it, and carried it a great length. He was the first who squared a curvilinear space, under Hypocrates must be excepted on account of his lunes. In his times the conic sections were admitted in geometry, and he applied himself closely to the measuring of them as well as other figures. Accordingly he determined the relations of spheres, spheroids, and cylinders, to cylinders and cones; and the relations of parabolas to rectilinear planes whose quadratures had long before been determined by Euclid. He hath left us also his attempts upon the circle: he proved that a circle is equal to a right angled triangle, whose base is equal to the circumference, and its altitude equal to the radius; and consequently that its area is found by drawing the radius into half the circumference; and so reduced the quadrature of the circle to the determination of the ratio of the diameter to the circumference; but which however hath not yet been done. Being disappointed of
the exact quadrature of the circle, for
the rectification of its circumference, which all his methods would not
effect, he proceeded to assign a useful
approximation to it; this he effected by
the numerical calculation of the perim-
ters of the inscribed and circumscribed
polygons; from which calculation it ap-
ppeared that the perimeter of the circumscribed
regular polygon of 572 sides is to the
diameter in a less ratio than that of
3 17:3 10:16:71 to 1; and consequently much more than the
circumference of the circle is to the diam-
ter in a less ratio than that of 3 17:3 10:71 to 1,
but greater than that of 3 11:7:1 to 1: the
first ratio of 3 17 to 1, reduced to whole
numbers, gives that of 22 to 7; for 3 17 is:
11: 7: 22: 7, which therefore will be near
ly the ratio of the circumference to the
diameter. From this ratio of the circum-
fERENCE to the diameter he computed the
approximate area of the circle, and found
it to be to the square of the diameter as
11 to 14. He likewise determined the rel-
ation between the circle and ellipse, with
that of their similar parts. The hyper-
boi of the ellipse probability of its containi
is, but it is not to be supposed, that he met
with any success, since approximations to
its area can be given by all the
methods that have since been invented.

Besides these figures, he hath left us a
treatise on the spiral described by a point
moving along a right line, which at
the same time moves with an uniform
angular motion; and determined the pro-
portion of its area to that of its circumscribed
circle, as also the proportion of its
sectors.

Throughout the whole works of this
great man, which are chiefly on measure-
tation, he every where discovers the deepest
thought and best invention; and seems to
have been (with Euclid) exceedingly care-
ful of admitting into his demonstrations
nothing but principles perfectly geometri-
cal and unquestionable: and although
his most general method of demonstrating
the relations of curved figures to straigh-
tines, be by inscribing polygons in them,
yet to determine those relations, he does
not increase the number and diminish the
magnitude of the sides of the polygon ad
infinitum; but from this plain fundamental
principle, allowed in Euclid's elements,
viz. that any quantity may be so often
multiplied, or added to itself, as that the
result shall exceed any proposed finite
quantity of the same kind, he proves that
to deny his figures to have the proposed
relations, would involve an absurdity.

He demonstrated also many properties,
perticularly in the parabola, by means of
certain numerical progressions, whose
terms were similar to the inscribed figures;
but without considering such series to be
continued ad infinitum, and then summing
up the terms of such infinite series.

He had another very curious and singu-
lar contrivance for determining the mea-
sures of figures, in which he proceeds, as
it were, mechanically by weighing them.

Several other eminent men among the
ancients wrote upon this subject, both
before and after Euclid and Archimedes;
but their attempts were usually upon
particular figures of it, and accorded to
methods not essentially different from
these. Among these are to be reckoned
Thales, Anaxagoras, Pythagoras, Apolloni-
as, Plato, and Pythagoras; most
of whom wrote of the quadrature of the
circle, and those after Archimedes, by his
method, usually extended the approxima-
tion to a greater degree of accuracy.

Many of the moderns have also pro-
cuted the same problem of the quadrature
of the circle, after the same methods, to
greater lengths; such as Vieta, and Me-
tius, whose proportion between the di-
ameter and circumference is of 3 13:7
to 335, which is within about 1 of
the true ratio; but above all, Ludolph
van Ceulen, who with an amazing degree
of industry and patience, by the same
methods extended the ratio to 20 places
of indivisibles, a method which was very
continued and compared with the
geometrical demonstrations made by Cava-
tarius: the sides of their inscribed and
circumscribed figures they always sup-
pended to a finite and assignable number
and length; he introduced the doctrine
of indivisibles, a method which was very
general and extensive, and which
with great ease and expedition served to measure
and compare geometrical figures. Very
little new matter however was added to
gou by this method, its facility being
its chief advantage. But there was great
danger in using it, and it soon led the way
to infinitely small elements, and infinite
series of endless orders; methods which
were very useful in solving difficult prob-
lems, and in investigating or demonstrating
theories that are general and extensive;
but sometimes led their incautious fol-
lowerers into errors and mistakes, which
occasionally disputes and anomalies among
them. There were now, however, many
excellent things performed in this subject;
not only many new things were effected,
but new curves were measured; and for many things
which could not be exactly squared or
cubed, general and infinite approximating
series were assigned, of which the laws of
their continuation were manifest, and of
some of which the terms were independent
on each other. Mr. Wallis, Mr. Hu-
gens, and Mr. James Gregory, performed
wonders. Huygens in particular must be
admircd for his solid, accurate, and very
masterly works.

During the preceding state of things,
several men, whose vanity seemed to have overcome their regard for truth, asserted that they had discovered the quadrature of the circle, and published their attempts in the form of strict geometrical demonstrations, with such assurance and ambiguity as staggered and misled many who could not so well judge for themselves, and perceive the fallacy of their principles and arguments. Among those were Longomono and some of the celebrated Hobbes, who obstinately refused all conviction of his errors.

The use of infinites was however disliked by several people, particularly by Sir Isaac Newton, who among his numerous and great discoveries, had given us that of the method of fluxions; a discovery of the greatest importance both in philosophy and mathematics; it being a method so general and extensive, as to include all investigations concerning magnitude, distance, motion, velocity, time, etc. with wonderful ease and brevity; a method established by its great author upon true and incontestable principles; principles perfectly consistent with those of the ancients, and which were free from the imperfections and absurdities attending some that had lately been introduced by the moderns; he rejected no quantities as infinitely small, nor supposed any parts of curves to coincide with right lines; but proposed it in such a form as admits of a strict geometrical demonstration. Upon the introduction of this method most sciences assumed a different appearance, and the most abstruse problems became easy and familiar to everyone; though which before seemed to be insuperable. It became easy examples or particular cases of theories still more general and extensive; rectifications, quadratures, cubatures, tangencies, cases of maxima and minima, and many other subjects, became general problems, and delivered in the form of general theories which included all particular cases; thus, in quadratures, an expression might be investigated which defined the areas of all possible curves when ever, both known and unknown, and which, by proper substitutions, brought out the area for any particular case, either in finite terms, or in infinite series, of which any term, or any number of terms could be easily assigned and the like in other things. And although no curve, whose quadrature was unsuccessfully attempted by the ancients, became by this method perfectly quadrable; there were assigned many general methods of approximating to their areas, of which in all probability the ancients had not the least idea or hope; and innumerable curves were squared which were utterly unknown to them.

The excellency of this method revived some hopes of squaring the circle, and its quadrature was at one time as much as praised. The quadrature of a space was now reduced to the finding of the fluent of a given fluxion; but this problem however was found to be incapable of a general solution in finite terms; the fluxion of every fluent was always assignable, but the reverse of this problem could be effected only in particular cases; among the exceptions, to the great grief of the geometers, was included the case of the circle with regard to all the forms of fluxions attending it. Another method of obtaining the area was tried; of the quantity, expressing the fluxion of any area, in general, could be assigned the fluent in the form of an infinite series, which series therefore defined all areas in general, and which, on substituting for particular cases, was often found to break off and terminate, and so afford an area in finite terms; but here again the case of the circle failed, its area still coming out in infinite series. All hopes of the quadrature of the circle being now at an end, the geometers employed themselves in discovering and selecting the best forms of infinite series for determining its area, among which it is evident, that these two properties were divided, the same series very rarely includin: them both; the mathematicians in most parts of Europe were now busy, and many series were assigned on all hands, some admired for their simplicity, and others for the rate of convergence; those which converged the quickest, and were at the same time simplest, which therefore were most useful in computing the area of the circle in numbers, were those in which, besides the radius, the tangent of some certain arc of the circle, was the quantity by whose infinite series the quantity itself was thus defined all areas in general, and which, on substituting for particular cases, was always found to break off and terminate, and so afford an area in finite terms. Among others for the rate of convergence; those which converged the quickest, and were at the same time simplest, which therefore were most useful in computing the area of the circle in numbers, were those in which, besides the radius, the tangent of some certain arc of the circle, was the quantity by whose infinite series the quantity itself was thus defined. 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tions in the principles or method of treating of geometry, have been made especially for the improvement of this chief part of it, mensuration, which abundantly shows, what we at first undertook to declare, the dignity of this subject, a subject which, as Dr. Barrow says, after mentioning some other things, "deserves to be more curiously watched," because from hence a name is imposed upon that mother and mistress of the rest of the mathematical sciences, which is employed about magnitudes, and which is wont to be called geometry (a word taken from ancient use, because it was first applied only to measuring the earth, and fixing the limits of possessions) though the name second very ridiculous to Plato, who substitutes place under Louis the Thirteenth, the name assigned Fr. An appointment which first took place under Louis the XI. in 1564.

**Mesures à pouce,** Fr. Tin cases or vessels used in the artillery, to measure out gunpowder, according to the size and calibre of each piece of ordnance. See Powder Measures.

**Mesure de métal,** (in gunnery) when the mouth of a piece of ordnance, in discharging it, lies higher than the breech, it is then said to be laid over metal.

**Mesure de métal,** (in gunnery) is when the mouth of a piece of ordnance lies lower than the breech.

**Right with metal,** (in gunnery) When a piece of ordnance lies truly level, point blank, or right with the mark, she is said to lie right with her metal.

**Surface of metal,** (in gunnery) The surface or outside of a gun.

**Mettre à la main,** Fr. Means, literally, any calling or business. In a military sense, it is peculiarly applicable to those nations which keep up large standing armies, and make war their principal object and pursuit. In speaking of military matters, it is common among the French to say—*la guerre est un métier pour les hommes*.

**Mettre l'épée à la main,** Fr. To grasp or take hold of any thing.

**Mettre les armes à la main,** (in fortification) To throw swords. It means l'épée à la main, a figurative expression, signifying, they took their ground, and stood prepared to fight.

**Mètre de camp,** Fr. The commanding officer of a regiment of cavalry was so called in the old French service. He was distinguished by this appellation on account of these being a colonel-general in the cavalry. The duty of a mètre de camp was principally confined to the following heads:—To see that the troops or companies were kept complete; that the arms were in good state and condition, the horses of a proper size, sound, and well trained. He had likewise the direction of the different guards, &c.

**Mètre de camp général,** Fr. The next officer in rank, in the old French cavalry service, to the colonel-general. This appointment was created under Henry II. in 1552.

**Méridien,** Fr. It was distinguished by this appellation which first took place under Louis the XII. in 1564.

**Messieurs,**Fr. A title of address, or a military distinction given to officers or soldiers, for some signal service, the badge of which is generally expressive of the service. Such was the medal, or order of merit, presented by the Emperor to the officers of the 15th British light dragoons, for their bravery in the affair of Villers-Coubré, in 1794.

**Messia,** Fr. A map to clear cannon. See **Fortification.**

**Messieurs,** Fr. It is usual and advantageous to discipline that the officers of a camp or garrison form one or more messes.

**Messengers,** Fr. Means, literally, any calling or business. In a military sense, it is peculiarly applicable to those nations which keep up large standing armies, and make war their principal object and pursuit. In speaking of military matters, it is common among the French to say—*la guerre est un métier pour les hommes.*

**Military Messengers,** Fr. Confident persons that are sent to and from head quarters, &c.

**Mestret de l'épée,** Fr. To grasp or take hold of any thing.

**Mettre l'épée à la main,** Fr. To grasp or take hold of any thing.

**Mettre les armes à la main,** Fr. To throw swords. It means l'épée à la main, a figurative expression, signifying, they took their ground, and stood prepared to fight.
time into action. C'est lui qui m'a mis les armes à la main. He first taught me how to fight, or I fought the first campaign under his orders.

**MISTRERE aux armes**, Fr. To put under arrest.

**MISTRERE sur pied**, Fr. To arm, to equip, to put troops upon an established footing.

**MEURTIERES**, Fr. Small loop holes, sufficiently large to admit the barrel of a piece gun or musquet, through which soldiers may fire, under cover, against an enemy. They likewise mean the cavities that are made in the walls of a fortified town or place. See **MORDRE**.

**MICHE.** See **MALINES**.

**MICROMETER.** (Microscope, Fr.) an instrument contrived to measure small spaces, as in the divisions of the worm of a screw.

**MILE.** Fr. the South.

**MILE, in geography, a long measure, whereby the English, &c. express the distance between places; it is of different extent in different countries. The geometrical mile contains 1600 geometrical paces, or mile passes, from whence miles are determined.

We shall here give a table of the miles in use among the principal nations of Europe, in geometrical paces, 60,000 of which, according to the English Military Dictionary, make a degree of the equator.

**Geometrical paces.**

<table>
<thead>
<tr>
<th>Country</th>
<th>Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>750</td>
</tr>
<tr>
<td>Italy</td>
<td>1000</td>
</tr>
<tr>
<td>England</td>
<td>1300</td>
</tr>
<tr>
<td>Scotland and Ireland</td>
<td>1500</td>
</tr>
<tr>
<td>The old league of France</td>
<td>1500</td>
</tr>
<tr>
<td>The small ditto</td>
<td>2000</td>
</tr>
<tr>
<td>The great ditto</td>
<td>3000</td>
</tr>
<tr>
<td>Mile of Poland</td>
<td>3500</td>
</tr>
<tr>
<td>Spain and Portugal</td>
<td>3528</td>
</tr>
<tr>
<td>Germany</td>
<td>4000</td>
</tr>
<tr>
<td>Sweden</td>
<td>5000</td>
</tr>
<tr>
<td>Denmark</td>
<td>5010</td>
</tr>
<tr>
<td>Hungary</td>
<td>6000</td>
</tr>
<tr>
<td>Holland</td>
<td>3500</td>
</tr>
</tbody>
</table>

**Mile.** Comparison of the different miles, in geometrical paces, each of which is equal to 5 feet French reais, 5 feet 7 7/19 inches, or 6 feet 11 1/16 English feet.

<table>
<thead>
<tr>
<th>Country</th>
<th>Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>5711</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4512</td>
</tr>
<tr>
<td>Denmark</td>
<td>4271</td>
</tr>
<tr>
<td>Germany</td>
<td>4000</td>
</tr>
<tr>
<td>Holland</td>
<td>3518</td>
</tr>
<tr>
<td>League of France</td>
<td>2400</td>
</tr>
<tr>
<td>Spain</td>
<td>2256</td>
</tr>
<tr>
<td>Scotland</td>
<td>1500</td>
</tr>
<tr>
<td>Italy</td>
<td>1000</td>
</tr>
<tr>
<td>England</td>
<td>800</td>
</tr>
<tr>
<td>Westphalia</td>
<td>753</td>
</tr>
</tbody>
</table>

**Miles, yards, and fathoms.** A measure of length, with which the discipline, formations, field exercise, and movements of the whole army, are directed to be observed in one uniform system. The American military system is scarcely entitled to the name of a system, and is regulated by the laws of the state, which require it to be in the interest of the army, and to include the regulation that requires yet to be established, the worst of all is that there does not appear to be a suspicion in the army that any regulation is required. See **Regulation**.

**MILITARY.** A force whose services in general, do not exceed the boundaries of the nation, but which may voluntarily extend them. The American militia has no coherent system, every state has power to regulate its own, and the effect is, that there is either no regulation at all, or what is worse, an imbecile mockery, the only use of which is the preservation of the statue book that there is a power; though there is not a will to regulate the militia. The militia among the Romans...
was frequently called Agrarian soldiers. The system of our revolution though it was not complete in general was the most effectual ever established; the French system of conscription was borrowed from America, who borrowed it from the Romans.

Mill, properly denotes a machine for grinding corn, &c. but more generally all such machines whose action depends on a circular motion. There are various kinds, though foreign to this work.

Gunpowder Mill, is that used for pounding and beating together the ingredients of which gunpowder is composed. These ingredients being duly proportioned, and put into the mortars of the mill, which are hollow pieces of wood, each capable of holding 20 pounds of paste, are incorporated by means of the pestle and spindles. There are 24 mortars in each mill, where are made each day 480 pounds of gunpowder, care being taken to sprinkle the ingredients in the mortars with water, from time to time, lest they should take fire. The pestle is a piece of wood 10 feet high, and 4 to 5 inches broad, arched at bottom with a round piece of metal. It weighs about 60 pounds.

MINE, in a military sense, implies a subterraneous passage dug under the wall or rampart of a fortification, for the purpose of blowing it up by gunpowder.

The excavation formed by the blowing up of a mine is found by experiment to be nearly a parabola. It was formerly supposed that the diameter of the entrenchment, or excavation, was always equal to only double the line of least resistance; but experiments have proved, that the diameter of the excavation may be increased to six times the line of least resistance, and that the diameter of the globe of compression may be increased to eight times that line, which is called the maximum of a mine, or the greatest effect that can be produced by a globe of compression. In any mine intended to produce an effect within this extent, the effects will be nearly as the charges.

The globes are to each other as the cubes of their radii. Their radii are the hypotenuse of right-angled triangles, of which the line of least resistance, and the semi-diameter of the excavation, are the other two sides. Therefore, to find the charge to produce any required diameter of the excavation, the following will be the rule, the radius being found as above:

1. The cube of the radius of the globe of compression in the following table, (having the same line of least resistance as the required globe) is to the cube of the radius of the required globe.
2. So is the charge corresponding in the following table, to the charge required.

### Table for the Charge of Mines, according to Vauban.

<table>
<thead>
<tr>
<th>Line of Least Resistance</th>
<th>Charge for the Mine</th>
<th>Line of Least Resistance</th>
<th>Charge for the Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feet.</td>
<td>lbs. oz.</td>
<td>Feet.</td>
<td>lbs. oz.</td>
</tr>
<tr>
<td>1</td>
<td>0 2</td>
<td>26</td>
<td>808</td>
</tr>
<tr>
<td>2</td>
<td>2 8</td>
<td>27</td>
<td>1296</td>
</tr>
<tr>
<td>4</td>
<td>6 15</td>
<td>29</td>
<td>1814</td>
</tr>
<tr>
<td>6</td>
<td>10 27</td>
<td>31</td>
<td>2332</td>
</tr>
<tr>
<td>8</td>
<td>14 55</td>
<td>33</td>
<td>2850</td>
</tr>
<tr>
<td>10</td>
<td>18 83</td>
<td>35</td>
<td>3369</td>
</tr>
<tr>
<td>12</td>
<td>22 115</td>
<td>37</td>
<td>3988</td>
</tr>
<tr>
<td>14</td>
<td>26 147</td>
<td>39</td>
<td>4608</td>
</tr>
<tr>
<td>16</td>
<td>30 180</td>
<td>41</td>
<td>5229</td>
</tr>
<tr>
<td>18</td>
<td>34 214</td>
<td>43</td>
<td>5849</td>
</tr>
<tr>
<td>20</td>
<td>38 257</td>
<td>45</td>
<td>6470</td>
</tr>
</tbody>
</table>

This table is calculated upon the supposition that the excavation of the mine is a paraboloid, having a base double the line of resistance; and that 10 lbs. 10 oz. of powder is sufficient for raising one cubic fathom of earth. By the rule above given may be found the charge for any mine, that shall only shake the ground, without making any excavation, by making the line of least resistance of the required globe only equal to the radius of the globe of compression.

The charges thus found by means of this table, being only for one nature of soil, viz. light earth and sand, in which the table is calculated must be augmented according to the following table of Vauban's, by one, four, five, seven, or nine elevenths of the charge found.

### Table of the Quantity of Powder Required to Raise a Cubic Fathom, according to the Soil.

| 1 Light earth, mixed with sand | 4 pounds. |
| 2 Common earth | 12 |
| 3 Strong sand | 15 |
| 4 Clay, or fat earth | 16 |
| 5 Old and good masonry | 18 |
| 6 Rock | 20 |

The following rule is however laid down by Bélidor, and generally adopted, if it be intended that the mine shall produce its maximum or greatest effect; multiply the line of least resistance, expressed in feet, by 300, the product will be the charge in pounds.
In making mines of any kind, the following remarks may be of service.

The best form for the chamber would be spherical; but from the difficulty of its construction, it is always made a cube, of one inch greater dimensions than the box to contain the powder.

The chamber must not be made in the proportion of the branch of the mine, but at one side, and lower than the level of the branch, if the soil be dry; but higher if it be wet.

One cubic foot will contain 75 lbs. of powder; upon which principle the size may be regulated. The actual is generally one inch square interior dimensions, and the end of it must reach the centre of the chamber, where the sausage must be fastened, to prevent its being easily pulled out.

The branch of the mine to be sprung must be secured in the strong manner by doors well secured by props, and must be stopped with earth or rubbish to a distance, taken in a straight line, equal to 1.2 times the line of least resistance.

In proportioning the length of sausage, in order that any number of mines may be fired at the same instant, a return of a right angle is generally reckoned equal to 4 inches in a right line.

The first step in making a mine, whether for attack or defence, is to sink a shaft to the depth of the bottom of the gallery, having two of its sides in the direction of the sides of the gallery. These shafts should be where the galleries are to extend each other, or in the centre of the length of gallery to be made. These shafts should never be further apart than 49 or 50 fathoms; for it is found, that the air is not fit for respiration in the larger galleries at a greater distance from the shaft than 25 fathoms; at 20 feet in those of medium dimensions; and at 13 in the smallest.

The rectangular frames used in sinking a shaft are commonly placed 4 feet under; and in the galleries they are only 3 feet. A gallery intended to be lined with masonry, must be 7 feet high and 6 feet wide, in order that it may be finished, 6 feet high and 3 feet wide.

Temporary galleries are only made 4.1 feet high, and 3.2 or 3.5 feet wide. The branches, at the ends of which the chambers are to be placed, are only made 2.1 or 3 feet high, and 2 feet, or 2 feet 3 inches wide.

The first of these is dug on the knees; the second sitting or lying.

The miners are divided into squads of 4 each; and the rate of the work for each squad is 3 feet of the temporary gallery in 4 hours. The first squad is relieved by the second, after having worked 2 hours; or laid one frame; which second squad is again relieved by the first, at the expiration of the same time.

In the most easy ground to work, a miner may be heard to the distance of 15 or 15 fathoms under ground; and the noise made by firing the frames of the galleries may often be heard as far as 20 or 25 fathoms. A drum braced, standing on the ground, with a few peals of other round substances on the head, will be very sensibly affected by an approaching mine.

It is of the most essential consequence to place the entrances to the countermines beyond the reach of any surprise from the enemy.

To prevent an enemy gaining possession of the galleries of the countermines they should be well secured by strong gates; and at every 15 fathoms. These should be unmistakable.

A gallery, properly counterminded, and every advantage taken of it to retard the besiegers, may, with proper management, prolong a siege at least 5 months; and if the rest of the works are also counterminded, and properly defended, they may add another month to the siege. Every system of countermines must depend upon the system of fortification to which they are to be adapted; the general principle for their regulation is, that the galleries should occupy situations, from which branches can be most readily run out under the most probable points of the besieger's batteries and approaches. The general system of countermines commonly used in a place prepared before hand, is as follows: the principal or magistral gallery runs 21 round the work, under the banquet of the covert way, and across the places of arms, having the entrances at the receding places of arms. Nearly parallel to this at 22, 25 or 30 fathoms distance is another gallery, called the envoy. These two galleries are connected by galleries of communication, under the gutters of the re-entering parts of the glacis, and under the ridges of the salient parts. From the envoy are run out about 15 or 16 fathoms, galleries in directions parallel to the capitals of the works, and at 23 fathoms distance from each other. These are called listeners.

Sometimes, shafts are sunk from the end of these listeners, and by connecting these shafts, a second envelope formed. The escarp of the different works, galleries are likewise made, about the level of the bottom of the ditch; from whence branches may be run out into or under the foundations of the walls; and if the ditch be dry, galleries of communication may be made, from these to the magistral gallery; and from which communications branches may be run out for chambers to annoy the besiegers in their passage of the ditch. The entrances to the escarp galleries are by means of posterns, which descend from behind the interior slope of the rampart.

If a place be not counterminded before hand, a great deal may be done even after
the investment of the place, to prolong the siege indefinitely. In this case, the first thing to be done immediately that the place is invested, is to sink a shaft in each of the places of arms of the cover way; one in each branch of the cover way opposite that part of the bastion where the breach will most probably be made; and one in the flanked angle of each bastion. Those on the cover way will be on the banquette, and sunk to about 18 inches below the bottom of the ditch. Those in the bastions to about 12 feet below the bottom of the ditch. Thus prepared, the moment the side on which the attack is to be made can be ascertained, galleries must be cut from these shafts on the side attacked along the capitals, in the form of trefoils, or double T's and advanced as far into the country as the soil will admit. Communication galleries may likewise be driven between these different works on the covert way, and from them to the works in the bastions; which will prevent the enemy gaining possession of their entrances. All these works may be carried on after the investment of the place; and be in sufficient readiness by the time the enemy gains the third parallel.

The following rules are given by Vauban for fougasses, or small mines, having the diameter of the excavation equal to double the line of least resistance. The side of the chamber must be exactly a ninth part of the depth of the shaft. The side of the box to hold the powder exactly a ninth part of the depth of the shaft.

These remarks respecting mines are principally extracted from the General Essay on Fortification before mentioned, written in French and published at Berlin, 1799, called the Counter-mine. 

Counter-mines are those made by the besieged, whereas mines are generally made by the besiegers. Both mines and counter-mines are made in the same manner, and for the like purposes, viz., to blow up their enemies and their works; the principal galleries and mines of the besieged, are usually made before the town is besieged, and frequently at the same time the fortification is built, to save expense.

Foyer, Fr. Focus at centre of the chamber, where the breach will most probably be made; called the excavation.

The passage leading to the powder is called the gallery.

The line drawn from the centre of the chamber, perpendicular to the nearest surface of the ground, is called the line of least resistance.

The pit or hole, made by springing the mine, is called the emission.

The fire is communicated to the mines by a pipe or hose, made of coarse cloth, whose diameter is about one and a half inch, called a saucisson, for the filling of which near half a pound of powder is allowed to every foot extending from the chamber to the entrance of the gallery, to the end of which is fixed a match, that the miner who sets fire to it may have time to retire, before it reaches the chamber.

To prevent the powder from contracting any dampness, the saucisson is laid in a small trough, called an aperet made of boards, three and a half inch broad, jointed together, lengthwise, with straw in it, and round the saucisson, with a wooden cover nailed upon it.

Foyer, Fr. Focus at centre of the chamber, where the breach will most probably be made; called the excavation.

Definitions of Mines. A mine is a subterraneous cavity made according to the rules of art, in which a certain quantity of powder is lodged, which by its explosion blows up the earth above it. It has been found by experiments, that the figure produced by the explosion is a parabola, and that the centre of the powder or charge, occupies the focus. The place where the powder is lodged is called the chamber of the mine, or foyeur.

The passage leading to the powder is called the gallery. The line drawn from the centre of the chamber, perpendicular to the nearest surface of the ground, is called the line of least resistance. The pit or hole, made by springing the mine, is called the emission. The fire is communicated to the mines by a pipe or hose, made of coarse cloth, whose diameter is about one and a half inch, called a saucisson, for the filling of which near half a pound of powder is allowed to every foot extending from the chamber to the entrance of the gallery, to the end of which is fixed a match, that the miner who sets fire to it may have time to retire, before it reaches the chamber.

To prevent the powder from contracting any dampness, the saucisson is laid in a small trough, called an aperet made of boards, three and a half inch broad, jointed together, lengthwise, with straw in it, and round the saucisson, with a wooden cover nailed upon it.

Foyer, Fr. Focus at centre of the chamber, where the breach will most probably be made; called the excavation.

Definitions of Mines. A mine is a subterraneous cavity made according to the rules of art, in which a certain quantity of powder is lodged, which by its explosion blows up the earth above it. It has been found by experiments, that the figure produced by the explosion is a parabola, and that the centre of the powder or charge, occupies the focus. The place where the powder is lodged is called the chamber of the mine, or foyeur.
The nature can only be determined by making a mine. The following table contains experiments in 6 different soils, which may be of some assistance to form a judgment of the nature of the soil, when an actual experiment cannot be had.

<table>
<thead>
<tr>
<th>Nature of the soil</th>
<th>Weight of 1 cubic foot</th>
<th>Density</th>
<th>Quantity of powder to raise 1 cubic foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay soil</td>
<td>14.4</td>
<td>4.5</td>
<td>1.301030</td>
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<tr>
<td>Silt</td>
<td>18.5</td>
<td>5.0</td>
<td>1.602060</td>
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<tr>
<td>Loam</td>
<td>20.5</td>
<td>5.5</td>
<td>2.301030</td>
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<tr>
<td>Sand</td>
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<td>6.0</td>
<td>2.602060</td>
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<tr>
<td>Gravel</td>
<td>24.5</td>
<td>6.5</td>
<td>3.000000</td>
</tr>
<tr>
<td>Rock</td>
<td>26.5</td>
<td>7.0</td>
<td>3.301030</td>
</tr>
</tbody>
</table>

The following table contains experiments in 6 different soils, which may be of some assistance to form a judgment of the nature of the soil, when an actual experiment cannot be had.

1. The diameter of the excavation is 20, and its square is 400.
2. Double the line of least resistance is 20, and its square is 400.
3. The sum to be reserved is 280.
4. Which leaves the remainder 20.
5. Half the remainder is 10.
6. Which multiplied by the line of least resistance, is 20.
8. Which multiplied by 1.57.
Gives the solidity of the excavation 216 feet 1836.9 feet.

Example 1.
It is required to make a mine in the second sort of soil, mentioned in the foregoing experiments, which shall have a line of least resistance of 10 feet, and the diameter of its excavation 20 feet; what will be the proper charge?

The nature of this soil, by the table, requires 10 pounds of powder to 216 cubic feet.

Calculation.

1. The diameter of the excavation is 20, and its square is 400.
2. Double the line of least resistance is 20, and its square is 400.
3. Therefore the sum to be reserved is 280.
4. Which leaves the remainder 20.
5. Half the remainder is 10.
6. Which multiplied by the line of least resistance, is 20.
8. Which multiplied by 1.57.
9. Gives the solidity of the excavation 216 feet 1836.9 feet.

Problem I.
Given the nature of the soil, the diameter of the excavation, and the line of least resistance, to find the charge.

Rules.

1. To the square of the diameter of the excavation, add the square of double the line of least resistance, and reserve the said sum.
2. Multiply the square root of the reserved sum by double the line of least resistance, and subtract the product from the same sum.
3. Multiply half the remainder by the line of least resistance, and 1.57 times the product, will give the solidity of the excavation.
4. The charge will then be determined from the nature of the soil, as in the following example.

Example 1.
It is required to make a mine in the second sort of soil, mentioned in the foregoing experiments, which shall have a line of least resistance of 10 feet, and the diameter of its excavation 20 feet; what will be the proper charge?

The nature of this soil, by the table, requires 10 pounds of powder to 216 cubic feet.
Let a mine be charged with 100 pounds of powder in a soil which requires 11 pounds of powder to raise 216 cubic feet, and let its line of least resistance be 10 feet; what will be the diameter of the excavation?

By the nature of the soil 11 lb. = 30 7/10 ft. = 196 4/5 feet, which is the solidity of the earth to be raised.

Therefore multiply 216 by 196 4/5 gives 42,942 18.

The product is 42,942 18

Which divided by the line of least resistance, 10, is 4,294 2 18.

To which add the square of the line of least resistance 100, gives 4,394 2 28.

And the sum to be reserved is 4,394 2 28.

The square root of 349.428 is 18.71. What multiplied by twice the line of least resistance, 20, gives 374.

This added to the sum reserved gives 723.428.

From which subtract 3 times the square of the line of least resistance 300, gives 423.428.

And there will remain 423.428.

The square root of which is 20 5 feet, being the required diameter of the excavation.

\[ \text{Cubic feet} = 216 \times 0.543323 \]

\[ \text{Powder in lb.} = 8.95807 \times 100 = 895.807 \]

\[ \text{Line of least resist.} = 10 \]

\[ \text{ce. ar.} = 9.00000 \]

\[ \text{Constant logarithm} = 0.103804 \]

\[ \text{Logarithms of} 349.428 = 2.543323 \]

\[ \text{Addition to the sum reserved} = 2.396855 \]

\[ \text{To which add the square of the line of least resist.} = 100.0 \]

\[ \text{Sum to be reserved is} = 359.4 \]

\[ \text{Half of which logarithm} = 1.271661 \]

\[ \text{Twice line of least resist.} = 20 \]

\[ \text{Product to be added is} = 2.572691 \]

\[ \text{The result is} = 373.8 \]

\[ \text{From which subtract thrice the square of the line of least resist.} = 300.0 \]

And there remains 2.572691 - 300.0 = 723.8.

Example 1.

MINERS, in a military sense, are generally soldiers; most of the European regiments of artillery have each a company of
MINES, commanded by a captain and two lieutenants. When the miners are at work in the mines, they wear a kind of hood, to keep the earth that falls out of their eyes. In the English service the artisans are ordered for that purpose.

Mines tools, consist in several sorts of spades, wheel-barrows, axes, hand-levers, chisels, sounding-auges, sledges, hammers, masons' hammers, mattocks, plumbets, miner's dial, and miner's rule, &c.

Different sorts of Mines, are as follows:

Pencilles, are a sort of small mines, frequently made before the weakest parts of a fortification, as the salient angles and faces, not defended by a cross fire.

Two Mines, are mines with two chambers only.

T. Mines, so called from their great resemblance to that letter. They are double mines, having four lodgments.

Double T Mines, have eight lodgments, and two doors.

Triple T Mines, have twelve lodgments, and six doors.

Double Tripe Mines, have four lodgments, and eight doors.

Triple Tripe Mines, have six lodgments, and twelve doors.

MINING, in the art of war, is become one of the most essential parts of the attack and defence of places; so much utility is used, that nothing above ground can withstand its effects; the most substantial ramparts and parapets can last but a short time; the outworks, though numerous serve only to retard for a time the surrender of the place.

History informs us, that mines were made long before the invention of gunpowder; for the ancients made galleries or underground passages, much in the same way as the moderns, from without, under the walls of the places, which they cut off from the foundation, and supported them with strong props; then they filled the intervals with all manner of combustibles, which being set on fire burnt their props and the wall being no longer supported, fell, whereby a breach was made.

The besiegers also made underground passages from the town under the besieger's machines, by which they battered the walls, to destroy them; which proves necessity to have been the inventors of mines, as well as of other arts.

The first mines, since the invention of gunpowder, were made in 1487, by the Genoese, at the attack of Serecanelli, a town in Florence; but these failing, they were for some time neglected, till Peter Navarro, being then engineer to the Genoese, a d afterwards to the Spaniards in Naples, at the siege of the castle dei Ovo, made a mine under the wall, and blew it up. In consequence of which the castle was taken by storm.

M. Vallente relates the same story, but differs in the name of the engineer; he says it was Francis George, an Italian, who, serving at Naples in quality of architect, proposed to Peter Navarro, the Spanish governor to take this castle by mines.

Mines of every thing used in Mining.

Auger, a kind of small trough, made of strong inch boards, about 4 inches square, in which the saucisson is laid in straw, to prevent the powder from contracting any dampness.

Chamber, the place where the powder is lodged, being first put in cubical boxes made for that purpose.

Excavation, the pit or hole made by the Engineer, when a mine is sprung.

Focus, the centre of the chamber where the powder is lodged.

Pengias, a kind of small mine.

Pewter. See Chamber.

Miners Tools, are augers of several sorts, levers of different sorts, needles for working in rocks, rakes, spades, shovels, stoke-hammers, masons' hammers, picks, axes, picks, mattocks, chisels, plumbets, rules, a miner's dial, &c.

Line of Least Resistance, is a line drawn from the centre of the space containing the powder, perpendicular to the nearest surface.

Gallery, the passage leading to the powder. Saucisson, is a pipe or hose made of coarse cloth, whose diameter is about an inch, and filled with gunpowder; then laid in a trough or auger, which extends from the chamber to the entrance of the gallery, that the miner who sets fire to it, may have time to retire before it reaches to the chamber.

MINING, in military affairs, is the art of blowing up any part of a fortification, building, &c. by gunpowder. The art of mining requires a perfect knowledge both of fortification and geometry; and by these previous helps, the engineer may be qualified to ascertain correctly the nature of all manner of heights, depths, breadths, and thicknesses; to judge perfectly of slopes and perpendiculars, whether they be such as are parallel to the horizon, or such as are visual; together with the true levels of all kinds of earth. To which must be added, a consummate skill in the quality of rocks, earths, masonry, and sands; the whole accompanied with a thorough knowledge of the strength of all sorts of gunpowder.

MINION, a piece of ordnance, of which there are two kinds, the large and ordinary; the large minion has its bore 3 inches diameter, and is 1000 pounds weight; its length is 21 inches in diameter, and 32 pounds weight; its length is eight feet, and its level range 153 paces. The ordinary minion is three inches diameter in the bore, and weighs about 800 pounds weight; its seven feet long, its load 2 1/2 pounds of powder, its shot near three inches in diameter, and weight three
pounds four ounces, and shoots point blank 126 paces.

MINISTER, according to Johnson, is one who has not an inherent authority of his own, but under another. Thus in England all ministers act under a supreme authority, which is vested in the king, lords, and commons, to whom they are responsible. In military matters, there is not only a war minister, but a secretary at war, who likewise acts conjointly with the secretary of state. All dispatches and papers of consequence relating to the army must first pass through the secretary of state, and the war minister, before they are laid before parliament, or otherwise acted upon by the secretary at war. The common arrangements of corps, directions with respect to marching, and information transmitted to the secretary at war, and to the quarter-master general’s office, without previously passing through the secretary of state, or war minister.

MINISTRE de la guerre, Fr. Minister of the war department. The appointment of minister and secretary at war, among the French, first took place in the reign of Henry the II. in 1549. See War.

MINUTE, a hasty sketch taken of any thing, in writing. Hence minutes of a general or regimental court-martial.

MINUTES of council in the military department. The notification of orders and regulations, which are directed to be observed by the British army in India, is so called. These minutes receive the same formality as our own dispatches and papers of consequence relating to the army. They answer to the French word Résolution, which was prefixed to all orders and regulations that were occasionally issued by the military boards, or conseils de guerre, for the government of the army. The term, règlement d’un conseil de guerre, corresponded with our minutes of a general or regimental court-martial, and expressed not only the minutes but the sentence of the court.

MINUTE, the 50th part of each degree of a circle; and, in computation of time, the 50th part of an hour; it also denotes a short memoir or hasty sketch taken of any thing in writing. See Measure.

Le Minute, Fr. The original of a sentence or decree.

To MISBEHAVE, in a military sense, to act in any manner unbecoming the character of an officer or soldier.

To MISBEHAVE before the enemy, to abandon the colors, or shunfully give way to fortune. See War.

MIQUELETS, Fr. A banditti that infest the Pyrenean mountains, and are extremely obnoxious to travelers.

MIQUELETTI. A small body of mountain fusiliers, belonging to the Neapolitan army.

MIRO. Fr. In the French artillery, a piece of wood about four inches thick, one foot high, and two feet and a half long, which is used in piercing cannon.

Mise de MISSILE, Fr. Wedges made of wood, which serve to raise or depress any piece of ordnance. They are likewise used for the same purpose in mortars.

MISERICORDE, Fr. A short dagger, which the cavalry formerly used, for the purpose of dispatching an enemy who would not ask quarter or mercy.

MISSILE, any weapon which is either thrown by the hand, or which strikes at a distance from the moving power.

MITRAILLE, Fr. Small pieces of old iron, such as heads of nails, &c. with which pieces of ordnance are frequently loaded.

Tirer à Mitraille, Fr. To fire with grape shot. This term is frequently used by the French, to express the bullets which is practised in war time by one nation upon another, for the purpose of fomenting civil insurrections. Hence tirer à mitraillette d’or.

MITRE, a mode of joining two boards, or other pieces of wood to-gether at right angles.

MOAT, a wet or dry ditch, dug round the walls of a town, or fortified place. When an enemy attacks a town, which has dry moats round it, the rampart must be approached by galleries under ground, which galleries are run beneath the moat; when the place is attacked through wet moats, your approach must be made by galleries above ground, that is to say, by galleries raised on the surface of the water. The brink of the moat next the rampart is called the scarp, and the opposite one the counterscarp.

Dry Moat, that which has no water. It should invariably be deeper than the one that is full of water.

Flat bottomed Moat, that which hath no sloping, its corners being somewhat rounded.

Lined Moat, that whose scarp and counterscarp are cast with a wall of mason work made adaptable.

MODEL, a mould; also a diminutive representation of any thing. Thus models of warlike instruments, fortifications, &c. &c. are preserved in the British laboratory at Woolwich.

MODERN, something of our own time, in opposition to what is antique or ancient.

MODERNE Tactics, and MODERN Art of War. That system of manœuvre and evolution, which has been adopted since the invention of gunpowder, and particularly the system improved by the French within twenty years. See Am. Art, Lit.
Ancient Tactics, and ancient art of War.

The system which was pursued by the Greeks and Romans, etc., before the invention of gunpowder and fire-arms.

MOGNIONS, from the French Maigron, signifying the stump of a limb. A sort of armor for the shoulders.

MOGUL, the emperor of India, from whom the nabobs (properly Naibs, a deputy) originally received their appointments, as governors and superintendents of provinces.

MOGUT Tartars, a nation so called that made considerable conquests in India.

MOIENNÉE, Fr., a golden coin, of which there are several values, but generally goes for fifteen or sixteen rupees; a river, to be scrupulously correct on this head, which there are several values, but generally goes for every responsible minister.

MOINE, Fr., A piece of ordnance, which is now called a four pounder, and which is ten feet long, was formerly so much.

MOINEAU, a French term for a little flat bastion, raised upon a re-entrant angle, before a curtain which is too long; it is commonly joined to the curtain, but sometimes separated by a fosse, and then called a detached bastion. They are not raised so high as the works of the place.

MOIS ROMAINE, Fr., A term used in Germany, to signify a particular tax or contribution, which the emperors had a right to demand on urgent occasions. This tax grew out of an old custom which originally prevailed when the emperors went to Rome to be crowned, and which served to subsist their expenses thither. Thus when the tax was required, it was called for as a contribution of so many Roman marcs; implying a certain sum for so many.

MOISSON, Fr., Harvest. This word is used in various senses by the French, particularly in two of a poetical and picturesque kind, viz. Il a vu cinq ou mille moissons: he has lived fifty years; literally, has seen fifty harvests.

MOISSON de la victoire, Fr., A succession of victories, nates, literally a harvest of laurels, MOISSON de gloire, is taken in the same sense.

MOISSONNER des lauriers, Fr., To reap laurels.

MOISSONNER les hommes, Fr., To kill all, etc. To mow down men.

MOLLER, Fr., Literally means to wax soft. It is used figuratively among the French to signify, in a military sense, the yielding or giving way of armed men, viz., les troupes molles, the troops gave way.

MOLLESSE, Fr., in a figurative sense, signifies want of firmness or resolution. Je crains la mollesse de vos conseils: I mistrust the pliable tenacity of your advice or counsel.

MONDE, Fr., in a military sense, means men or soldiers, viz. Ce capitaine m'a vu que la moitié de son monde: such a captain had only half his complement of men.

On a perdu un brasseau de monde, Fr. They lost a considerable number of men.

Ul a un monde d'ennemis sur les bras, Fr. He is assailed by a multitude of foes.

Aller à l'autre monde, Fr. This expression bears the same import in English that it does in French, viz. to die literally, to go into the other world.

Le Nouveau Monde, Fr. This term is frequently used to denote America. Hence L'Ancien et le Nouveau Monde, means the two continents.

MONEY-matters. An expression in familiar use to express all pecuniary concerns. It cannot be too strongly recommended to every responsible military man to be scrupulously correct on this head.

More than half the breaches of friendship and common acquaintance which occur in life, may be traced to irregularity: but in no instance are its effects so fatal, as when the soldier is wounded, or is induced to think so by the omission, etc. of officers or superiors.

Of the Moneys, Weights, and Measures, of Foreign Nations respectively with those of England.

In order to the attainment of a just comparison of foreign moneys with our own, the following tables are subjoined.

The first table contains the denominations of the principal foreign moneys of account, and their intrinsic value in English money, calculated upon the existing proportion between gold and silver in the respective countries.

The second table shews the names of the principal foreign coins in gold, their weight, their fineness, their pure content, and the intrinsic value of each in relation to the gold coins of Great Britain.

The third table relates to silver coins, upon similar principles to those of the second.

The comparison of the weights and measures of foreign nations with those of England is established by the following tables.

The fourth table bespeaks the names of the weights used for precious metals, the quantity which each contains in troy-weight, and the relation of the several foreign weights to 100 pounds troy-weight.

The fifth table denotes the names of the weights used in the sale of merchandise, the quantity which each contains in troy-weight, and the relation of foreign weights to 100 and to 112 pounds avoirdupois-weight.

The sixth table relates to the measures used in the sale of corn, to the number of English cubic inches in each imperial measurement of each, and to the relation of foreign measures to 10 quarters Winchester measure.

The seventh table comprises the measures for liquids, the quantity of English cubic inches which each contains individually, and the relation of foreign measures to 100 gallons English.
The eighth table relates to cloth measures, to the length of each in lines, and to the relation of foreign measures to 100 yards and to 100 ells.

The ninth table is descriptive of measures of length for measuring masts, timber, and other solid bodies, of the number of lines contained in each, and of the proportion between foreign measures of a similar description and 100 feet English.

The tenth table refers to land measures, to the quantity of English square feet which each contains, and to the proportion between foreign measures of this description and 100 acres.

The eleventh and last table is founded upon itinerary measures, the length of each in feet, and the proportion between the measures severally adopted in different countries and a degree of the equator.

Independently of the facility which will be afforded by these tables in the comparison of the monies, weights, and measures of foreign nations with those of England, it will not be difficult to find the relation of the monies, weights, and measures of foreign countries, in respect to each other, by the guidance of the explanations at the foot of each of the tables in question.

It will be observed, that in order to avoid the multiplicity of the denominators of fractions, and to give to the several calculations a greater degree of exactitude, the unit has constantly been divided, in the following tables, into 100 parts.

TABLE, which shows the intrinsic Value of the monies of account of Foreign Nations expressed in pence sterling.

<table>
<thead>
<tr>
<th>Monies of Account</th>
<th>Pence 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aix la Chapelle,</td>
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</tr>
<tr>
<td>the specie rixdollar</td>
<td>42, 75</td>
</tr>
<tr>
<td>Amsterdam,</td>
<td>12, 25</td>
</tr>
<tr>
<td>the current rixdollar</td>
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<tr>
<td>Aragon,</td>
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<td>the crown rixdollar</td>
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<td>Frankfort</td>
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<td></td>
<td>the gulden</td>
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<td>Munich</td>
<td>the current gulden</td>
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<td>Naples</td>
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<td>Navarre</td>
<td>the ducado of 8, 9 reals</td>
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<td>the libra of 60 maravedis</td>
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<td>Nuremberg</td>
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<td>the lira-caro</td>
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<td>the silver tical</td>
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<td></td>
<td>the toman</td>
</tr>
<tr>
<td>Poland</td>
<td>the florin of Great Poland</td>
</tr>
</tbody>
</table>
The following example will shew in what manner the relation between the monies of account of any two given countries may be ascertained.

**Example.**

Let it be required to express, in pence Irish, the value of a marc banco of Hamburg.

The marc being worth 18,45 pence sterling, and the pound Irish 221,54, according to the table prefixed, I state the following equation:

1 marc banco = 221,54 pence sterling
1 marc banco = 1 pound Irish
1 pound Irish = 22,45 pence Irish

Result 1999 pence Irish.

| TABLE, which shows the Weight, Fineness, and pure Contents of the principal Gold Coins of foreign Nations, as well as their intrinsic Value, expressed in English Money. |

**Gold Coins.**

<table>
<thead>
<tr>
<th>Country</th>
<th>Coin</th>
<th>Weight</th>
<th>Fineness</th>
<th>Pure contents</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bavaria</td>
<td>the ecu</td>
<td>150.32</td>
<td>18</td>
<td>25</td>
<td>117.18</td>
</tr>
<tr>
<td>Bengal</td>
<td>the mohur</td>
<td>100.21</td>
<td>18</td>
<td>28</td>
<td>77.34</td>
</tr>
<tr>
<td>Brunswick</td>
<td>the ducat</td>
<td>176.50</td>
<td>20</td>
<td>33</td>
<td>174.60</td>
</tr>
<tr>
<td>Denmark</td>
<td>the ducat</td>
<td>103.39</td>
<td>21</td>
<td>3</td>
<td>92.70</td>
</tr>
<tr>
<td>England</td>
<td>the guinea</td>
<td>48.21</td>
<td>21</td>
<td>0</td>
<td>42.52</td>
</tr>
<tr>
<td></td>
<td>the half guinea</td>
<td>139.44</td>
<td>22</td>
<td>5</td>
<td>118.95</td>
</tr>
</tbody>
</table>

The following example will shew in what manner the relation between the monies of account of any two given countries may be ascertained.
### Gold Coins

<table>
<thead>
<tr>
<th>Location</th>
<th>Coin Type</th>
<th>Weight</th>
<th>Fineness</th>
<th>Pure Contents</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flanders</td>
<td>the double souverain</td>
<td>171.50</td>
<td>22</td>
<td>157.50</td>
<td>07.79</td>
</tr>
<tr>
<td></td>
<td>the souverain</td>
<td>85.75</td>
<td>22</td>
<td>78.60</td>
<td>06.09</td>
</tr>
<tr>
<td></td>
<td>the louis of 1726</td>
<td>132.80</td>
<td>21 22</td>
<td>110.95</td>
<td>07.05</td>
</tr>
<tr>
<td></td>
<td>the louis of 1785</td>
<td>117.83</td>
<td>21 22</td>
<td>109.95</td>
<td>08.33</td>
</tr>
<tr>
<td></td>
<td>the 40 franc piece</td>
<td>193.15</td>
<td>21 22</td>
<td>179.25</td>
<td>13.85</td>
</tr>
<tr>
<td></td>
<td>the 20 franc piece</td>
<td>99.63</td>
<td>21 22</td>
<td>90.60</td>
<td>15.05</td>
</tr>
<tr>
<td>Geneva</td>
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<td>167.13</td>
<td>21 22</td>
<td>155.62</td>
<td>14.82</td>
</tr>
<tr>
<td>Genoa</td>
<td>the zecchino</td>
<td>53.85</td>
<td>21 22</td>
<td>50.62</td>
<td>09.07</td>
</tr>
<tr>
<td>Germany</td>
<td>the ducat</td>
<td>53.85</td>
<td>21 22</td>
<td>50.62</td>
<td>09.07</td>
</tr>
<tr>
<td>Hamburgh</td>
<td>the ducat</td>
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<td>21 22</td>
<td>17.32</td>
<td>06.31</td>
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<tr>
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<td>the georges</td>
<td>50.00</td>
<td>21 22</td>
<td>47.80</td>
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<tr>
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<td>the gold gulden</td>
<td>153.54</td>
<td>22</td>
<td>147.74</td>
<td>14.62</td>
</tr>
<tr>
<td></td>
<td>the ryer</td>
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<td>21 22</td>
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<td>09.07</td>
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<td>50.62</td>
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</tr>
<tr>
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<td>the star pagoda</td>
<td>54.75</td>
<td>21 22</td>
<td>52.75</td>
<td>07.31</td>
</tr>
<tr>
<td>Naples</td>
<td>the onza</td>
<td>68.10</td>
<td>21 22</td>
<td>65.70</td>
<td>08.79</td>
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<tr>
<td>Piedmont</td>
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<td>51.72</td>
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<td>139.68</td>
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<td>21 22</td>
<td>217.39</td>
<td>09.59</td>
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<td>166</td>
<td>21 22</td>
<td>151.30</td>
<td>10.35</td>
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<td>21 22</td>
<td>99.37</td>
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<td>21 22</td>
<td>50.62</td>
<td>09.07</td>
</tr>
<tr>
<td>Saxon</td>
<td>the august</td>
<td>102</td>
<td>21 22</td>
<td>94.08</td>
<td>08.57</td>
</tr>
<tr>
<td>Siam</td>
<td>the tical</td>
<td>281.88</td>
<td>19 22</td>
<td>244.13</td>
<td>08.08</td>
</tr>
<tr>
<td>Sicily</td>
<td>the onza</td>
<td>67.94</td>
<td>21 22</td>
<td>65.57</td>
<td>10.17</td>
</tr>
<tr>
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<td>the doubloon before 1772</td>
<td>416.05</td>
<td>21 22</td>
<td>388.84</td>
<td>08.31</td>
</tr>
<tr>
<td>Spain</td>
<td>the doubloon of 1772</td>
<td>416.05</td>
<td>21 22</td>
<td>388.84</td>
<td>08.31</td>
</tr>
<tr>
<td>Spain</td>
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<td>21 22</td>
<td>388.84</td>
<td>08.31</td>
</tr>
<tr>
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<td>the adolphus</td>
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<td>19 22</td>
<td>95.77</td>
<td>11.75</td>
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<tr>
<td>Tuscany</td>
<td>the ruopno</td>
<td>101.33</td>
<td>19 22</td>
<td>94.77</td>
<td>12.45</td>
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<tr>
<td>United States</td>
<td>the eagle</td>
<td>268.06</td>
<td>21 22</td>
<td>245.27</td>
<td>07.05</td>
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<tr>
<td>Venice</td>
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<td>21 22</td>
<td>50.62</td>
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<tr>
<td>Wittemberg</td>
<td>the car</td>
<td>130.32</td>
<td>19 22</td>
<td>117.49</td>
<td>08.31</td>
</tr>
</tbody>
</table>

In the first column of this table is shown the weight of each foreign coin in grains troy-weight; in the second column, the degree of the fineness in carats and grains of a carat; in the third column, the contents of fine gold in grains troy-weight; and in the fourth, the intrinsic value expressed in shillings and pence sterling.

The following example will be of guidance to ascertain the value of foreign coin in other money also foreign.

**Example**

It is required to express the value of a louis d'or of France coined since 1785 in the money of Portugal.

As it is seen by the prefixed table that the louis of 24 livres tournois contains 166.37 grains of fine gold, and that the joanese of 6400 reis contains 203.39 grains of fine gold, I state the following equation:

\[ \text{louis} = x \]

\[ 1 \text{louis} = 166.37 \text{grains} \]

\[ 203.39 \text{grains} = 1 \text{joanese} \]

\[ 1 \text{joanese} = 6400 \text{reis} \]

Result 3347 reis.
<table>
<thead>
<tr>
<th>Country</th>
<th>Coin Type</th>
<th>Weight (Grs. 100)</th>
<th>Fineness (Oz. dwt.)</th>
<th>Pure Contents (Grs. 100)</th>
<th>Value (£ 100)</th>
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<tbody>
<tr>
<td>Aix la Chapelle</td>
<td>the reichsthaler</td>
<td>95.86</td>
<td>7.1</td>
<td>56.21</td>
<td>7.65</td>
</tr>
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<td>the lira</td>
<td>74.17</td>
<td>10.1</td>
<td>56.84</td>
<td>7.93</td>
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<td>the reichsthaler</td>
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<td>382.38</td>
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<td>10</td>
<td>388.89</td>
<td>48.59</td>
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<tr>
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<td>the rupee</td>
<td>178.31</td>
<td>11.5</td>
<td>174.56</td>
<td>24.38</td>
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<td>the skodeler</td>
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<td>333.04</td>
<td>54.67</td>
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<tr>
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<td>the krohn</td>
<td>345.08</td>
<td>9</td>
<td>230.77</td>
<td>32.53</td>
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<td>11.3</td>
<td>65.04</td>
<td>12.9</td>
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<td>10.1</td>
<td>449.04</td>
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<td>10.13</td>
<td>400.87</td>
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<td>53.38</td>
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<td>the sekota</td>
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<td>180.49</td>
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<td>10.13</td>
<td>409.47</td>
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<td>379.03</td>
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<td>8.18</td>
<td>312.68</td>
<td>41.79</td>
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<td>the gold florin</td>
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<td>365.04</td>
<td>26.26</td>
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<td>10.1</td>
<td>149.40</td>
<td>20.73</td>
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<td>Madagascar</td>
<td>the rupey</td>
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<td>11.0</td>
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<td>24.61</td>
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<td>11.1</td>
<td>457.17</td>
<td>65.23</td>
</tr>
<tr>
<td>Pondicherry</td>
<td>the rixdollar</td>
<td>499.88</td>
<td>10.13</td>
<td>459.96</td>
<td>65.44</td>
</tr>
<tr>
<td>Poland</td>
<td>the zympfe</td>
<td>177.27</td>
<td>11.1</td>
<td>160.03</td>
<td>23.83</td>
</tr>
<tr>
<td>Portugal</td>
<td>the cruzade</td>
<td>463.65</td>
<td>10.1</td>
<td>418.64</td>
<td>57.91</td>
</tr>
<tr>
<td>Prussia</td>
<td>the current rixdollar</td>
<td>468.70</td>
<td>10.13</td>
<td>418.04</td>
<td>57.91</td>
</tr>
<tr>
<td>Rome</td>
<td>the ducato</td>
<td>136.54</td>
<td>11.5</td>
<td>119.67</td>
<td>16.71</td>
</tr>
<tr>
<td>Russia</td>
<td>the ruble of 1755</td>
<td>402.70</td>
<td>9</td>
<td>318.85</td>
<td>44.52</td>
</tr>
<tr>
<td>Russia</td>
<td>the ruble of 1763</td>
<td>369.88</td>
<td>9</td>
<td>299.74</td>
<td>39.78</td>
</tr>
<tr>
<td>Russia</td>
<td>the ruble of 1801</td>
<td>77.48</td>
<td>8</td>
<td>65.48</td>
<td>22.38</td>
</tr>
<tr>
<td>Saxony</td>
<td>the old reichshaler</td>
<td>411.66</td>
<td>9</td>
<td>319.09</td>
<td>43.41</td>
</tr>
<tr>
<td>Saxony</td>
<td>the new reichshaler</td>
<td>343.17</td>
<td>10.1</td>
<td>309.03</td>
<td>45.97</td>
</tr>
<tr>
<td>Saxony</td>
<td>the zympfe</td>
<td>430.97</td>
<td>10.1</td>
<td>368.87</td>
<td>51.08</td>
</tr>
<tr>
<td>Spain</td>
<td>the current rixdollar</td>
<td>432.93</td>
<td>10.1</td>
<td>369.78</td>
<td>56.38</td>
</tr>
<tr>
<td>Spain</td>
<td>the rixdollar albertus</td>
<td>212.14</td>
<td>11.5</td>
<td>190.35</td>
<td>29.98</td>
</tr>
<tr>
<td>Spain</td>
<td>the new reichshaler</td>
<td>416.40</td>
<td>10.13</td>
<td>373.03</td>
<td>54.39</td>
</tr>
<tr>
<td>Sweden</td>
<td>the rixdollar since 1772</td>
<td>451.59</td>
<td>10.13</td>
<td>396.69</td>
<td>55.32</td>
</tr>
</tbody>
</table>
Silver Coins.

<table>
<thead>
<tr>
<th>Country</th>
<th>Coin Type</th>
<th>Weight (Grs.)</th>
<th>Fineness (Oz. dwt. Grs.)</th>
<th>Pure Contents</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>the ducatoon</td>
<td>484</td>
<td>11</td>
<td>113</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>the carolin</td>
<td>165,51</td>
<td>8</td>
<td>113,47</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>the ten silver</td>
<td>165,50</td>
<td>8</td>
<td>113,46</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>piece of the</td>
<td>422,75</td>
<td>11</td>
<td>113,10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>francisco</td>
<td>440</td>
<td>11</td>
<td>113,18</td>
<td>15</td>
</tr>
<tr>
<td>Tuscany</td>
<td>the lentornina</td>
<td>404</td>
<td>11</td>
<td>113,14</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>the livernina</td>
<td>409,79</td>
<td>11</td>
<td>113,13</td>
<td>15</td>
</tr>
<tr>
<td>United States</td>
<td>the  ducat</td>
<td>310,83</td>
<td>9</td>
<td>113,17</td>
<td>15</td>
</tr>
<tr>
<td>Venice</td>
<td>the ducat</td>
<td>486,34</td>
<td>11</td>
<td>113,19</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>the scudo</td>
<td>433,17</td>
<td>11</td>
<td>113,15</td>
<td>15</td>
</tr>
</tbody>
</table>

In the first column of this table is shown the weight of each foreign coin in grains Troy weight; in the second column, the degree of fineness in carats and grains of a carat; in the third column, the contents of fine silver in grains Troy weight; and in the fourth, the intrinsic value expressed in pence sterling.

The following example will show in what manner the value of a foreign coin in other money also foreign may be ascertained.

Example. It is required to express the value of a Spanish hard dollar in the Money of France. As it is seen by the prefixed table that the hard dollar contains 372,03 grains of fine silver, and that the piece of 5 francs contains 347,52 grains of fine silver, I state the following equation:

\[ \text{1 hard dol.} = 372,03 \text{ grains} \]

\[ \text{5 francs} = 5 \text{ ducat} \]

Result 5 francs 37 cents.

\[ \text{MONIES}, \text{ in a military sense, are such sums as are issued for public service, and are more specifically distinguished by the appellation of army estimates.} \]

The following sums show the amount of the British military establishment on the 17th of February, 1801: 1,615,878 for guards and carrisons. 1,733,772 for maintenance of troops abroad. 17,127 for land forces for Ireland. 355,085 for recruiting in Great Britain. 319,472 for dittos in Ireland. 23,573 for generals and staff officers in Great Britain. 48,197 for dittos in Ireland. 973,419 for militia in Great Britain. 1,238,000 for dittos in Ireland. 57,000 for allowances in Great Britain. 34,451 for contingencies in Ireland. 32,579 for supernumerary officers. 11,681 for officers' clerks, &c. in Great Britain. 6,416 for dittos in Ireland. 253,000 for increased rates for subsistence to innkeepers in Great Britain.

110,384 for allowance for beer. 129,772 for reduced officers in Great Britain. 146,382 for the in and out pensioners of Chelsea. 33,394 for foreign troops in British pay. 45,000 for the augmentation of 18,000 in Great Britain. 21,321 for contingencies in Ireland. 1,533,750 for the ordnance of the current year. 58,756 for dittos not provided for in 1799. Regimenal Money. All sums issued to paymasters for the subsistence, &c. of the men belonging to a regiment, are so called; for the regular distribution of which the paymasters and captains of companies are responsible. La compabilité among the French, corresponds with this explanation.

Joyo-Money. The money which is paid for recruiting the army, is so called. Smart Money. The money which was paid by the person who has taken the enlisting money, in order to get released from an engagement entered into previous to a regular enlistment.

Bounty-Money. The money which is paid for recruiting the army, is so called. See Recruiting. MONOMACHY, (Monomachy, Fr.) a single combat, or the fighting of two hand to hand. It is derived from the Greek. A duel may be properly called Monomachy.

MONSON or MOUSON, Fr. a word derived from the Arabic, signifying the wind of any particular season, or one that blows regularly. See Monsoons.

MONSOONS. In India the year is divided into two seasons. From the month of October to March, the winds blow from the north-western, and during the rest of the year from the south-eastern points of the compass: these seasons are by mariners called monsoons; the
change from the one to the other is generally preceded by an interval of about twenty days, in which calms, or light and unsteady winds may prevail; the setting in of the northern monsoons generally falls out some time in the month of September, as that of the southern in the month of April. On the coast of Coromandel the northern monsoons sometimes begins with a violent tempest or hurricane; and if the monsoon sets in with miskation, it is often productive of tempestuous weather at different intervals, until the middle of December, and sometimes later; so that it is held dangerous for any vessels to remain on the coast after the 15th of October, or to return to it before the 20th of December.

MONTAGNES, Fr. Hills, mountains, &c. In a military sense, the term is particularly applicable to that species of warfare which is carried on in a mountainous and intersected country. We have already given a general outline of this species of warfare under the head Guerre de Montagne; nevertheless the following observations may not appear superfluous or irrelevant in this place. The chevalier Folard has written largely, and with no inconsiderable degree of method, on that part of a war among hills, &c. where an army might be exposed to the risk of being surrounded, or shut up. He observes, that a body of men may be drawn into snare by the well-concerted movements of an active and active enemy, most especially in a country which is intersected by rivers, and occasionally broken with hills and clefts. Although disasters of this sort are manifest proofs of a want of ability in the person who holds the chief command, they become infinitely more disgraceful when a general runs hasty into a snare, as Euripides did, without having sufficient courage to attempt a daring enterprise; for it certainly remains with ourselves to determine, whether we choose to move into an impracticable country; and it equally rests with us to avoid stratagems and snares.

All this, however, depends upon a knowledge of the country into which the war is carried; and as it is impossible to be in possession of the requisite information without some extraneous means, every general ought to lay it down as a maxim, not to advance into a mountainous country without having a good number of intelligent and faithful guides. These, in addition to some able topographers, will prevent the possibility of being surprised, and make him thoroughly master of all the passes, &c.

It is not, however, sufficient to be in possession of the heights that immediately command a valley into which an army has moved; in proportion as you advance, you must be certain, that the enemy who retreats before, is not insensibly winding round a second range of hills, to get upon your flanks, or ultimately fall upon your rear.

It moreover frequently happens, that some valleys have not any outlet, and that others become so narrow, that an army is under the necessity of marching by single file, in order to reach a more open place of ground, or to get to some important pass for the purpose of interrupting or obstructing the march of an enemy.

When it is found necessary to retreat, or to march over a country, as Hannibal did over the Alps, it is of little consequence what steps or measures you take, with regard to those parts which you are abandoning; but when you advance against an enemy, and are determined to dispute his march through a valley or hollow way, you must adopt every precaution to secure your rear and flanks, last, as we have already observed, your antagonist should take advantage of the various passes and intricate bye-ways, which always exist in a mountainous country; and it must always be remembered, that many coups de main, and daring enterprises, may be undertaken by four or five hundred active partizans, which an army would find impracticable.

An able general cannot have a better, or more favorable field to exercise his military genius in, than that which is presented by a mountainous country. All the chicanes and stratagems of war may be resorted to; and however weak an army might be, yet such are the manifold resources of this peculiar kind of contest, that there is scarcely any thing which may not be attempted, provided the officer, who commands, has a thorough knowledge of the country, is fertile in expedients, and has a calm determined mind. Many instances might be adduced to illustrate these observations; we shall be satisfied with stating, that the prince of Conti, in the campaign of 1743, which he so ably conducted, over a considerable part of his reputation to the scope afforded to his talents by the locality of Piedmont. This country, indeed, as well as Switzerland, seems to have been cut out as the peculiar theatre of great military talents. But neither the prince of Conti, nor the first consul of France, Bonaparte, would have succeeded in the brilliant manner, which they most unquestionably have done, had not the science of topography accorded the natural advantages of that mountainous part of Europe. Manceaux, Lescure, Ney, Lefebvre, Soult, and Macdonald have immortalized themselves in mountain warfare.

MONTA, Fr. This word is used among the French to express what we mean by carry; as, un vaisseau monté de cinquante pièces de canon; a ship that carries fifty guns, or a fifty gun ship.

MONTA in trencher, Fr. See To Mount the Trenches.

MONTES ou FALCINES, Fr. To embark on board a ship.
MONTHLY Abstract. See PAY.
MONTHLY Return. See Report.
MONTHLY Inspection. See Report.

Monte. Fr. This word likewise means to rise from one rank to another, in the way of promotion, as from cornet or ensign to become lieutenant, from lieutenant to become captain, or from having the command of the youngest company to be promoted to that of the eldest.

MONTHLY, considered as a military period, in the British service, consists alternately of 30 and 31 days, commencing on the 24th, and ending on the 24th day (inclusive) of each month, properly so called.

MONTFORT ou Poste des invulnérables. Fr. an expression which is derived from Pagnote, a coward, a poltroon, and signifies any eminence or place from whence the operations of a siege, or the actual conflict of two armies, may be seen without personal danger to the curious observer. It is a term of reproach, C'est un Général qui voit le combat du Mont-Pagnote; he is one of those generals that look on whilst others fight. During the American war a particular body of refugees or tories who seemed to side with the British, were called invulnerable.

Mont-Pagnote, in fortification, an eminence where persons post themselves out of the reach of cannon, to see a camp, siege, battle, &c. without being exposed to danger. It is also called the post of the invulnerable.

MONTRE, Fr. The review, or muster, of the men. Le régiment a fait montre devant le commissaire. The regiment has passed muster before the commissary. Les officiers avertissent leur valet dans les rangs, et ils font passer à la montre. The officers put their servants in the ranks, and made them pass muster.

Montre likewise signified, in the old French service, the money which was paid to soldiers every month, when they passed muster. Il a reçu sa montre; he has received his monthly pay.

Montevrain, Fr. The complement of men, and number of cannon, on board a French ship of war.

Montes d'un Fusil, d'un pistolet, Fr. the marks of instruction, which is exhibited to perpetuate the memory of some illustrious character.

Montigia, Ind. Soldiers employed to collect the revenue.

Moqua, Muck, a frenzical riot of some mohomedans, who have returned from Mecca, against those who have not professed mohomedanism. This horrid custom has been lately practiced by the Malays, both at the island of Ceylon, and at the Cape of Good Hope. In the latter place indeed, the fanaticism of one of these mohomedan_rabble went so far, that he stabbed a soldier who stood sentinel at the governor's gate. His intention was to have destroyed the governor. He that runs the mucka, or muck, gets intoxicated with bany, or opium; loosens his hair, (which is generally bound up under a handkerchief) then takes a dagger (called a krisse) in his hand, whose blade is usually half poisoned, and in the handle of which there is some of his mother's father's hair preserved, and running about the streets kills all those he meets, who are not mohomedans, till he is killed himself; pretending to believe, that he serves God and Mohammed by destroying their enemies. When one of these madmen is slain, all the mohomedan rabble run to him, and bury him like a saint, every one contributing his mite towards making a noble burial.

Moraille, Fr. Barnacles. An instrument made commonly of iron, to hold a horse by the nose, to hinder him from struggling when an incision is made.

Le MORAL. Fr. This word is frequently used among the French, as a substantive of the masculine gender, to express the moral condition of man. It likewise means the prepossession or assurance which we feel in conscious superiority, viz. Quand les Anglais se battent sur mer, ils ont le moral pour eux, les Français l'ont sur terre.

MORASS, in military drawings, denotes moist, marshy, or fenny low grounds, on which waters are lodged.

MORATTUHS, Maharrattas, a considerable Hindoo tribe in Hindostan. Their army is chiefly composed of cavalry, and they excel in the management of their horses. The weapon principally used by them in war is a sabre, extremely well tempered, and carefully chosen. Their dress, when accoutred for action, consists of a quilted jacket of cotton cloth, which descends half way down their thighs, and of a thin linen vest, which is tied close to the body, and is always worn under the jacket. They wear upon their head a broad turban, which is made to reach the shoulders, for the double purpose of covering the neck from the heat of the sun, and of shielding it against the enemy's sabre. Their thighs and legs are covered with a loose kind of trousers, or cotton over loose. They are extremely temperate, and pay the most minute attention to their horses.

It is now more than a century that the Maharrattas first made a figure, as the most enterprising soldiers of Hindostan; as the only nation of Indians, which seems to make war an occupation by choice; for the Rajpoos are Hindu,
soldiers by birth. The strength of their armies consist in their numerous cavalry, which is more capable of resisting fatigue than any in India; large bodies of them having been known to march fifty miles in a day. They avoid general engagements, and seem to have no other idea in making war, but that of doing as much mischief as possible to the enemy's country.

MOREAU, Fr. A species of bag which the drivers of mules use to carry their hay. It is likewise the name of a celebrated French general, who by his able retreat out of Germany, during the most disastrous period of the French revolution, acquired a reputation, as a general, superior to Xenophon.

MORGAY, a dally weapon.

MORTIER, fr. See Mortar.

MORION, Fr. Dames sur le morion. This was a species of punishment which was formerly inflicted upon French soldiers for crimes that were not capital. They were shut up in a guard-house, and received a certain number of strokes with a halberd. The goatelope was substituted in its stead; but neither one or the other are practised in the present French army.

MORISON. See Helmet, Casque, &c.

MORT' d'Eau, Fr. Low water.

MORTARS, are a kind of short cannon, of a large bore, with chambers; they are made of stone, brass, or iron. Their use is to throw hollow shells, filled with powder; which, falling on any building, or into the works of a fortification, burst, and their fragments destroy every thing within reach. Carcasses are also thrown out of them. These are a sort of shells, with 5 holes, filled with pitch and other combustibles, in order to set buildings on fire; and sometimes haversacks full of stones, the size of a man's fist, are thrown out of them upon an enemy, placed in the covert-way during a siege. The very ingenious general D'Isburgs contrived to throw boats, filled with grape-shot, containing in each bag, from 400 to 600 shot of different dimensions, out of mortars; the effect of which is extremely awful and tremendous to troops forming the line of battle, passing a defile, or landing, &c. pouring down shot, not unlike a shower of hail, on a circumference of above 300 feet. They are distinguished chiefly by the diameter of the bore. For example, a 13-inch mortar is that, the diameter of whose bore is 13 inches. There are some of 10 and 9-inch diameters; and some of a small sort, as coffins of 4.8 inches, and royals of 3.8 inches.

**Weight and Dimensions of English Mortars.**

<table>
<thead>
<tr>
<th>Range at 45°</th>
<th>Yards</th>
<th>8 Inch.</th>
<th>10 Inch, short Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powder contained in Chamber</td>
<td>Lb.</td>
<td>oz.</td>
<td>Lb.</td>
</tr>
<tr>
<td>Sea</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Land</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sea</td>
<td>9</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Land</td>
<td>9</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sea</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Land</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

* See the word Chambers, for experiments on the best form.
### French Mortars, in their own Weights and Measures

<table>
<thead>
<tr>
<th>12 Inches</th>
<th>lbs.</th>
<th>13 Inch.</th>
<th>10 Inch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 for long Ranges</td>
<td>2000</td>
<td>3.7</td>
<td>2400</td>
</tr>
<tr>
<td>10 — short do.</td>
<td>1250</td>
<td>4</td>
<td>2200</td>
</tr>
<tr>
<td>8</td>
<td>995</td>
<td>4.8</td>
<td>2160</td>
</tr>
<tr>
<td>6</td>
<td>790</td>
<td>2.8</td>
<td>1800</td>
</tr>
<tr>
<td>4</td>
<td>595</td>
<td>2</td>
<td>1400</td>
</tr>
<tr>
<td>2</td>
<td>390</td>
<td>2</td>
<td>700</td>
</tr>
<tr>
<td>Stone Mortars.*</td>
<td>1100</td>
<td>3</td>
<td>2700</td>
</tr>
<tr>
<td>10 —</td>
<td>2000</td>
<td>6</td>
<td>2800</td>
</tr>
<tr>
<td>8 — Gomers</td>
<td>600</td>
<td>2</td>
<td>1400</td>
</tr>
</tbody>
</table>

* Stone Mortars should not be fired at a greater distance than 250 yards.

---

### Ranges with a 10 Inch Sea Mortar, at 45 Degrees

<table>
<thead>
<tr>
<th>Weight of Weight</th>
<th>Elevetion</th>
<th>Flight</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>lbs. oz. Sec.</td>
<td>lbs. oz. Sec.</td>
<td>Yards</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>14</td>
<td>11</td>
<td>680</td>
</tr>
<tr>
<td>22</td>
<td>19</td>
<td>8</td>
<td>1380</td>
</tr>
<tr>
<td>24</td>
<td>13</td>
<td>12</td>
<td>2400</td>
</tr>
<tr>
<td>26</td>
<td>18</td>
<td>15</td>
<td>3500</td>
</tr>
<tr>
<td>27</td>
<td>21</td>
<td>18</td>
<td>4500</td>
</tr>
<tr>
<td>29</td>
<td>24</td>
<td>21</td>
<td>5500</td>
</tr>
<tr>
<td>30</td>
<td>27</td>
<td>24</td>
<td>6500</td>
</tr>
<tr>
<td>32</td>
<td>30</td>
<td>27</td>
<td>7500</td>
</tr>
<tr>
<td>34</td>
<td>33</td>
<td>30</td>
<td>8500</td>
</tr>
</tbody>
</table>

---

### Medium Mortar, at 45 Degrees

<table>
<thead>
<tr>
<th>8 Inch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>lbs. oz. Sec.</td>
</tr>
<tr>
<td>17</td>
</tr>
<tr>
<td>18</td>
</tr>
<tr>
<td>19</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>24</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>26</td>
</tr>
<tr>
<td>27</td>
</tr>
<tr>
<td>28</td>
</tr>
<tr>
<td>29</td>
</tr>
<tr>
<td>30</td>
</tr>
<tr>
<td>31</td>
</tr>
<tr>
<td>32</td>
</tr>
<tr>
<td>33</td>
</tr>
<tr>
<td>34</td>
</tr>
<tr>
<td>35</td>
</tr>
</tbody>
</table>

---

### Medium Mortar with Land Service Iron

<table>
<thead>
<tr>
<th>11 Inch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>lbs. oz. Sec.</td>
</tr>
<tr>
<td>17</td>
</tr>
<tr>
<td>18</td>
</tr>
<tr>
<td>19</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>24</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>26</td>
</tr>
<tr>
<td>27</td>
</tr>
<tr>
<td>28</td>
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Medium Ranges with Brass Mortars, at 45 Degrees. 1780.

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<tr>
<th>13 Inch.</th>
<th>10 Inch.</th>
<th>8 Inch.</th>
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<tr>
<td>Ch'ge Range</td>
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* For the Ranges with the 5 1/2 inch Brass, see the Iron Mortars.

Medium Ranges with the above Mortars, at 45 Degrees.

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All English mortars are erroneously fixt to an angle of 45 degrees, and custom has prevailed to lash them strongly with ropes to that elevation. In a siege, shells should never be thrown with an angle of 45 degrees, excepting in one case only; that is, when the battery is so far off that they cannot otherwise reach the works; for when shells are thrown out of the trenches into the works of a fortification, or from the town into the trenches, they should have as little elevation as possible, in order to roll along and not bury themselves; whereby the injury they do, and the terror they cause to the troops, is much greater than if they sink in the ground. On the contrary, when shells are thrown upon magazines, or any other buildings, with an intention to destroy them, the mortars should be elevated as high as possible, that the shells may acquire a greater force in their fall, and consequently do more execution. The British are the only nation that fix mortars to an elevation of 45 degrees, the proper range is from 30 1/2 to 35 degrees.

The use of mortars is thought to be older than that of cannon; for they were employed in the wars of Italy to throw balls of red-hot iron, and stones, long before the invention of shells. It is generally believed, that the Germans were the first inventors, and that they were actually used at the siege of Naples, in the reign of Charles the VIII., in 1494. History informs us, with more certainty, that shells were thrown out of mortars at the siege of Waclentnord, in Guelderland, in 1585, by the earl of Mansfield. Shells were first invented by a citizen of Venlo, who, on a festival, celebrated in honor of the duke of Cleves, threw a certain number, one of which fell on a house, and set fire to it, by which misfortune the greatest part of the city was reduced to ashes.

Mr. Maler, an English engineer, first taught the French the art of throwing shells, which they practised at the siege of Motte, in 1634. The method of throwing red-hot balls out of mortars, was first
Land-Mortars, are those used in sieges, and of late in battles, mounted on beds; and both mortar and bed are transported on block-carriages. There is also a kind of hand-mortars, mounted on travelling carriages, invented by count Lippe Buckeburg, which may be elevated to any degree; whereas the British, as we have already stated, are fixed to an angle of 45 degrees, and are firmly lashed with ropes.

Partridge Mortars, is a common mortar, surrounded by 13 other little mortars, bored round its circumference in the body of its metal. The centre one is bored with a shell, and the others with grenades. The vent of the large mortar being fired, communicates its fire to the small one, so that both shell and grenades go off at once. The French used them in the war of 1701, and more especially at the siege of Lille, in 1705, and at the defence of Bouchain in 1702.

Hand-Mortars, were frequently used before the invention of cannons. They were fixed at the end of a staff of 4-3 feet long, the other end being shod with iron to stick in the ground; while the bombardier, with one hand, elevated it at pleasure, he with the other hand fired.

Firelock Mortars, Bombards, are small mortars, fixed at the end of a fire-lock; they are loaded as all common firelocks are; and the grenade, placed in the mortar at the end of the barrel, is discharged by a flint-lock, and, to prevent the recoil hurting the bombardier, the bombard rests on a kind of halberd, made for that purpose. They were first invented by Major-General Sicbach, a German, about the year 1710.

New of the several parts of a Mortar.

Grand divisions exterior, viz.—The whole length of the mortar, muzzle, chaise, reinforce, breech, trunnions.

Small divisions exterior. The vent, defining, vent astragal and fillets, breech ring and ogee, reinforce ring and ogees, reinforce astragal and fillets, muzzle astragal and fillets, muzzle ring and ogees, muzzle moulding, shoulders.

Interior parts. Chamber, bore, mouth, vent.

Chamber in Mortars, is the place where the powder is lodged. There are different sorts, and made variously by different nations. The Spaniards use chiefly the spheric; the French, Germand, and Dutch, the conic, cylindrical, and the concave; the French and English, the parabolic; and the English make them in the form of a frustum of a cone. Each nation has its reasons, good or bad, to prefer their make before that of others; among which the English say the concave and cylindrical chambers are the best; the French say the frustum of a cone.

Sea-Mortars, are those which are fixed in the bomb-vessels, or bombarding places by sea; they are made somewhat longer, and much heavier than the land-mortars.

Land-Mortar-Beds, are made of very solid timber, and placed upon very strong timber frames, fixed in the bomb-ketch; to which a pintle is attached in such a manner, that the bed may turn round. The fore part of these beds is an arc of a circle, described from the same centre as the pintle-hole. Land-mortar-beds are now made of cast iron.

Stone Mortars, serve to throw stones into the enemy's works, when near at hand; such as from the town these trenches in the covert-way, or upon the glacis; and from these trenches into the town. The bore is terminated by two quadrants of a circle, terminated by the reinforce and lines drawn from the ends of the cylinder, made to lodge the portions parallel to the axis of the mortar.

The bottom of the conic chamber is terminated by an arc of 60 degrees, and the round part of the outside is a semi-circle.

Chambers in Mortars, are of different sorts and dimensions. Mr. Bellidor mentions four; namely, the cylindrical, the spheric, the conic, and the concave or bottled; to which a fifth may be added, the parabolic, invented by count de Lippe Buckeburg.

Cylindrical chambers. Experience demonstrates, that concave chambers will throw the shell farthest of any with the same charge, yet, in this case, where but little powder is required, in the entrance would become too narrow, and consequently inconvenient to clean; whereas, when they are cylindrical, the difference between the advantages of the one and the other will be but little, and not attended with any inconveniences.

Conic chambers are generally made in a circular form at the bottom, so that the sides produced, meet the extremities of the diameter at the mouth.

Spheric chambers, are much inferior to the cylindrical or concave, for it is well known by the properties of geometry, that when a cylinder and a frustum of a cone occupy equal spaces, the surface of the cone is always greater than that of the cylinder.

Hence, if the entrance of these chambers be not made very narrow, contrary to practice, as demonstrated by Mr. Muller, in his second edition of Artillery, page 36, of the introduction, and the examples that follow, we conclude that the concave and conic chambers are the worst.

Concave chambers. The advantage of these kinds of chambers consist in this, that their entrance may be made narrower than that of any other form; and practice has sufficiently proved it. Yet, when the entrance is so small as not to
admit a man’s hand, they are not easily 
removed: for which reason it is supposed 
that all 13 and 10-inch mortars should 
have concave chambers, and the others 
like marble.

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Motion, &c. Motion is the particular
adjunct of the manual, and movement
that of evolution. The French make the
same distinction with respect to manu-
ment.
Motion, movement, Fr. generally so
called, a continual and successive change
de place.
Motion, equal or uniform, (movement
gal, en uniforme) that by which a body
moves over equal spaces in equal times;
such are the motions of celestial bodies.
Motion absolute, (movement absolu,
Fr.) is a mutation or change of absolute
space, and its celerity is measured accord-
ing to absolute space.
Motion relative, (movement relatif,
Fr.) is a change or mutation of relative
place, and its celerity is measured accord-
ing to relative space.
Motion equally accelerated, (move-
ment uniformement accéléré, Fr.) is such
whose velocity equally increases in equal
times.
Motion, equally retarded, (move-
ment uniformement retardé) is such whose
velocity equally decreases in equal times,
until the body comes to rest.

Motions of an army, (mouvements d'une
armée, Fr.) are the various changes which
it undergoes in marching from one place
to another; these are more generally un-
derstood by the word movement.
Motions of the firelock during the manual
and platoon exercise. Motion in this sense
is expressed by terms among the French.
These consist of those prescribed methods
which have been explained in the man-
ual.
The new mode of carrying, (which is
with nearly extended arm) is certainly less
fatiguing than supporting arms; since the
former leaves the circulation of the blood
free, and the latter binds the soldier's arm
at the elbow. The French allow great
latitude in the carrying of the firelock,
considered as the free translation of the
French service. The parole and counter-
sign only are practised, and their distinct
import seems so little understood, that we
shall not hesitate to give the whole article
from the French.
The MOTS d'ordre et de ralliement, Fr.,
MOTS d'ordre et de ralliement, fr. In
a recent publication, written by Paul
Thibault, adjutant-general on the French
staff, the following explanation is given of
paroles and countersigns, which may be
considered as the free translation of the
French.

To watch the motions of an enemy,
guerir un ennemi, Fr.) To keep a good
look out by means of a regular commu-
nication between head-quarters, and the
outposts of your army. On a large scale,
the business of an army of observation
is chiefly confined to this species of service.
On a more limited one, this duty is fre-
quently entrusted to partisans and light
troops.

Motion of a bomb or ball. The prog-
ress which a bomb or ball makes through
the air may be said to consist of three
sorts, after it has been delivered out of
the mortar, or emitted from a gun ensem-
ble. These are—
The violent motion, or first expan-
sion, when the powder has worked its ef-
fect upon the ball, so far as the bomb or ball
may be supposed to move in a right line.
The mixed motion, or yielding im-
pulse, when the natural weight of the
bomb or ball begins to overcome the force
which was given by the gunpowder.
The natural motion, or exhaustion
of the first impulse. This occurs when the
bomb or ball is falling to the ground.

To motion a thing, to propose it in a
military or civil meeting.
MOTION, fr. This word has been
adopted by the French to convey the
same meaning that it does in English,
namely, a proposition; hence appeler la
motion dans une assemblée ; to support a
motion in a public assembly or meeting.
Délérer sur la motion, to deliberate upo11
the motion. Retirer sa motion, to with-
draw one's motion.

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On a more limited one, this duty is fre-
quently entrusted to partisans and light
troops.
The mot d'ordre, or parole, must never be given to countries by name. See that are stated at some distance from circumstances so peculiarly urgent, that the be confided beyond officers and non-commissioned officers; the mot de ralliement may in some cases be given to entrées that are stationed at some distance from the outposts; but these should invariably consist of old soldiers, whose fidelity and courage can be depended on.

The mot d'ordre, or parole, as well as the mot de ralliement, is always given out from head quarters; nor ought any general or commanding officer to take upon himself to alter either, except under circumstances so peculiarly urgent, that the good of the service would justify the change. Among these circumstances may be considered, the desertion of a sentinel from the out post, and the strong presumption, that the enemy has been made acquainted with the words, &c. Whenever this necessity occurs, all the commanding officers who have any communication with that quarter from whence the parole was issued, should instantly be made acquainted with the alteration.

With respect to the manner in which these words are to be delivered out, and the frequency of their circulation, the whole depends upon circumstances. When an army or body of troops lies at some distance from the enemy, they are usually forwarded to the different quarters, camps, or cantonments, for five, ten, or fifteen days together. When close to the enemy, they are given out, as we have already observed, every day. When there is no ground to apprehend a surprise or attack, one word will be sufficient for each day; but, in critical cases, the parole must be changed two or three times during the night. If several corps are cantonized together, the mot d'ordre, or parole, must be sent to the officer commanding in the cantonment. When the troops are encamped, it is generally sent to the commanding officer of each regiment, and seldom to the commandant of each brigade.

The mot, or parole, must always be given out during the day, except in cases of emergency, and it must never be delivered to any person, unless the individual who is entrusted with it be fully convinced, that he is authorised to receive it. It ought indeed to be given personally to him only to whom it is addressed by name. See Am. Mil. Lib. Art. Staff.

MOTTO Any sentence, either with or without a badge by which any regiment is particularly distinguished, as for example, the English dr. foot, or old 'Boys', have a griffin emblazoned as their badge, and the motto, Virtute fruenter comes. The colors taken from this regiment in the American revolution are in the war office at Washington.

MOUCHARD, Fr. a domestic spy, an informer. Among the French it more particularly means a person who is employed to watch the motions of any marked man. Creatures of this infamous, although perhaps necessary, class, were constantly attached to the police of France. The term is little known in the United States, unless it be those mouchards established in the American coffee houses, to give information to the British consuls. These gentlemen have been called, humorously enough, reporters. In a military sense, neither the term nor the practice can be properly understood; at least we should hope so, as it is beneath the high mind of a soldier to fetch and carry.

MOVEABLE PIVOT. When the pivot or any body of men describe in the wheel a smaller circle than the volterreringt, the wheel is said to be made on a moveable pivot.

MOVEMENT. Every inspecting general should notice minutely and comparatively on the performance by each battalion of the great leading points of movement. He is particularly to observe and specify: Whether or not

The original formation be according to order? The marches are made with accuracy, at the required times and length of step, and on such objects as are given. The proper distances in column and echelon are at all times preserved.

The wheelings are made just, and in the manner prescribed. The formations into line are made true, without false openings, or necessity of correction.

The officers are alert in their changes of situation, exact in their own personal movements, and loud, decisive, and distinct, in their words of command.

The march in line is uniformly steady, without floating, opening, or closing.

The march in file, close, firm, and without lengthening out.

The officers, and under officers, give the aids required of them with due quickness and precision.

Hurry and unnecessary delay, are equally avoided.

The firing the loading is quick, the levelling is just, the officers animated and exact in their commands.

MOVEMENTS. In cavalry movements the following great leading points should be attended to by every inspecting officer, independent of the circumstances which relate to the dress and general appearance of man and horse, the exercise on foot, &c. &c.

He must particularly observe and specify in his communications to the commanding officer: Whether or not

The original formation of squadrons and regiments be according to order?

The marches made with accuracy, at
the paces required, and on such objects as have been given.

The proper distance in column are at all times preserved?

The wheelings are made quick, just and in the manner prescribed?

The formations into line are made true in the intended directions, without false openings, or necessity of correction; or that corrections, when necessary are instantly made?

The changes of position are made with due celerity and justness?

The officers are alert in their changes of situation, exact in their own personal movements, and loud, decided, and distinct in their words of command?

The march in lines is uniformly steady, without opening, floating, or closing?

The flank march is compact, firm, and without improperly lengthened out?

The officers and under officers give the aids required of them with due quickness and precision?

Hurry and delay, in military movements, are two extremes which should be equally avoided.

In the wheelings the loading is quick, the levelling is just, and the officers firm in their commands:

The officers, non-commissioned officers, and men ride well, and the horses are active, vigorous, and well broken.—

Movements, in a general sense, may be considered under the following heads, viz. —

1st. Offensive movements; the great advantage which attends this movement, consists in the measure having been previously determined upon, and a consequent preparation made for rapid execution before the design is obvious. Much however, will depend, upon the justness of the distances, and of the march in column, being so taken as to allow of decisive operations. Maneuuvre will chiefly operate where an enemy is inferior in number, unacquainted in movement, weakly posted, and where the weak point is found out, and is attacked before he can move to strengthen it.

Counter-Movements of defence, are movements calculated to defeat any premeditated attack. According to the regulations they may be briefly explained by observing, that if the flank of one body be thrown forward, that of the other may by similar means be thrown back. If one body prolongs its line to outflank, the other may by the same movement maintain the situation. Whatever change of position is made by one body, the other may counteract it by a similar change. When one body is re-folded, the wing of the others may be advanced to seize an advantage.

Movements of previous formation, are military dispositions which every general must have carefully digested, before he advances upon an offensive operation. A body of troops, which has a considerable march to make previous to the attack, must always approach an enemy in one, or more columns, at open or other distances, according to circumstances. Some general knowledge of an enemy's situation, determines the manner in which he is to be approached, the composition of the columns, the flank of each which leads, and their combination in forming. A nearer view determines a perseverance in the first direction, or a change in the leading flanks, and direction of the columns, in order to form in the most speedy and advantageous manner.

Movements of attack, are made by bodies of men advancing in line or column to attack an opposing enemy. When a considerable body of troops is to act offensively, it must form itself in line or echelon within 1200 or 1500 paces of a posted enemy, unless the ground particularly favors, and cover from the fire of the artillery, in which is what chiefly prevents bodies in column from approaching nearer; and that space, under unceasing fire of their own artillery, troops in line will march over in 15 minutes.

Movements of attack, when they are made from a parallel position, must be either in line, or by a flank of the line in echelon, that flank being reinforced, and the other refused; or from a new and advantageous position taken up, and not provided against by the enemy.—From an oblique position the attack is directed against a comparatively weak point of the enemy. Attacks from the centre are more liable to be enfiladed, and are sooner guarded against than from the flank.

Movements of retreat, are combinations of columns of march, covered by positions, and a strong rear guard. Troops are occasionally taken out of the retiring columns of march, to occupy positions and heights; they remain till the rear has passed, and then become the rear guard; this they continue to be, till they find other troops in like manner posted; these last in their turn become also the rear guard, and in this way are the troops of columns in such situations relieved. A rear guard will fall back by the retreat in line—the echeloned retreat—the passage of lines—the echelon changes of position.

Movements in echelon of the line.—

Echelon, or diagonal movements, especially of a great corps, are calculated not only to disconcert an enemy, but likewise to enable the army, which adopts them, either to make a partial attack, or a gradual retreat. The attack may be formed from the centre, or from either of the wings reinforced. If successful, the divisions move up into line to improve the advantage: if repulsed, they are in a good situation to protect the retreat. In advancing, the several bodies move independently, act freely, and are ready to assist; in retiring, they fall gradually back on each other, and thereby give mutual aid and support. Echelon movements, in fact, comprise within themselves all the
essential principles of extension and compression, which are found in close or open column, with the additional advantage of being better adapted to throw a considerable line into an oblique position, of presenting a narrow front, with the means of increasing it at pleasure, exposed to the enemy, and of diminishing it with the same facility and safety.

Echelon Movements on an oblique line, are most calculated to outwit an enemy, or to preserve the points of appu of a line; possessing this advantage, such movement may not be perceptible to the enemy, as they are short and independent lines, and when seen at a distance, appear as a full line.

Echelon movements by half battalions or less, are made by their directing flank, which is always the one advanced from, or wheeled to. Echelon movements by whole battalions, are governed by their advanced serjeants. Echelon movements by several battalions are made in line, each by its own centre, and the whole by the directing flank.

Movements that are made in face of an enemy. (Movement devanc l'ennemi Fr.) There is no occasion in war which requires so much neatness, precision, and judgement, as that of retreat in the presence of an enemy. Every movement from the direct line of battle is more or less critical, but when a regiment is obliged to retire under the eye, and perhaps the fire of a pursuing foe, the utmost presence of mind is required in the officers who command, and the greatest steadiness in the men. In a situation of this sort it becomes the peculiar duty of the field officers, to see that every change of manœuvre, and every movement, be made with promptitude and accuracy. For although they be subordinate to others, and must of course, follow superior directions, yet so much of the executive duty rests with them that their character and abilities, as officers, will be more conspicuous on these occasions than in any other.

The movements of a corps which retreats, consists in retrograde marches, in line, by alternate companies, in column, by wings, or in square.

Echelon or Fan Movement. This movement is performed on the march, and must be begun at a distance behind the line, proportionate to the body which is to oblique and form. It may be applied to one battalion, but hardly to a more considerable body, which would find great difficulty in the execution. It gives a gradual increase of front during a progressive movement. With justness it can be made on a front division only, not on a central or near one; in proportion as the leading platoon shortens its step, will the one behind it, and successively each other come up into line with it. As soon as the colors of the battalion come up, they become the leading point. Although it is an operation of more difficulty, yet if the leading division continues the ordinary, and the obliquing ones take the quick step, till they successively are up with it, a battalion column which is placed behind the flank of a line, may, in this manner, during the march, and when near to the enemy, gradually lengthen out that line.

Fourth or quick Movement. This movement is frequently resorted to when the head of a considerable open column in march arrives at, or near the point from which it is to take an oblique position facing to its then rear, and at which points its third, fourth, or any other named battalion, is to be placed.

The justness of the movement depends on the points in the new direction being taken up quickly, and with precision. On the previous determination that a certain battalion, or division of a battalion, shall pass or halt at the point of intersection; and that every part of the column which is behind that battalion, shall throw itself into open column on the new line, behind the point of intersection, ready to prolong or to form the line whenever it comes to its turn.

This movement will often take place in the change of position of a second line, and is performed by all those that are behind the division, which is to stop at the point where the old and new lines intersect. And at all times when the open column changes into a direction on which it is to form, and that the division which is to be placed at the point of entry can be estimated, it much facilitates the operation to make every thing behind that division gain the new line as quick as possible, without waiting till the head of the column halts.

MOULE, Fr. A sort of stuffed glove.

It is common among the French to say, Il ne faut pas aller sans moufle; figuratively meaning, that no dangerous enterprise ought to be undertaken without sufficient force to carry it into execution.

MOUILLAGE, Fr. Anchorage.

To anchor. To anchor the ship.

MOULDS, for casting shot for guns, musquets, rifles, and pistols; the first are of iron, used by the founders, and the others by the artillery in the field, and in garrison.

Laboratory. Moulds, are made of wood, for fhaping and driving all sorts of rockets, and cartridges, &c.

MOULDING, of a gun or mortar, are all the eminent parts, as squares or rounds, which serve for ornaments such as the breech-mouldings. The rings, &c. are also called mouldings.

MOULE, Fr. See MOUILLAGE.

MOUILLAGE, Fr. See MOUILLAGE.

MOUILLAGE, Fr. See MOUILLAGE.

MOULE, Fr. See MOUILLAGE.

MOUILLAGE, Fr. See MOUILLAGE.
to troops on service. Ten of these mills may be conveniently placed on one wagon.

MOUNT, in old military books, is a term used for a bank or rampart, or other defence particularly that of earth.

MOUNTED, an alarm to mount or go upon some warlike expedition.

Half or small MOUNTING. The shirt, hose, stock, and hose, or stockings which were formerly furnished by the colonels or commandants of corps every year. This mode of distribution, which engendered a multitude of abuses, has been abolished in the British service: in lieu of which, a regulation has taken place, that they fit brevity attended to must be highly beneficial to the soldier.

In lieu of the small articles of clothing, which were annually given, by the colonels of regiments, to non-commissioned officers and private soldiers, and were called small or half mounting, two pairs of good shoes, of the value of five shillings and sixpence each, have been substituted. These shoes are to be provided in conformity to a pattern lodged at the office of the comptrollers of the accompts of the army; and patterns of the shoes are to be approved and sealed by the general officers of the clothing boards, at the same time, and in like manner, as for the clothing of one pair to be delivered out at the annual period of clothing, and the other part at the end of six months from that time; and in order to prevent the injury which the shoes might sustain, from remaining a long time in store in the East and West Indies, they are to be forwarded to corps on those stations at two different periods, instead of sending the whole quantity with the clothing.

Should the price of good shoes at any time exceed five shillings and sixpence per pair, the difference, which shall be declared by the clothing board at their first meeting on, or after the 25th of April in each year, is to be charged to the respective accounts of the non-commissioned officers and soldiers receiving them, but with respect to the 5th battalion of the 6th regiment, the difference is to be taken between four shillings and sixpence paid by the colonel, and the actual price declared as above mentioned.

The allowances, directed to be given by the colonels, in lieu of the former small articles, called half mounting, are to be regularly credited to the men, and to be expended for their use, in such articles as are suitable to the respective climates in which they are serving.

Non-commissioned officers and soldiers of infantry, dying or discharged before the completion of a full year, from the usual day of delivering the annual clothing of their regiments, have no demand whatever account thereof.

A recruit, who comes into the regiment after the proper time of the delivery of the clothing, is entitled to a pair of shoes at the next delivery of that article.

The compensation money to be given to each sergeant in the infantry in lieu of half-mouting in 14 0 10
To each corporal, drummer, &c.

To MOUNT, is a word variously made use of in military matters, as

To MOUNT a breast, to run up in quick and determined manner to any breach made in a wall, &c.

To MOUNT guard, to do duty in a town or garrison, in a camp, or at out quarters.

To MOUNT, to place on horseback, to furnish with horses; as, twelve thousand men have been well mounted, without any considerable expense to the country.

A cavalry regiment may be said to be well or ill mounted; in either of which cases, the commanding officer is generally blameable or praiseworthy.

To mount likewise signifies the act of getting on horseback, according to prescribed military rules: as, to prepare to mount, is when the left hand fits move their horses forward to the manner described under unlike your horses. The dragoons put their firelocks into the buckets, and buckle them on, doubling the strap twice round the barrel, come to the front of the horses, fasten the laths, throw them over the horses' heads with the left hand round the horses' heads, take their swords, and buckle them tight into the belt, take the bit, in their mouth, and put it into the left hand, the left foot into the stirrup, and the right hand on the cantle of the saddle, waiting for the word mount; when they spring smartly up, and look to the right of the rear. At the next signal, they must throw the leg well over the saddle, and place themselves well in the saddle, with the right hand leaning on the off shoulder. The men must be careful not to check the horses with the bits in mounting. In mounting and dismounting, the files that move forward must take care to keep their horses straight, and at the prescribed distances from each other; and when mounting, as soon as the horses are on, be the right, &c, the left files must dress well to the right, putting the horses straight, and leaving distance enough for the right files to come in.

To MOUNT a gun, is either to put the gun into its carriage, or else when in the carriage, to raise the mouth higher.

MOUNTAINS, called Great and Little St. Bernard. A part of the Alps, situated in the Glacier of Switzerland, which has been rendered famous in modern history by the passage of the French Right
under Bonaparte. The following account is extracted from a French publication, and cannot fail of being interesting to the military reader, as it is told in the plain and simple language of a soldier, who was present during the whole of this astonishing campaign. On the 15th of May, 1800, the vanguard, commanded by general Lannes, climbed up the mountain; the Austrians, although greatly inferior in number, defended themselves step by step, and never disappeared till they perceived another corps of the French army descending the mountain of the Little St. Bernard, menacing their rear, and absolutely intercepting their retreat.

The first division of the army, under general Watrin, followed the movement of the vanguard.

Under the period of time, neither artillery nor ammunition had crossed either eminence; the whole was collected at the foot of the mountain where the park of artillery was established. It appeared at first impossible to transport this heavy and embarrassing ordnance across the mountain; however it was natural to consider the question, what an army in the present day without artillery? Its necessity in this respect was manifest and imperious. The artillery corps, immediately set about dismantling the cannon, caissons, forges, &c. piece-meal. Gassendi, inspector of ordnance, gave directions for lowering a number of the trunks of trees in the same manner that wood is hollowed for troughs. The pieces of cannon were dismantled in these machines, and after having been drawn up, the most inaccessible heights, by five or six hundred men, according to the weight of metals, were left to slide down the steep declivities. The wheels were carried up on poles; and sledges made expressly for the purpose at Auxonne, conveyed the axle trees, and the empty caissons, and lastly, mules were loaded with ammunition in boxes made of fir.

The exertion of a whole battalion was requisite for the conveyance of one field-piece with its proportion of ammunition: one half of the regiment could only draw the load, while the other half was obliged to carry the knapsacks, fire-locks, cartridge boxes, canteens, kettles, and more especially five days provisions, in bread, meat, salt, and biscuit.

Such was the commencement of the march of the French army across the Alps.

**MOUNTING and Dismounting.** When the horses are to be led away, it frequently happens, especially in retreating or advancing, that it may be necessary to cover the defiling of a regiment by dismounting a squadron, or part of one, to flank the mouth of a defile. This is generally effected by lining the hedges, &c. and keeping up a hot fire on the enemy. It follows, of course, that the horses cannot be linked together, but they must be led away (in a retreat) to the most convenient spot in the defile for the men to mount again. In advancing they must be led to a spot where they will not impede the defiling of the regiment, but where they will be at hand for the dismounted parties to mount.

**Guard MOUNTING.** The hour at which any guard is mounted obtains this appellation, viz. The officers will assemble at guard mounting.

**MOUSKIR, Fr. To die.**

**Mouses d’un bel effet, Fr. A French phrase, which signifies to fall under the hands of an enemy of great skill and reputation.**

**MOUSQUET, Fr. Musquet. This word, which signifies an old weapon of offence that was formerly fired by means of a lighted match, has been variously used among the French, viz. gros musquet, a heavy musquet; un petit musquet, a short musquet; un mousquet léger, a light musquet of offence.**

**Recevoir un coup de MOUSQUET, Fr. To receive a musquet shot.**

**POUSERE LE MUSQUET DANS UNE COMPAGNIE D’INFANTERIE, Fr. To stand in the ranks as a foot soldier.**

**MOUSQUETADE, Fr. a musquet shot. Il fut tué d’une mousquetaïe; he was killed by a musquet shot.**

**MOUSQUETADE, Fr. a musquet shot. Il fut tué d’une musquetaïe; they have heard a brisk discharge of musquetry.**

**MOUSQUETAIRES, Musquetaires, Fr. A body of men so called during the old government of France. It consisted of two companies, selected from the young men of noble extraction. The first company was formed in 1622, by Louis XII, out of another company, called his Majesty’s Carabiniers. The king was captain, so that the person who commanded had only the rank of captain-lieutenant. The company remained upon this footing until 1646, when it was reduced at the instigation of cardinal Mazarine, who from personal motives, had taken a decided aversion to it. But Louis XIV. restored it in 1657, by the same appellation, and increased the establishment to 150 musquetaires. They were commanded by one captain-lieutenant, one sub-lieutenant, two ensigns, and two quarter-masters.**

**The second company, when first created, was attached to cardinal Mazarine as his personal guard; but the officers received their commissions from the king.**
An alteration took place in the management of this company in 1660, the men being incorporated with the rest of the troops that were destined for the immediate protection of his majesty's person. In consequence of this change they did duty on foot, but were again mounted, in order to accompany the expedition against Marshal, which took place that year.

Louis XIV. named himself captain of this company, as well as of the first; and from that period both companies became subject to the same regulations, with no other difference, than that of precedence as first and second company. From the year 1663, the establishment of each company was 300, exclusive of the officers. They were subsequently reduced to a lower establishment. Having originally been raised to serve on foot or horseback, they were afterwards reduced to a lower establishment. Having originally been raised to serve on foot or horseback, the mousquetaires were allowed drums and fifes when they acted as infantry troops; and trumpets when they acted as cavalry. In 1663 hautboys were substituted for fifes and trumpets. It is proposed that mounted drummers were first used among the mousquetaires du Roi. Previous to the revolution, each of these companies consisted of one captain-lieutenant, two sub-lieutenants, two ensigns, two cornets, two ait-majors, eight quarter-masters, four brigadiers, sixteen sub-brigadiers, six standard-bearers, one ensign or color-bearer, one hundred and eighty mousquetaires, six drummers, four hautboys, one commissary, one chaplain, one quarter-master sergeant, one surgeon, one apothecary, one blacksmith, one saddler, and three treasurers.

This corps was raised, not only for the purpose of attending his majesty on foot or horseback, and of going on service, as circumstances might require, but it was further intended to be a sort of military school for the French nobility. Several princes, almost all the general officers, and old marshals of France, were initiated to this establishment for the first elements of military science.

The officers, belonging to these companies, clothed, armed, and mounted themselves, without putting government to the expense of one shilling. Their uniform was a scarlet coat faced with the same, and a scarlet waistcoat. Those attached to the first company had gold buttons and button-holes, and their coats were edged with gold. Those attached to the second company, had the same ornaments in silver; their hats, in which they wore a white feather, were laced according to the same distinction, as were likewise their horse cloths and holsters. Instead of the musquet, which they formerly carried, they were latterly armed with a carbin, two pistols in the saddle-bow, and a sword calculated for infantry or cavalry duty. The brigadiers and sub-brigadiers were in the same manner. The quarter-masters, when mounted, had only a sword and two pistols, but on foot they each carried a halbert or pike, which they used as the serjeants belonging to infantry regiments were directed to do.

The cloaks and great coats of the mousquetaires were made of blue cloth lined with silver. The quarter-masters, brigadiers, and sub-brigadiers, wore the same, with more or less lace according to the rank they held. These cloaks, &c. were distinguished from those worn by the rest of the army; having white crosses sewed before and behind with red streaks running into the corners or reentrant angles. The first company was marked with red, and the second with yellow streaks. The uniform of the superior officers, (who were generally called officiers a poste-col, or officers wearing gorgets or breast-plates) was embroidered in gold or silver, according to the company which they commanded. The troop horses of the first company, were of a white or dapple-grey color; those of the second company were black. Each company had a flag and two standards; so that when the mousquetaires served on foot, the flag or color was unfurled, and the standards were cased; and when they were mounted, the standards were displayed, and the colors casd. The standards belonging to the first company represented a bomb falling upon a besieged town, with this motto: Quo vult et iter habet; those of the second company bore a bunch of arrows, with these words the dornacht: Alterius Joviis altera tella. The mousquetaires received their colors from the king's hands.

The mousquetaires never served on horseback, except when the king traveled; on those occasions they stood next to the light horse. Their duty when on foot, was the same as that of the royal regiment of guards. When they did duty on foot at the palace, they were provided with a handsome table at the expense of the civil list. The two companies always mounted guard without being mixed with any other troops; whereas the rest of the household did duty by detachment. The mousquetaires did not take rank in the army, but they enjoyed the same privileges that were attached to the body guards, gendarmes, and light horse. They were frequently called mousquetaires gris, and mousquetaires mires, from the color of their horses.

MOUSE, Fr. Moss.

MOUSTACHE, Fr. This word was originally derived from the Greeks, adopted by the Italians, subsequently by the
Moyenne. The bastions which are constructed on the angles are called royal bastions. Some engineers have distinguished those bastions by the name of moyens royaux, or medium royals, whose flanks contain from ninety to one hundred toises.

Moyens. A term given by the French to any town in which the garrison is equal to the third of the inhabitants, and which is not deemed sufficiently important to bear the expense of a citadel; more especially so, because it is not in the power of the inhabitants to form seditious meetings without the knowledge of the soldiers who are quartered on them.

Moyens clos, Fr. In fortification, those sides which contain from eighty to one hundred and twenty toises in extent: these are always fortified with bastions on their angles. The moyens clos, are generally found along the extent of irregular places; and each one of these is individually subdivided into small, mean, and great sides.

Mudwalls. The ancient fortifications consisted chiefly of mud or clay, thrown up in any convenient form for defence against sudden inroads.

Muet, Fr. See Muette.

Muffle. To wrap anything up so as to deaden the sound, which might otherwise issue from the contact of two hard substances. When the French effected their passage over the march of Albufero, on their route to the plain of Marano, they were so much exposed to the Austrians, that, in order to get their artillery and ammunition over, without being betrayed by the noise of the carriage wheels, and the clatter of the horses' shoes, both were muffled with bands of hay and straw, and dung was spread over the ground. In this manner they crossed that stupendous rock. Thirty men were put to the drag ropes of each piece, and as many were employed to draw up the caissons.

Mufled. Drums are muffled at military funerals or burials, and at military executions, particularly when a soldier is shot for some capital crime.

Mugs. An Indian nation, living on the borders of Bengal and Arracan.

Muhlages, Fr. Turkish cavalry which is mounted by expert horsemen, who generally attend the begliseboys. They are not numerous.

Mulatto, Fr. Mulatto, or Mulatto, Fr.] In the Indies, denotes one begotten by a negro on an Indian woman, or by a man on a negro woman. Those begotten of a Spanish woman and Indian man are called metis, and those begotten of a savage by a mulatto, are called jambis. They also differ very much in color, and in their hair.

Generally speaking, especially in Europe, and in the West Indies, a mulatto is one begotten by a white man on a negro.

Formerly so used, its general acceptation. Movements, or evolutions. Movements, or evolutions.

Movements, Fr. Opposite, or medium royals, whose flanks contain from ninety to one hundred toises.

Movements, Fr. Opposite movements, or evolutions.

Movements, Fr. See Movement. Movements, Fr. See Motion for its general acceptation.

Movements, Fr. Commotions, broils. Movements, Fr. A piece of ordnance formerly so called. See Mistency.

Movements, Fr. Movements, or evolutions.
woman, or by a negro man on a white woman. The word is Spanish, mulata, and formed of mula, a mule, being begotten as it were of two different species.

Mulattoes abound in the West Indies; so much so, that on the dangerous symptoms of insurrection, which appeared among the blacks after the success of Toussaint in St. Domingo, a proposal was made to the British government by a rich planter, to raise a mulatto corps, as an intermediate check upon the blacks. After six months suspense, the memorial was rejected by the war-minister.

MULT. A soldier is said to be mulct of his pay when put under fine or stoppages for necessities, or to make good some dilapidations committed by him on the property of the peacable or government.

MULTANGULAR, is said of a figure, or body which has many angles.

MULTIPLI, one number containing another several times: as 9 is the multiple of 3, 16 of 4, and so on.

MUNIMELL, a strong hold, fortification, &c.

MUNITION, Fr. This word is used among the French to express not only victuals and provisions, but also military stores and ammunition.

MUNITIONS de bouche, Fr. Victuals or provisions, (such as bread, salt, meat, vegetables, butter, wine, beer, brandy, &c. which may be procured for soldiers) are so called by the French. Corn, oats, hay, straw, and green forage, for cavalry, bear the same appellation. See SUSTAIN-

MUNITIONNAIRE ou entrepreneur des aliments, Fr. Military purveyor, or commissary of stores. Amaury Bourguignon, from Niort, a town of Poitou, was the first munitionnaire et entrepreneur general, or purveyor-general, among the French. He was appointed in the reign of Henry III., in 1574. See PURVEYOR.

MUNITIONNAIRE pour la marine, Fr. The head of the victualling office was so called among the French. There was a person on board every ship of war, called commis, or clerk, who acted under his orders. The appointment of the latter was somewhat similar to that of a purser in the British navy. See STORES.

MUNSABAR, Ind. A title which gives him permission, and with it, a right to have the command of ten thousand horse, with the permission of bearing amongst his insignia that of the fish, neither of which distinctions is ever granted, excepting to persons of the first note in the empire. The office is called a Munshah, and it is generally supported by a district named, on which the corps is quartered. See MUR.

MUR, Fr. a wall.

MUR CRENÉ, Fr. A wall which has small intervals or spaces at the top, that serve more for ornament or ostentation than for real defence. This method of building prevailed very much in former times.

MUR de face, Fr. Outside wall of any building.

MUR de face de devant, Fr. Front outside wall; it is likewise called mur antérieur.

MUR de face de derrière, Fr. The wall which forms the backside of a building is so called: it is likewise named mur postérieur.

MUR latéraux, Fr. The side walls of a building.

MURS, Fr. All front and partition walls are so called.

MUR de pierres liées, Fr. A wall that is built of stone, without mortar or cement. Walls of this construction are seen in several countries in Hindostan, particularly in the west country.

MUR en l'air, Fr. Every wall is so called that does not rise uniformly from a parallel foundation. Walls built upon arches are of this description.

MUR outremer, Fr. Partition wall.

MUR d'appui, Fr. Wall of support. Any wall that is built to support a quay, terrace, or balcony, or to secure the sides of a bridge, is so called. Mur de parapet, or parapet wall, may be considered as a wall of support.

MURAGE. Money appropriated to the repair of military works, was annually so called.

MURAILLE de revêtement, Fr. The wall which surrounds a fortified place is so called.

Charger en Muraille, Fr. To charge or attack an enemy, in a firm, compact, and steady line.

MURAL-Couronne. See CROWN.

MURAILLE, Fr. See MURAL-CROWN.

MURDRESSES, in ancient fortification, a sort of battlement with互相 intervals, raised on the tops of towers to fire through.

Ville Murée, Fr. A walled town.

MURRION. See MORION.

MURTHIERS, or martrethiers, small pieces of ordnance, having chambers, and made to load at the breech. They were mostly used at sea, in order to clear the decks when an enemy boarded a vessel.

MUSCULUS, Kennett in his Roman Antiquities, page 237, says, "the Musculus is conceived to have been much of the same nature as the testudines; but it seems to have been of a smaller size, and composed of stronger materials, being exposed a much longer time to the force of the enemy; for in these musculi, the pioneers were sent to the very walls, where they were to continue, while with their dolabra or pick-axes, and other instruments, they endeavored to undermine..."
the foundations. Caesar has described the musquet at large in his second book of the civil wars.

**Music**, a general term for the musicians or a regimental band.

**Musicians.** It has been often asked, why the dress of musicians, drummers and fifers, should be of so varied and motley a composition, making them appear more like harlequins and mountebanks, than military appendages? The following anecdote will explain the reason, as far as at least it regards the British service. — The musicians belonging to the English guards formerly wore plain blue coats, so that the instant they came off duty, and frequently in the intervals between, they visited alehouses, &c. without changing their uniform, and thus added considerably to its wear and tear. It will be here remarked, that the clothing of the musicians then fell wholly upon the colours of regiments, no allowance being specified for that article by the public. It is probable, that some general officer undertook to prevent this abuse by obtaining permission to cloth the musicians, &c. in so fantastical a manner that they would be ashamed to exhibit themselves at public shows, &c.

**Phrygian Music.** A martial sort of ancient music, which excited men to rage and battle. By this mode Timoleon stirred up Alexander to arms.

**Muse of Music.** There were three muses, which took their names from particular countries, namely, the Lydian, the Phrygian, and the Doric.

**Musket.** The most serviceable musquet, and commodious firearm used by an army. It carries a ball of 18 to 21 grains, its length is 3 feet 6 inches from the muzzle to the pan. The Spaniards were the first who armed part of their foot with musquets. At first they were made very heavy, and could not be fired without a rest; so that, being filled with earth, there is room to lay a musquet between them at bottom, being set on low breast-works, or parapets, or upon such as are thrown down.

**Musqueteers.** Soldiers armed with musquets; who, on a march, carried only their rests and ammunition, and had boys to bear their musquets after them. They were very slow in loading, not only by reason of the unwieldiness of the pieces, and because they carried the powder and ball separate, but from the time required to prepare and adjust the match: so that their fire was not so brisk as now. Afterwards a lighter kind of matchlock musquet came in use; and they carried their ammunition in bandoliers, to which were hung several little cases of wood, covered with leather, each containing a charge of powder; the balls they carried loose in a pouch, and a priming-horn, hanging by their side. These arms were about the beginning of this century, universally laid aside in Europe, and the troops were armed with flintlocks.

**Musquetoons,** a kind of short thick musquet, whose bore is the 38th part of its length: it carries five ounces of iron, or 7½ of lead, with an equal quantity of powder. This is the shortest sort of blunderbusses.

**Musket, adj.** A skin in which water is carried.

**Mustaches.** Whiskers, worn by the Asiatics, Germans, Russians, and other foreign troops.

**Mustard.** In a military sense, a review of troops under arms, to see if they be complete, and in good order: to take an account of their numbers, the condition they are in, viewing their arms, and accoutrements, &c.

**Muster.** This word is derived from the French mastre, to show. As a muster for every man must be properly clothed and accoutered, &c. and answer to his name. The French call it appeler ses soldats. We call it an Inspection.

**Musters.** By sect. 4th of the British Articles of War, it is enacted, that the masters shall be taken of the regiments of life guards, horse guards, and foot guards, twice at least in every year, at such times as have been or may be appointed, and agreeably to the forms heretofore used therein.

The muster of every other regiment, troop, or company, in the service, are to be taken at such times, and in such manner, as is directed by the late regulations touching regimental and district paymasters, and the mode of mustering, paying, and settling the accounts of the army.

All commanding officers, and others concerned in the mustering, as well as the regiments of life guards, horse guards, and foot guards, as of the other forces, are enjoined to give the utmost care and attention to the making up of the muster rolls with strict exactness and accuracy.

Every officer who shall be convicted before a general court-martial of having signed a false certificate, relating to the absence of either officer, non-commissioned officer, or private soldier, will be cashiered.

Every officer who shall knowingly make a false muster of man or horse, and every officer and commissary, or muster-master, who shall willfully sign, direct, or allow the signing of the muster rolls, wherein such false muster is contained, shall, upon
prove made thereof, by two witnesses before a general court-martial, be caus'd, and suffer such other penalty as he is liable to by the act for punishing mutiny and desertion.

Any commissary or muster-master, who shall be convicted before a general court-martial, of having taken money, by way of gratification, on the musterings any regiment, troop, or company, or on the signing the muster-rolls, shall be displac'd from his office, and suffer such other penalty as he is liable to by the said act.

Every colonel, or other field officer, commanding any regiment, troop, or company, and actually residing with it, may give full-sights to non-commissioned officers and soldiers, in such numbers, and for so long a time, as he shall judge to be most consistent with the good of our service; but no non-commissioned officer or soldier, shall, by leave of his captain, or inferior officer, commanding the troop or company, (his field officer not being present,) be absent above twenty days in six months; nor shall more than two private men be absent at the same time from their troop or company, unless some extraordinary occasion shall require it; of which occasion the field officer present with and commanding the regiment is to be the judge.

It is strictly forbidden to muster any person as a soldier who does not actually do his duty as a soldier, &c. See LIBERTY.

Muster-master-general, Commissary-general of the Muster, one who takes account of every regiment, their number, justice, arms, &c. reviews them, seen that the horses are well mounted, and all the men well armed and accounted, &c.

Muster Roll, (quiz nominatim, Fr.) A specific list of the officers and men in every regiment, troop, or company, which is delivered to the muster-master, regimental or district paymaster, (as the case may be) whereby they are paid, and their condition is known. The names of the officers are inscribed according to rank, those of the men in alphabetical succession. Adjutants of regiments make out a muster roll, and when the list is called over, every individual must answer to his name. Every muster-roll must be signed by the colonel or commanding officer, the paymaster and adjutant of each regiment, troop, or company: it must likewise be sworn to by the muster-master or paymaster, (as the case may be) before a justice of the peace, previous to its being transmitted to government.

MUSTI. One born of a mulatto father or mother, and a white father or mother.

Mutiny, or Mutineer, a soldier guilty of mutiny.

Mutiny, in a military sense, is to rise against authority. Any officer or soldier who shall presume to use treasonable or disrespectful words against the president of the United States, against the vice president, against the congress of the United States, or against the chief magistrate or legislature of any of the United States, in which he may be quartered, is guilty of mutiny.

Any officer or soldier who shall behave himself with contempt or disrespect towards his commanding officer, or shall speak words tending to his hurt or dishonor, is guilty of mutiny.

Any officer or soldier who shall begin, excite, cause, or join in any mutiny or sedition, in the troop, company, or regiment, to which he belongs, or in any other troop, or company, in the service of the United States, or on any post, detachment, or guard, or in any presence whatsoever, is guilty of mutiny.

Any officer or soldier who, being present at any mutiny or sedition, does not use his utmost endeavors to suppress the same, or coming to the knowledge of any mutiny, or intended mutiny, does not, without delay, give information to his commanding officer, is guilty of mutiny.

Any officer or soldier, who shall strike his superior officer, or draw, or offer to draw, or shall lift up any weapon, or offer any violence against him, being in the execution of his office, on any presence whatsoever, or shall disobey any lawful command of his superior officer, is guilty of mutiny. See War.

Mutineer's, an act which passes every year in the British house of commons, to answer some special military purposes; and by which the army is continued on a peace or war establishment.

Muzzle of a gun or mortar, the extremity at which the powder and ball are put in.

Muzzle-Ring of a gun, that which encompasses and strengthens the muzzle, or mouth of a cannon.

Myriad, denotes the number ten thousand.

Myriarch. The captain, or commander of ten thousand men.

Myrmidons. In antiquity, a people of Thessaly, of whom it is said, that they arose from ants, upon a prayer put up to Jupiter, by Eacus, after his kingdom had been depopulated by a pestilence. In Homer, and in Virgil, the Myrmidons are Achilles's soldiers. The term Myrmidon is used in modern times to express any rude ruffian, or horrid assassin; the same as Lusian.

Myrmillon. A sort of combatants among the Romans, who had on the top of their cask or helmet, the representation of a fish; and in their engagements with the Scyths, if they were
from the district of Tritchinopoly. It extends west within 50 miles of the sea coast of Malabar. Serampur was the capital. It was wantonly attacked, taken, and partitioned twice, and at last completely occupied and incorporated with the British conquests.

N

NABOB, Ind. a corruption from Na-waub, the plural of nab. The title is often assumed in India without a right to it. As the real signification and import of this word is not generally known, we shall extract a passage out of Mr. Orme’s History of the Carnatic, that will place them in the clearest point of view: “Most of the countries which had been conquered by the great Mogul in the peninsula of India, are comprised under one vicereality, called from its situation, decan, or south. From the word souba, signifying a province, the vicereality of this vast territory is called soubhadar, and by Europeans sometimes the subah. Of the countries under its jurisdiction, some were entirely subjected to the throne of Delhi, and governed by mahomcrlans, whom Europeans improperly call Mowar; whilst others remained under the government of their original Indian princes or Rajahs, and were subject to follow their ancient modes on condition of paying tribute to the great Mogul. The Moorish governors depending on the souba, assumed, when treating with their inferiors, the title of nabob, which [as we have already observed] signifies deputy; but this in the registres of the throne [of Delhi] is synonymous to soubhadar, and the greatest part of those who styled themselves nabobs were ranked at Delhi under the title of phousdar, which is much inferior to that which they assumed. The Europeans established in the territories of these pseudo-nabobs (if we may be allowed the expression) following the example of the natives with whom they have most intercourse, have agreed to give them the title they so much affect. “A nabob ought to hold his commission from Delhi, and if at his death a successor has not been previously appointed by the great Mogul, the souba has the right of naming a person to administer the nabobship, until the will of the sovereign is known; but a nabob thus appointed by a souba was not deemed authentically established until he had been confirmed from Delhi. The souba received from the several nabobs the annual revenues of the crown, and remitted them to the treasury of the empire. The nabobs were obliged to accompany him in all military expeditions within the extent of his vicereality, but not in any without that extent. These regulations were intended to place them in such a state of dependence on the souba, as should render them subservient to the interests of the empire, and at the same time leave them in a state of independence, which would render it difficult for the souba to make use of their assistance to brave the throne. Nabobs, however, often kept possession of their governments in opposition both to the souba and the throne; and what is more extraordinary in the office of a despotic state, both soubas and nabobs have named their successors, who have often succeeded with as little opposition as if they had been the heirs apparent of an hereditary dominion.” It is, perhaps, superfluous to observe, that the British have taken the place of the mogul, and that nabobs are made and unmade much more freely and frequently than European kings in modern times.

NABOBSHIP. The office of a nabob. The Carnatic was one of the most considerable nabobships dependent on the souba of Deccan. From its capital it was likewise named the province of Arcot; but its present limits are greatly inferior to those which bounded the ancient Carnatic before it was conquered by the great Mogul. As we do not find that the provinces of Arcot ever extended their authority beyond the river Gondama to the north, the great chain of mountains to the west, and the borders of the provinces of Trichinopoly, Tanjore, and Mysoe to the south. The sea bounds it to the east. It was not before the beginning of last century that this country was entirely reduced by the Mahomedans. For further particulars respecting nabobs, see pages 27 and 38 in the Dissertation prefixed to the History of the Carnatic.

NACELLE, Fr. A small boat that has neither mast nor sail. It is properly called a ferry-boat.

NADIR. In astronomy, is that point in the heavens which is directly under our feet, and is diametrically opposite to the zenith, or point over our heads. The word is pure Arabic, signifying the same thing. The zenith and the nadir are the two poles of the horizon, each 90° distant from it, and consequently each in the meridian.

NAGARA, Ind. The drum made from a hollow cylinder of teak wood, and the ends covered with goatskin; it is suspended from the left shoulder to the right side, and beat with a stick made of teak wood.

NAGAR, Fr. to swim.

Se sauver à la nage, to save oneself by swimming.

NAGGUR, Ind. The principal drum in Asiatic armies, commonly allowed only to persons of high dignity. The base drum.

NAIB, Ind. a deputy. The governor...
NAIK, or NAIK, a subaltern officer in the troops of a corporeal.

Drill NAIK, or NAICK, a subaltern officer belonging to the native infantry in India, answering to our drill corporal.—Every battalion of native infantry has two drill havildars or sergeants, and two drill naicks, called non-effectives, attached to it.

NAILS of various sorts are used in artillery. See Carriage.

Round headed NAILS, small nails, whose heads are made like a flat diamond, and serve to fasten the plates with nails, to cover the sides of the carriages, and to sink the entrance of the Hudson's river, N. York; stone works are erecting there, at the expense of that state.

The Narrow, an important position on the entrance of the Hudson's river, N. York; stone works are erecting there, at the expense of that state.

The Narrow, a channel which runs between the Margate sands and the Man.

NAIL, a small round headed nail, driven in the centre of the nose of the pieces.

Counter sunk NAILS, those that have flat round heads, sunk into the iron plates, so as to be even with the outside of it.

Screw NAILS, are those which fasten the steaks to thetellies of the wheels.

Box pin NAILS, small nails without heads, to pin the navel boxes to the nave.

Slab NAILS, are driven on the outside of the nave hoops, to keep them in their places.

Flat headed NAILS, to fasten the locker or any sort of hinges.

Dog NAILS, have flat round heads; and one part of the shank next to the head is also round.

To NAIL, spike, circle, cannon, enclover &c. By. When circumstances make it necessary to abandon cannon, or when the enemy's artillery are seized, and it is not however possible to take them away; it is proper to nail them up, in order to render them useless, which is done by driving a large nail or iron spike into the vent of a piece of artillery, to render it unserviceable. There are various contrivances to force the nail out, as also machinery invented for that purpose, but they have never been found of equal use; so that the best method is to drill a new vent.

One Gaspier Vimercatus was the first who invented the nailing of cannon. He was a native of Brescia, and made use of the invention first in nailing up the artillery of Sigismund Nystastra.

NAIRS, a native military tribe of the Malabar coast. They affirm that they are the oldest nobility in the world.—Their pride on this supposition is greater than that of Rajputs. In 1755, the king of Travancore, with the assistance of a Dutch officer, called Launoy, disciplined 1,500 Nairs in the method of European infantry.

NAGARKANNA, Ind. the place where all the drums and war music are kept.

NAUKODA, a native captain or pilot so called in India.

NANA, Ind. the title which is given to a chief of the Marattas. It more properly signifies the act of head of the government, and general of the forces.

NAPPE de feu, Fr. See Jets de feu.

NARROW, of small breadth.

NARROW Front. A battalion, &c. is said to assume a narrow front, when it goes from line into column, upon the principles of compression.

The Narrow, an important position on the entrance of the Hudson's river, N. York; stone works are erecting there, at the expense of that state.

The Narrow, a channel which runs between the Margate sands and the Man.

NATIONAL troops, are those raised under the authority of Congress, in contradistinction to the Militia, which may be called States troops, being organized by the several States.

NATIVE, in general, denotes a person born in a certain place, but more particularly it refers to the proper residence of the parents, and where the person has his education.

NATIVE Company, a body of troops so called in India, in contradistinction to the European regiments. According to the regulations printed at Calcutta in 1797, each regiment was directed to have six troops, consisting of two captains, one captain-lieutenant, six lieutenants, three cornets, two serjeants, six subalterns, six jemidas, 18 havildars, 18 naicks, six trumpeters, 450 troopers, six puccallies.

The staff consists of one adjutant, one quartermaster, one paymaster, one surgeon's mate, one adjutant-major, one quartermaster-serjeant, one drill havildar, one drill naick, one trumpeter-major, six pay-havildars, six farriers, and one native doctor.

Each regiment to be commanded by a field officer.

Native Infantry. A body of troops under the immediate direction of the presidency of Bengal, composed of the natives of India. According to the regulations published at Calcutta in 1797, it is directed, that the battalions of native infantry should be formed into regiments of two battalions each, with ten companies in each battalion, the regiment to consist of one colonel, two lieutenant-colonels,
two majors, (Junior lieutenant-colonel, and Junior major, to be without companies) seven captains, (Major lieutenant, 22 lieutenants, 10 ensigns, two sergeants, 20 drummers, 100 drummers and files, 1,000 privates for Bengal, 3,000 privates for Madras and Bombay, 20 puccailes. The staff consists of two adjutants, one paymaster, one surgeon, two mates, one sergeant-major, one quarter-master sergeant, two native doctors, one drum-major, one file-major, two drill havildars, and two drill serjeants.

The peace establishment of these corps was ordered to consist of four regiments, to be commanded by two lieutenant-colonels to the two first, and two majors to the 3d and 4th regiments; a brigade major to be allowed to the cavalry. The whole, when raised, were to be commanded by a colonel commanding in his own regiment. But, at the period mentioned, only two regiments of native cavalry were raised, and twelve regiments of native infantry.

It was further directed, that upon the completion of the native cavalry, the promotions of officers should proceed by seniority in their respective regiments, until they arrived to the rank of captain, and afterwards to rise in the whole corps to the rank of major, and to the command of regiments. The promotion to major, and commanders of regiments, was subject to the same principle, as in the infantry, in regard to being unfit. But if field officers of cavalry were superceded in consequence of being unfit to command, they were to be allowed to retire with the pay of lieutenant-colonel of infantry.

The promotions in the native infantry were to take place according to seniority in their respective regiments, to the rank of lieutenant-colonel, and afterwards to colonels, and command of regiments, with the following proviso:

That should the senior lieutenant-colonels appear to the government at the presidency, either upon representation of the commander in chief, or by any other means, to be unfit to command regiments, they were to be passed over, and junior officers promoted. But the reasons for such supersession were to be entered on the records, for the information of the court of directors.

The same principle was directed to be applied to the European infantry, to the promotion of officers of artillery to the command of battalions, and of corps; to the chief engineers, to the colonel commanders, and officers to command regiments of cavalry, and to the rank of major-generals from that of colonel.

It was further ordained, that should any captains or subalterns obtain leave from that period to exchange from one regiment to another, they were to come into the regiment to which they were removed as youngest of their respective ranks, according to the practice in the British establishment.

It was also ordered, that each regiment of native cavalry, and native infantry, in the absence of the colonel, should be under the general command of the senior lieutenant-colonel, who was to have the particular command of the 1st battalion, and the junior lieutenant-colonel that of the second battalion.

The same regulation prevails in the Indian, or native corps, with respect to the appointment of paymasters, that exists in the royal service.

About the same period, a very satisfactory regulation took place in favor of the European and native or company's troops, to prevent the growth of much existing jealousy between them and the king's troops. To give every officer of the company a king's commission, of the same date with that which he received from the company, with a retrospect founded on the date of the king's commission they then held, so as to prevent supersession by the various promotions which had recently taken place by general brevet in the British army.

Natural fortification, consists in those natural obstacles which are found in some countries, and which impede or prevent the approach of an enemy. Thus a place, the avenues to which are easily closed, or which are surrounded by impassable rivers or marshes, is defended by natural fortification.

Nau, having once held, or being in the royal service. To give every officer of the company a king's commission, of the same date with that which he received from the company, with a retrospect founded on the date of the king's commission they then held, so as to prevent supersession by the various promotions which had recently taken place by general brevet in the British army.

Naval, fr. This word is used to convey the same meaning among the French that it does with us, viz. arme navale, naval armament; combat naval, sea fight, or naval combat; forces navale, naval forces. It is remarked in the Dictionnaire de l'Academie Françoise, that naval, when used in the masculine gender, is not susceptible of the plural number.

Naval armament, the fitting out a fleet, with all kinds of provisions and military stores, for actual service.

Naval camp, in military antiquities, a fortification, consisting of a ditch and parapet on the land side, or a wall built in the form of a semi-circle; and extended from one point of the sea to the other. This was fortified with gates; and sometimes defended with towers; through which they issued forth to attack their enemies. Towards the sea, or within it, they fixed great pales of wood, like those in their artificial harbors; before these the vessels of burthen were placed in such order, that they might serve instead of a wall, and gave protection to those without; in which manner Nicias is reported by Thucydid to have encamped himself. When their fortifications were thought strong enough to defend them from the assualts of enemies, the ancients frequently dragged their ships on shore. Around these ships the soldiers

9 0
disposed their tents as appears every where in Homer; but this seems only to have been practised in winter, when their enemy’s fleet was laid up, and could not assault them; or in long sieges, and when they lay in no danger from their enemies by sea, as in the Trojan war, where the defenders of Troy never once attempted to encounter the Greeks in a sea-fight.

**Naval crown, in Roman antiquity,** a crown conferred, among the Romans, on persons who, in sea engagements, distinguished themselves. A. Gelius says, in general, the naval crown was adorned with prows of ships. Lipsius distinguishes two kinds; the first suppose a plan, and given to the common soldiers; the other rostrated, and only given to generals or admirals, who had gained some important victory at sea.

**Naval officers,** are admirals, captains, lieutenants, masters, boatswains, midshipmen, gunners, &c.

**Naval engagement,** implies, in general, either a sea-fight between single ships, or whole fleets of men of war, or galleys, &c.

**Naval tactics,** or the art of was carried on by ships at sea; this being limited to the possibilities of navigation, is therefore much less susceptible of that variety of stratagem which belongs to the hostility of armies on land, and comprehends beside the knowledge of military operation, that of the movement of ships under all circumstances of wind, weather, and also of the structure of ships and rigging.

The tactics of the ancients consisted in the formation of position by which they could bear down upon and pierce the enemy’s fleet was lured up, and could no longer resist them; or in long sieges, and when they lay in no danger from their enemies by sea, as in the Trojan war, where the defenders of Troy never once attempted to encounter the Greeks in a sea-fight.

**Naval service,** in general, any fleet or assembly of ships. It is more particularly understood of the vessels of war that belong to a kingdom or state.

**Navy,** implies, in general, any fleet or assembly of ships. It is, however, more particularly understood of the vessels of war that belong to a kingdom or state.

**Nautical globes,** a description of the terrestrial globe upon a plane, for the use of mariners: but more usually called charts.

**NAVY DEPARTMENT of the United States,** has the charge of the naval affairs, and of the military marine corps.
### Number and Kind of Ordnance for each of the Ships in the British Navy.

<table>
<thead>
<tr>
<th>Rank</th>
<th>No. of Guns</th>
<th>No. of Guns of each Kind</th>
<th>Carronades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>42</td>
<td>32</td>
</tr>
<tr>
<td>1st</td>
<td>100</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>2nd</td>
<td>90</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>3rd</td>
<td>70</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>4th</td>
<td>60</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>5th</td>
<td>50</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>6th</td>
<td>40</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Sloops</td>
<td>20</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>

### Dimensions of Ships, Number of Men, and Draught of Water.

<table>
<thead>
<tr>
<th>Number of Guns</th>
<th>Length of Ships: Feet</th>
<th>Breadth of Ships: Feet</th>
<th>Complement of Sailors</th>
<th>Complement of Marines</th>
<th>Depth of Water: Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>190 -</td>
<td>53 -</td>
<td>875</td>
<td>1 Captain</td>
<td>24</td>
</tr>
<tr>
<td>100</td>
<td>185 -</td>
<td>52 -</td>
<td>750</td>
<td>1 Subalt.</td>
<td>23</td>
</tr>
<tr>
<td>90</td>
<td>180 -</td>
<td>50 -</td>
<td>650</td>
<td>1 Cap. &amp; Sub.</td>
<td>18</td>
</tr>
<tr>
<td>80</td>
<td>175 -</td>
<td>49 -</td>
<td>600</td>
<td>2 Lieutenants</td>
<td>17</td>
</tr>
<tr>
<td>70</td>
<td>170 -</td>
<td>48 -</td>
<td>500</td>
<td>1 Lieut.</td>
<td>16</td>
</tr>
<tr>
<td>60</td>
<td>165 -</td>
<td>47 -</td>
<td>500</td>
<td>1 Subalt.</td>
<td>15</td>
</tr>
<tr>
<td>50</td>
<td>160 -</td>
<td>46 -</td>
<td>500</td>
<td>1 Subalt.</td>
<td>15</td>
</tr>
<tr>
<td>40</td>
<td>155 -</td>
<td>45 -</td>
<td>500</td>
<td>1 Subalt.</td>
<td>15</td>
</tr>
<tr>
<td>30</td>
<td>150 -</td>
<td>44 -</td>
<td>500</td>
<td>1 Subalt.</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td>145 -</td>
<td>43 -</td>
<td>500</td>
<td>1 Subalt.</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>140 -</td>
<td>42 -</td>
<td>500</td>
<td>1 Subalt.</td>
<td>15</td>
</tr>
</tbody>
</table>

N. B. The usual complement of Marines is one for every Gun in a British Ship of War.
sures or enterprises, which though not entirely successful, are not productive of serious or mischiefous consequences.— Hence the British expeditions to Spain, and to Walcheren, may be considered as having had negative success.

NEGATIVE Penalties. Certain laws which persons are excluded from military rank, &c. without inflicting any positive pains.

NEGLECT of DUTY. Officers or soldiers convicted of neglect of duty, are punishable at the discretion of a court-martial.

NEGROES, blacks, moors. The people brought from Guinea, and other parts of Africa, as slaves, and sent into the colonies of America, to cultivate sugar, tobacco, indigo, &c. and to dig in the mines of Peru or Mexico.

NEILCOTAH, a fort situated about forty miles to the south of Tinvelly, in the East Indies. This fort has been rendered memorable by the manner in which it was captured by the English in 1755, and the barbarity with which a garrison was treated which had not killed a man and had called for quarter, and yet men, women, and children were massacred. The detachment consisted of 100 Europeans, and 700 sepoys, with two field pieces. These troops (to quote Mr. Orme's words in his History of the Caracal, page 388, book V.) set out at mid-night and performed the march in 18 hours: the polyzar, started at the sub-dexterity of their approach, sent out a deputy, who pretended he came as a pledge for the execution of what was promised, and he was accordingly delivered over to the charge of a guard. The troops were so much fatigued by the excessive march they had just made, that even the advanced centinels could not keep awake; and the deputy perceiving all the soldiers who were appointed to guard him, fast asleep, made his escape out of the camp, and returned to the fort; from whence the polyzar had sent him only to gain time, in order to make the necessary preparations for his defence. This being discovered early in the morning, it was determined to storm the place, of which the defences were nothing more than a mud wall with round towers. The troops had not brought any scaling ladders, but the outside of the wall was sleeping, and had many clefs worn in it. In the course of the assault, although hazardous, was nevertheless practicable. It was made both by the Europeans and the sepoys with undaunted courage, in several parties at the same time; each of which gained the parapet without being once repulsed, when the garrison retired to the buildings of the fort, where they rallied out for quarter; but the soldiers, put all they met to the sword, not excepting the women and children, suffering only six persons, out of four hundred, to escape alive: shameful to relate, the troops and officers who bore the greatest part in this shocking barbarity, were the bravest of Englishmen, having most of them served under the colonel Lawrence, on the plains of Trichitiopoly; but those who contemplate human nature will find many reasons, supported by examples, to dissent from the common opinion, that cruelty is incompatible with courage.

NESHAUNBURDAR, Ind. an ensign.

NETHERLANDS, that part of modern France which lies next to the sea; it was once called the circle of Burgundy, and sometimes the Low Countries, so called from being situated between France, Lorraine, Germany, and the ocean.

They were formerly divided into 17 provinces, four of which were dukedoms, viz. Brabant, Limburg, Luxem burg, and Guelderland; seven were earldoms, viz. Flanders, Artois, Hainault, Holland, Zealand, Namur, and Zutphen; and five baronies, viz. West Friesland, Mechlin, Utrecht, Oversayll, and Groningen.

These were originally governed by distinct lords or princes, but were all united under Philip the good, duke of Burgundy, who left them to his son Charles, surnamed the Hardy, who being killed at Nancy, in 1477, the 17 provinces fell to his only daughter, Mary of Burgundy, who by marrying with Maximilian the First, of Germany, carried them into the house of Austria.

The kings of France claimed a right to Artois, Flanders, &c. In the reign of King Philip II of Spain, William of Nassau, prince of Orange, and several other discontented noblemen, gave beginning to those disturbances which terminated in the separation of Holland, and the other countries known by the name of the United Provinces, occasioned by the dread of the Inquisition, the insurgents, and especially the government of the Duke of Alva, and the violent encroachments of the Spaniards upon the liberties and privileges of the countries.

The Netherland, comprehending Holland, have undergone material alterations during the progress of the French Revolution. Brabant and Flanders, which belonged to the house of Austria, have been annexed to France, and form several of its departments. Holland, upon the expulsion of the Stadtholder, was allowed to call itself an independent country, in alliance with France; but the British co-operating with the adherents of the Stadtholder, exposed it to repeated invasions, to put an end to these conspiracies, after twice expelling the English, the government was changed, and it is now distinguished by the name of the Batavian kingdom.
NETTOYER, in Magazines, Fr. in artillery, signifies to wash or clean the different pieces of ordnance, for the purpose of having them carefully examined, &c., and to keep the stores and ammunition so arranged as not to receive damage. This duty is generally performed by small parties of soldiers, under the command of serjeants, who are detached from the different guards of a garrison town. In the old French service the commissaire d'artillerie superintended the execution of this necessary duty, and the soldiers who were employed, got relieved from any further attendance as part of the guard, the instant their work was done.

NETTOYER le courtin, Fr. to scour or enfile.

NETTOYER le rampart, Fr. to scour the rampart.

To remain a state of neutrality. The French writer humorously says, Il veut faire marine, cela fait que continuelement ils vont enchercher à drôle et à gracieux, they would find hammers, instead of which they become anvils, and get beaten both right and left. This happened to the Venetians in 1701, who endeavored to remain neutral during the campaigns that took place between the French and the Imperialists. The Danes afforded another illustration of the inutility of a neutrality without power to resist, the destruction of Copenhagen, and the plunder of their navy, is an atrocity unparalleled. The treatment experienced by the United States, is only inferior to the barbarity exercised against Denmark.

The intermediate country. In the middle condition of one who is neutral, a middle condition between a friend and an enemy. In a military sense, remaining strictly indifferent, whilst other powers are at war, without assisting any party with arms, ammunition, or men. When a country, calling itself neutral, furnishes a quota or contingent to any nation that is at war with another, it cannot be said to observe the strict laws of neutrality. Of all precarious and difficult situations that perhaps is the most so, in which a weak nation is placed when two powerful nations were at war on each side, and the exact laws of neutrality are expected to be observed by the intermediate country. Bayle speaking of neutrality, humorously exclaims, 1. Quoi! ce n'est pas quatre qu'ont a l'autre monde, mais dans celui-ci, ils sont misérables! happily are the peaceable with respect to the next world, but they are miserable in this! in order to derive advantages from the dissensions and bolls of others, they inevitably become the victims of both parties. The Danes, after the American revolution, excited a general indignation among the maritime powers of the north of Europe. A project said to be devised by Dr. Franklin, and suggested to the count de Vergennes, was communicated to the courts of Russia and Prussia, and taken up with the zeal of a passion by the empress Catherine of Russia, who so dexterously managed his neutrality in the war between Rome and Carthage. His subjects were considerably benefited by the sound policy observed, whilst his own reputation was not a little increased by the sound policy that dictated it.

Armed Neutrality. The depredations committed by the naval force of Great Britain, during the first years of the American revolution, excited a general indignation among the maritime powers of the north of Europe. A project said to be devised by Dr. Franklin, and suggested to the count de Vergennes, was communicated to the courts of Russia and Prussia, and taken up with the zeal of a passion by the empress Catherine of Russia, who so dexterously managed his neutrality in the war between Rome and Carthage. His subjects were considerably benefited by the sound policy observed, whilst his own reputation was not a little increased by the sound policy that dictated it.

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stances. Sweden was already a party in the war.

During the progress of the French revolution, instances have occurred in which a wise neutrality might have been made productive of great national good. But this there are few statesmen, who have ability or political virtue enough, to resist the intrigues or views of those cabinets, who being themselves involved in war, leave nothing untried to drag their neighbours into the same troubled state. Montesquieu has observed, with his usual good sense, that nations seldom know how to avail themselves of natural advantages; and that a matter of hard necessity in one country, is frequently found to exist in another, from crooked national rights, that necessitate drives those to the adoption of questionable measures, who would otherwise remain strictly neutral; whilst others again, from being contiguous to contending armies, require various pretences, in order to remain in an armed condition for the purpose of taking advantage at a critical moment. Other instances were the system of armed neutrality which might have been made rights which might be suffered to relax and yield to that state of expediency in which a certain course of measures might involve the existence of a nation.

Such was the detestable and odious sophistry which might be as well applied to cover and excuse any other species of atrocity, and which was followed by the bombardment and destruction of Copenhagen, the murder of its citizens, and the seizure and plunder of its fleet and naval arsenal. La loi des plus forts, or the law of the strongest, so often tramples down national rights, that necessity drives those to the adoption of questionable measures, who would otherwise remain strictly neutral; whilst others again, from being contiguous to contending armies, require various pretences, in order to remain in an armed condition for the purpose of taking advantage at a critical moment. Other instances were the system of armed neutrality which Pope Leo X. is recorded to have pursued. When Francis I., king of France, was engaged in a war with the Swiss Cantons, respecting the Milanese, his holiness resolved to remain neutral, or at least affected to be so, although he was strongly invited by both parties to take an active and decisive part. He drew his troops towards the frontier of the Milanese, under a pretext of covering the ecclesiastical states, but in reality for the purpose of being at hand when the two armies should come to a decisive engagement, of unexpectedly falling upon the victorious army at the close of an obstinate and bloody battle, of driving it out of Italy, becoming master of Lombardy, and finally establishing himself as the arbiter of the country. But all these imaginary triumphs of the Pope soon disappeared—His troops, which had already reached the point of disorder, as if they were conscious of being engaged in a crooked and illegal cause.

Ancient history affords us several examples of this species of neutrality. During the civil wars between the adherents of Vetupasian and those of Otobus and Cophenans, various means of duplicity were resorted to. We likewise read of the same sort of conduct having been observed by the inhabitants of Corcyra when they went to war with the Corinthians; and modern history is full of similar instances of specious neutrality. For further particulars on this interesting subject, especially on the conduct to be observed by neutrals in war, see from Page 531 to 532, of the English Translation of Hugo Grotius.
humor, to distinguish an individual—Nicknames among military men are familiarly used in a collective sense. Thus the light infantry are called Light Blues, the grenadiers Tow Rebs, and the battalion Flat Foots; and in many instances whole corps have been particularized in this manner. The 8th of foot were familiarly called the Lighties; and a general Sir Charles, an officer in the British service, used to be nicknamed General Nizam, from a circumstance which occurred during the American war, when he commanded a party which stole into an American camp at night, and instead of fighting like a soldier, assassinated the Americans while asleep. During the campaigns of 1793 and 1794, in Flanders, &c. the 17th regiment of light dragons were called Young Eyes by the guins, who received or rather gave themselves the nick-name of Old Eyes.

NIGHER, Ind. any fortified city, measuring at least eight coss, or eight English miles, in length and breadth.

NIQUIBUS, Ind. men whose military functions among the sepoy, correspond with those of corporals in the king's service.

NITHING, a coward, or poltroon.

NITRE. See Salt Petre Gunpowder.

NIVEAU, Fr. A level.

NIVEAU de la campagne, Fr. the level surface of a country is so called, in contradistinction to the fall or slope of any rising ground.

NIVEAU de fer, Fr. the water level.

This instrument is extremely simple, and of great use to engineers in the construction of works.

NIVEAU de charpentiers, Fr. a carpenter's rule or level.

NIVEAU de paveur, Fr. a pavior's level.

NIVELER, Fr. to level.

NIVELER les eaux, Fr. to find the true level for conveying water.

NIVELER le terrain, Fr. to find the true level of ground, and to ascertain the relative elevations of places.

NIVELEUR, Fr. a leveler; it is likewise sometimes used to express a trier; but it does not signify a leveler in the political sense which we apply the English word in these days; nor does it mean a leveler belonging to a set of people in Oliver Cromwell's army, who were for having an equal share in the administration of the government between the nobility and the commons.

NIZAM, Ind. a title which was bestowed by the great Mogul on one of his principal officers on his being appointed to the command and administration of a province. It became the title of an independent prince who ruled over Golconda about the year 1700; the British now rule over him. The word means, an adjuster, a regulator, an arrester, or manager, &c.
cities of nobility consists the British house of lords; to which occasional additions are made by purchased peerages. The justly celebrated Thomas Paine has characterized the futility of what is called nobility by a happy pun, calling them ex-nobles.

NOBLES, are the grandees of NOBLEMEN, any kingdom or nation, by whatever title they are distinguished. Honorary distinctions have been very ancient. The Greeks distinguished their people into three ranks, viz. Noblemen, landholders, or farmers, and tradesmen. The first were indulged with great privileges, and wore the figure of a grasps-bearer, as a badge of honor, in their hair. The Romans wore a half moon upon their shawls.

Among the Romans, those persons were called nobles who possessed the states of their ancestors in their courts or abroad. The titles of these states were painted to resemble life. But it was necessary to be descended from the ancient magnates, called ephor and ephoros, to be entitled to have these states. They were exhibited to the public on festival days, and when any of the family died, they were carried in solemn procession before the corpse; so that under these circumstances, an individual might be a patrician without being actually of noble blood or extraction.

The person was called noble in France, who first received a letter patent constituting him such, and who thus gave rise to the nobility of his descendants. Those born of him bore the title of gentilhomme, or gentleman, Un ancien gentilhomme, or gentleman of some standing, was siled grandee de l'ordre, or a person of condition. Those gentlemen who were descended from illustrious houses were called, men of quality, gens de qualite.

In England, those only are called nobles or noblemen, who have the title of duke, marquis, earl, viscount, or baron, which titles either descend to individuals from family-right, are gratuitously conferred upon them by the Prince (who is called the fountain of honor) or are obtained by the price of gold. The hereditary tenure becomes equally solid in all these instances, though not equally estimable, unless the title be itself ennobled by some great and good actions of the possessor. By these, and those only, can a purchased title be converted into stabling gold from base metal.

NOBLESSE MILITIAE, or military nobility. Although most of the orders may be considered as appendages which confer a species of military nobility, especially that of the British order, which was instituted by King Edward III., on the 25th of January, 1348, yet the British cannot be strictly said to have among them, that species of military nobility or distinction that was peculiarly known in France, for, under the immediate title of noblesse militaire, in order to reward military merit, an edict was issued by the French court at Fontainebleau, in November 1750, and entered on the 25th of the same month by the parliament of Paris, by which noblesse militaire, or military nobility, was created; the acquisition of which depended wholly upon martial character, but did not require any letter patent for the purpose of conferring the individual.

By the first article of this perpetual and irrevocable edict, as it was then stated, it was declared, that no person, serving in the capacity and quality of officer in any of the king's troops, should be liable to the land or poll tax, so long as he continued in that situation. Still that by virtue of this edict, and from the date thereof, all officers, not being otherwise ennobled, but being actually and bona fide in the service, should be entitled to the same rank in future the title of general officer should enjoy all the rights and privileges of nobility from the date of their commissions. In articles IV., V., VI. and VII. it was specifically provided what conditions those officers, who were not noble, and were superior in rank to that of maréchal de camp, but who had been created chevaliers or knights of the royal and military order of St. Louis, and who should retire from the service after having been in the army during thirty years without intermission, were to be exempted from the payment of the land or poll tax, and how the same privileges was to be transferred to their sons, provided they were in the service.

By the eighth article it was enacted, that those officers who had risen to the rank of captain and were chevaliers or knights of the order of St. Louis, but who were disabled by wound, or diseases contracted in the service, should not be obliged to fill up the period of thirty years as prescribed in the recited articles. By article IX. it was provided, that when any officer, not under the rank of captain, died in the actual exercise of the functions, or bearing the commission of captain, the services he had already rendered should be of use to his sons, lawfully begotten, who were either in the service or intended for it.

It was specified in articles X. and XI. that every officer, born in wellborn, whose father and grandfather had been exempted from the land or poll tax, should be noble, in his own right, provided he got created a chevalier or knight of St. Louis, had served the prescribed period, or was eligible.
ed to the exemption mentioned in article VIII, that if he should die in the service, he would be considered as having acquired the rank of nobility, and the title so obtained should descend, as matter of right, to the children, lawfully begotten, of such officers as had acquired it. It was specified, that even those who should have been born previous to their father's being ennobled, were entitled to claim to military nobility.

Article XII. pointed out the method by which proofs of military nobility were to be exhibited in conformity to the then existing edict.

Article XIII. and XIV. provided for those officers, who were actually in the service at the promulgation of the edict, in proportion as the prescribed periods were filled up. This provision related wholly to the personal service of officers; as no proof was acknowledged or received, relative to services done by their fathers or grandfathers, who might have retired from the army, or have died prior to the publication of the edict.

The XVth, or last article, was a sort of register, in which were preserved the different titles that enabled individuals to lay claim to military nobility.

The whole of this edict may be seen, page 208, in the 3d volume, Des Éléments Militaires.

The French emperor Bonaparte has instituted an order of nobility called the legion of honor, which appears to be greater than any order ever established, even than that of the Jesuits. He has also adopted the ancient military title of 
duque; which he has hitherto conferred only on men who have merited renown by their military greatness. The title of 
count is also established, and all the members of the legion of honor hold a rank corresponding with the knights of feudal institution. Private soldiers and tradesmen, for acts of public virtue, have been created members of the legion of honor.

NOTEJ de Parrelle, Fr. a particular knot which artificers or fireworkers make use of to bind fuses together.

NOTEJ de charnue, Fr. a particular knot of stress, which is used in the artillery when ropes are passed under carriages, for the purpose of raising any piece of ordnance that has been overthrown. For the various knots used in military service, see the Am. Mil. Library Art. Artillery.

NOMADES, a tribe of wandering Arabs, so called in Asia.

NOMINAL, by name. Hence

Nominal Call, which corresponds with the French appel nominal; and, in a military sense, with our roll call.

NOURRICE, Fr. a nurse. A female who attends the sick. This word is likewise used by the French to express the means of subsistence, &c., which are supplied by the agricultural part of a kingdom. Hence se province est en nourrice d'une ville; the town is fed by the country round it. La Sicile est la nourrice de Rome. Sicily is the nurse of Rome; meaning thereby that the latter was supplied with corn, &c. by the former.

NOUVRIR. To feed. The French say familiarly, la soupe nourrit le soldat; broth feeds the soldier.

NOVAYU, Fr. in English mandrel, a long piece of iron, which is placed in the middle of a cannon mould, in order that the liquid metal may be poured round it, and the piece obtain a equal thickness on all sides.

NOUVRIR, Fr. likewise means the whole of the vacant space or bore of a cannon, under which are comprehended the diameter of the mouth, the vacant cylinder, the breech, and the vent.

With respect to bombs, grenades, and hollow balls, that which is called 
mandrel consists of a globular piece of earth, upon which the cover of bombs, grenades, and hollow balls, is cast. The metals are poured in between this cover and the 
mandrel, after which the mandrel or core is broken, and the earth taken out.

NOWARRA, Ind. An establishment of boats, which is kept at Dacca, for a defence against the Devotes, Mogus, and other plunderers.

NUDDLE, Ind. The name for a rivulet.

NULLA, Ind. This term likewise signifies a rivulet, and means the place which was once the bed of a river.

NUMEROS, Fr. round pieces made of brass, or other metal, which were numbered and used in the old French service in the detail of guards. See MARRIN.

NURSE. A person, generally a female, whose whole business is to attend the sick in the general or regimental hospital. She is under the immediate direction of the surgeon, whose duty will be to prepare the slops and comforts for the sick, and occasionally to assist in administering medicines, cooking the victuals, washing, &c., and for every ten men confined to bed by fever, an additional nurse and orderly-man should be allowed. All the patients, who are able, are every morning and evening to assist in cleaning and airing the hospital, carrying away dirt, &c., and by every means to assist the helpless.

There are also servants, orderly-men, and nurses, in regiments of the line.

In every regimental hospital, a room should be appropriated to the accommodation of such convalescents, whose health will admit of their being placed on full diet. This hospital to be regularly visited by the surgeon once, twice, or oftener in the day, as circumstances may require.

A non-commissioned officer should be appointed to the particular charge of the convalescent hospital, with an orderly-man, and when the convalescents are numerous, more orderly-men are to be attached to it, to keep it clean.
It is particularly necessary that none of the hospital tables and orders, which are to be hung up in a conspicuous place in every regimental hospital, shall be defaced by any person whatever, nor taken down, but by the surgeon or serjeant, the latter of whom will explain the allowance ordered for those patients who are not themselves in a situation to read the table for the distribution of diet.

OATH, a solemn affirmation made in the presence of a magistrate, and taken on the Bible, whereby an individual binds himself to observe certain conditions, or swears to specific facts which he knows of his own knowledge. Soldiers from time immemorial have been accustomed to take oaths of fealty. These oaths were, however, observed with greater solemnity among the ancients than they are administered in modern armies, except upon very particular occasions. In the latter, indeed, it seldom or ever happens, that oaths are taken by bodies of soldiers, assembled for the purpose. Oaths are taken by men newly enlisted, but those oaths are individually administered, and separately taken. The military oath, on the contrary, among the Romans, was of a more general and impressive nature. Kennett, in his Roman Antiquities, page 188, gives the following account of it:—"The levies being finished, the tribunes of every legion chose out one whom they thought the fittest soldier, and gave him a solemn oath at large, the substance of which was, that he should oblige himself to obey the commanders in all things to the utmost of his power, be ready to attend whenever they ordered his appearance, and never to leave the army but by their consent. After he had ended, the whole legion, passing one by one, every man, in short, swore, in the same effect, crying, as he went by, Iden in me. The same by me."

OATH of Allegiance. See ALLEGIANCE.

OATS, a grain which constitutes a principal food of horses in Europe. The distribution of this article ought to be narrowly watched by every officer commanding a troop; since it is notorious, that government is frequently charged for quantities which are not delivered, by which means, the horse suffers, and the public are imposed upon.

OBEY, (Obstississe, Fr.) Submission to the orders of a superior. The first principle which ought to be inculcated and impressed upon the mind of every officer and soldier is obedience to all lawful commands. It is the main spring, the soul and essence, of military duty. 

Prere obedience, Fr. To swear allegiance.

OBEY, (Obstississe, Fr.) Terencall to duty.

OBEYENCE to orders. An unequivocal performance of the several duties which are directed to be discharged by military men. All officers and soldiers are to pay obedience to the lawful orders of their superior officers.

OBEDIENT, Fr. See OBEY.

To obey, in a military sense, is without question or hesitation, to conform zealously to all orders and instructions which are legally issued. It sometimes happens, that individuals are called upon (by mistake, or from the exigency of the service) out of what is called the regular roster. In either case they must cheerfully obey, and after they have performed their duty, they may remonstrate.

OBJECT, in a military sense, signifies the same as point, with respect to mere movements and evolutions. Thus in marching forward in line, &c. the leader of a squad, company, or battalion, must take two objects at least upon which he forms his perpendicular movement, and by which the whole body is regulated. In proportion as he advances he takes care to select intermediate and distant objects or points by which his march is governed. See MARCHING IN LINE.

OBLATE, any round figure flattened at the poles as a turnip; which is properly an oblate spheroid.

OBLIQUATION, a deviation from parallel or perpendicular line.

OBLIQUE, or second flank. The face of a bastion discovered from a part of the curtain, is so called.

OBLIQUE Firing, or crossfire. When the component parts of a column that is extending into line, deviate to the right or left, for the purpose of taking up an oblique position, its movements are called oblique deployments. This is thus executed, either by wheeling the line by quarter or half wheels toward the point directed in single files, sections, or platoons; so that the movement may be made perpendicular to the newly wheeled front, and the sections will form echelons; if files, they march by what is called the line of science.

OBLIQUE fire or defence, that which is under too great an angle, as is generally the defence of the second flank, which can never be so good as a salient in front. See oblique firing, at the word FIRING. See Am. Mil. Lib. plates.

OBLIQUE percussion, is that wherein the direction of the striking body is not
OB SE A V T I O N. To be under Observation. To be caused to be looked at. {Observation, Fr.} To be seen. {Observation, Fr.}

To be under Observation. To be cause to be looked at.

OLBIVION. See Amnesia.

OLBIVION, Fr. To obliterate, to cancel in an oblique direction.

OLBIQUEMEMENT, Fr. Right oblique.

OLBIQUE, Fr. Left oblique.

OLBIQUES À DROITE ET À GAUCHE, Fr. Oblique to the right and left.

ORBÉR, Fr. To besiege, to beset, to set the besiegers on.

OBSEQUES. (Obséques, Fr.) See Burials.

OBSEVE. OBSERVATION. See Army of Observation.

To be under Observation. To be cause to be looked at. Etre vu de près; être vu du près.

OBSERVATEUR, Fr. To set the besiegers on.

OBSERVATION. To be under Observation. To be cause to be looked at.

OBSERVATORY, a building, public or private, which is erected and provided with all sorts of instruments, proper for astronomical observations, &c.

The most notable observatories in Europe, are:
1. The observatory at Paris, which was erected by Louis XIV. This building stands in the Faubourg St. Germain, and is so constructed as to answer the four cardinal points of the world, east, west, north and south. The foundation is laid 80 feet below the ground, and the edifice carried as much above it. It contains three stories in height, and has a terrace at top, from whence the whole horizon appears flat. The stair-case of this observatory deserves notice, from the singularity of its construction, being in the form of a screw, and so contrived, that from the bottom there is a full sight of the stars that pass the zenith of this place.
2. The observatory at Greenwich, in England, which was founded by Charles the second.
3. The observatory at Pekin in China, which was erected by the late emperor, at the intercession of the Jesuits.

To OBSERVE, to watch closely, &c.

Hence, to observe the motions of an enemy, is to keep a good look out by means of small corps of armed men, or of intelligent and steady spies or scouts, and to be constantly in possession of his different movements. No man can be said to have the talents of an able general, who neglects to observe his enemy in all directions; for if it be his intention to attack, you may thwart him by previous manoeuvres; and if you are liable to be attacked yourself, you may assume the best possible position, and prevent surprise, &c.

OBSIDIONAL, belonging to a siege.

OBSIDIONAL Crown, (couronne obstdionale, Fr.) a crown so called among the ancient Romans, which was bestowed upon a governor or general, who by his skill and exertions, either held out, or caused the siege to be raised of any town belonging to the republic. It was made from the grass which grew upon the spot, and was therefore called gramineus, from the Latin word gramineus, signifying grass.

OBSERVER, Fr. Any substitute for coin, which has a value put upon it that is greater than its intrinsic worth; and a currency given, to answer the convenience of the inhabitants of a besieged place. On a employé le cuir à faire des monnaies obstrionales. The inhabitants made use of leather as a substitute for coin.

OBSTACLES, in a military sense, are narrow passes, woods, bramble, swamps, or other impediments, which present themselves when a battalion is marching to front or rear. These are passed, by the formation, march, and deployment of the close column. Such parts as are not interrupted still move on in front; such parts as are interrupted, double by divisions, as ordered, behind and adjoining a flank or flanks, and in this manner follow in close column in their natural order. As the ground opens they successively deploy, and again perfect the line. These columns are always behind the line, and march closed up. The formed part of the battalion, whether advancing or retiring, continues to move on at the ordinary pace, and in proportion as the obstacles increase or diminish, will form or column parts of the line increase or diminish.

The general attentions directed to be observed on these occasions are, that the column formed shall be of sub-divisions, if the ground will admit. The first subdivision that is obliged to double, will be directed to which hand by the commander of the battalion, the others, as they successively double, will, in consequence, place themselves behind it, and behind each other, and the hand first doubled to, will be that which presents the opening most favorable to the subsequent march, and formation, and which the commanding officer will always hold in view, and order accordingly. The interrupted body will double on one or both flanks, according to circumstances, and the order it receives. Obstacles that impede the flank towards the centre,—Obstacles that impede the centre, or a central part of a wing, will, if consistent—
ble, occasion two columns to be formed, from the centre towards the flanks. The columns will follow a flank of such part of the line as is not impeded; and either in doubling into columns, or extending into line, the rear divisions will conform to the movements of their then leading one. No part less than the front of the column doubles or moves up, and when half or more of a battalion must be thrown into one column, it will be ordered by companies. 

Obstacles whose fronts are parallel to the line. When such occur, the divisions impeded must all at once double behind such one, or two, other divisions as clear to advance. 

Obstacles whose first points continue to increase as the line advances. In these cases the doubling is successive, beginning with that division which is first interrupted, and continuing as it becomes necessary, till the column can advance in clear ground. 

Obstacles paried, or diminished. When obstacles are of such a nature as to permit of the complete extension at once into line: the whole column performs it by the commands and deployments of the close column on the front division, which then makes part of the line. But when obstacles diminish by degrees only, then the divisions of the column must come up into line successively as the ground opens, and the remainder of the column must, diminishing, shift toward the obstacle, in the same manner as it before shifted from it in increasing.

Obstacles that are passed in presence of an enemy. Under these circumstances if the battalion, in advancing, should be obliged to fire, it halts in the situation it is then in, executes such firings as are ordered, and again advances. 

If the battalion, in retiring, is pressed by the enemy, the part in line will halt, front! the part in column will move on till the last division arrives in line, and will then halt, front! The firing that is ordered, will be executed; and when it is again proper to retire, the whole will face about, the part in line will march, and the columns will also be put in march when the line arrives at their head. 

Obstacles whose points of opening are narrow, and continue so, more or less. In such cases the interrupted division, will be ordered to face either to one or both flanks, and closely to follow in line such parts of the battalion as are not broken: the filing will increase as the obstacles increase, but as they diminish, file after file will successively and quickly move up to their place till the whole battalion formed; and during this operation the leading file will always remain attached to the flank of the part in line. —The same rules that direct the doubling in column, direct the doubling by files; when a subdivision files, it will be from the flank only; when a company files, it may be from both flanks; and if a larger front than two companies is interrupted, it then doubles into column. Where the obstacles are of small extent, but frequently occurring, this mode is the readiest that can be applied in advancing; but in retiring it cannot be of use, if the enemy be at hand to press upon the battalion; and therefore the passing by column is to be looked upon as the general method. For further explanations on the important operations of passing obstacles, we refer our military readers to Am. Mil. Lib. Article 10.

Obstinate, in a military sense, determined, fixed in resolution. —Hence obstinate resistance.

Obstinately. Persuading. The two armies fought so obstinately, that night only could separate the combatants.

Obstination, Fr. Obstinance. Stubbornly, inflexibly, with unskilled determination.

Obstinate, Fr. To persist in any thing.

Obstruction, any difficulty or impediment, opposing the operations of an army, &c.

Obstus. Fr. Obustes.

Obstuse angle. 

Obtusangular, having angles larger than right angles.

Obstuse angles. 

Obstusangular. 

Obstinate angles. 

Obstinately. 

Obstinately. 

Obstinate, Fr. To persist in any thing.

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The misfortunes of the people have been occasioned by the war, or the war has been the occasion of the people's misfortunes. The French make a nice distinction which may hold good in our language, between cause and occasion. "Il n'est pas la cause, il n'est que l'occasion." He is not the cause, he is only the occasion, the innocent occasion of it. It is not fated for one occasion occasion or another to occur; he took offence, or grew angry on a very slight occasion.

To serve de l'occasion, Fr. to take advantage, or make a proper use of time and opportunity. A French writer has very properly observed, that to seize with dexterity occasions as they occur, is a certain proof of courage and ability, especially in the general of an army. Opportunity or occasion, according to Tacitus, is the mother of events. Oppor tumus nactus conatus transitus rerum. One complete and decisive victory leads us to a multiplicity of enterprises and great designs, all of which grow out of the first triumph. A full and decisive victory, by which the country is left entirely at the mercy of the conqueror, must necessarily throw the inhabitants into confusion, and open fresh avenues to conquest; for one opportunity or occasion well embraced and executed upon, becomes the source of others. There is not, perhaps, in human contingencies any thing which spreads itself so rapidly, or ought to be so little neglected. An enterprise which grows out of another, though it be in reality more arduous to get through than the one which produced it, becomes necessary in its execution; and yet, how many brave and skilful generals have existed, who could not make a proper use of opportunity? In reading over their gallant exploits, one would be led to believe, that all their knowledge consisted in merely knowing how to fight. We have seen them, with unexampled intrepidity, doing every thing that man dares to do, in the field of battle: we have seen them make a decisive blow, and place victory within their grasp; and when they were in the actual possession of all they fought for, we have seen them suddenly relax, give their enemies time to breathe, and finally lose all the fruits of their victory. The courage and promptitude which they manifested in a decisive battle, were the effects of a transitory impulse which was soon wasted and extinguished.

Hannibal, so much celebrated for his bold enterprise against the Romans, was guilty of this error. After the battle of Cannae it rested entirely with himself to take Gustavus Adolphus made the same mistake. Had he, after having won the battle of Leipsic, hung upon the rear of the discomfited Imperialists, pushed and harried them to the gates of Vienna, there is little doubt of the consequences which must have ensued. The emperor Ferdinand was as weak in opportunity or occasion, as the conqueror, must necessarily throw the inhabitants into confusion, and open fresh avenues to conquest; for one opportunity or occasion, according to Tacitus, is the mother of events. Oppor tumus nactus conatus transitus rerum. One complete and decisive victory leads us to a multiplicity of enterprises and great designs, all of which grow out of the first triumph. A full and decisive victory, by which the country is left entirely at the mercy of the conqueror, must necessarily throw the inhabitants into confusion, and open fresh avenues to conquest; for one opportunity or occasion well embraced and executed upon, becomes the source of others. There is not, perhaps, in human contingencies any thing which spreads itself so rapidly, or ought to be so little neglected. An enterprise which grows out of another, though it be in reality more arduous to get through than the one which produced it, becomes necessary in its execution; and yet, how many brave and skilful generals have existed, who could not make a proper use of opportunity? In reading over their gallant exploits, one would be led to believe, that all their knowledge consisted in merely knowing how to fight. We have seen them, with unexampled intrepidity, doing every thing that man dares to do, in the field of battle: we have seen them make a decisive blow, and place victory within their grasp; and when they were in the actual possession of all they fought for, we have seen them suddenly relax, give their enemies time to breathe, and finally lose all the fruits of their victory. The courage and promptitude which they manifested in a decisive battle, were the effects of a transitory impulse which was soon wasted and extinguished.

Hannibal, so much celebrated for his bold enterprise against the Romans, was guilty of this error. After the battle of Cannae it rested entirely with himself to carry Rome. He had only to follow up his first blow, to take advantage of the consternation of the Romans, and to pursue them to their capital. By so doing he would have made use of the glorious occasion which fortune had thrown into his hands by the first victory, and would not have been driven to the necessity of endeavoring to obtain the original object of his enterprise, by fighting several battles that proved abortive of it. Adherbal on this account, after having failed in his attempt to persuade Hannibal to pursue his end of the occasion of the people's success, and converted the means, which so glorious an occasion offered, into prompt and vigorous pursuit, he would not indeed have reaped additional laurels in the plains of Carthage, among the ancients, was on occasion. This adjective is used in a different sense among the French, or to what it is with "occasion"; anything that occasions an event. OCCIDENT, Fr. The west. OCCUPE, Fr. to be taken possession.
of. Les environs furent occupés par des
troupes légère; les neigboring places
were taken possession of by some light
troops.

To OCCUPY, to take possession of
any work or post:

OCTAEDRE, Fr. Octaedre, one of
the five regular bodies which is terminated
by eight equilateral equal triangles.

The octagon, in fortification, is well cal­
culated in its ground for the constmctioa
of large towns, or for such as have
the five regular bodici which is terminated
in or go out of the ,;arrison without
means of this disposition no person could
be in some ot the curtains. By
that the entrance and outlet of the rivers
view from the flanks of the neighboring
ion, as the centinels must have a full
the governor's or commamlant's permis­
tors _de /c11g dam «-!lvr,;

"OCTAVION, (cor, Fr.) any male or
female that is born of a quartcron and a
white woman, or of a white man and a
quart-tone.

OCTONS, Fr. a mathematical instru­
ment, which contains 45 degrees or the
eighth part of a circle.

OTOEDRICAL, having eight sides.

OTOESTYLE, the face of a building
containing eight columns.

ODA. The different corps or com­
paines into which the janissaries are divid­
ed, bear this appellation. The word it­
self means a room, and the companies are
so called from meeting separately.

ODEN, ODIN, or WODEN, a deity so
called in ancient times among the Swedes, and Goths. He was their god of
war, as cannon, mortars, swords, pistols,
and against another army, or invade the domi­
tions of cluty, &c. may be called military
offences. The principal ones are specified
in the Articles of War. No officer or sol­
cier can be tried twice for the same of­
fence, unless in case of an appeal from a
regimental to a general court-martial; nor
can any officer or soldier be tried for any
offence committed more than two years
before the date of the warrant for trial;
except in cases where the offenders were
not amenable to justice in that period,
when they may be brought to trial any
time withi: two years after the impend­
ment ceased.

OFFENSIVE War. Military acts of ag­
gression constitute what is called an of­
densive war. Those who assail an oppo­
site or adverse army, or invade the domi­
nions of another power, are said to wage
an offensive war.

OFFENSIVE Weapons, are such as are
fit for the purpose of carrying on offensive
war, as cannon, mortars, swords, pistols,
musquets, &c.

OFFENSIVE Fortification. See Ap­
proaches, Siege, &c.

OFFICE, in a military sense, signifies
any place or apartment which is fixed or
appointed for officers, clerks, &c. to at-

department—assistant
and inspector's office—commander in
chief's office—paymaster general's office,
&c. &c.

Department and board are sometimes
ynonymous terms. Sometimes the term
office is applicable to places where mil­
itary business is transacted, viz. Clo­
ing department, board of general officers,
&c. The word council is used by the
French in the latter sense, the term Cun­
sew in almost all others.

Office of the inspector-general,
Office of the comissary-general of
stores, &c. to the forces at home.

Office of the military agent.
Office of the superintendent of mil­
tary stores.
Office of the advocate-general.
Office of the physician-general.
Office of the comptroller. Since the
whole system of conducting the extraor-
dinary expenses of armies serving abroad
has undergone a careful revision in the
British service, among other wise sug-

gestions it has been recommended, 1st.
That no military officer should himself
have a property, or interest, in any arti-
document, or of which his duty obliges him to pro-
provide for the public service. The object
of this suggestion has in some instances
been fulfilled; but it still remains with
the commander in chief, and with those
persons particularly concerned with army
matters, to recommend its adoption in the
clothings of the different regiments, regu-
lar as well as militia. The property
which the colonels manifestly hold in this
article, exposes the most honorable char-
acter to unjust imputations, and affords
ample means to the base and selfish
of growing rich at the expense of public
virtue. 2. That no payment should be
made by the military officer belonging to
any department (such as quarter, or bar-
rack master general, inspector of hospi-
tals, commanding engineers, &c.) but that
every expense should be paid by the de-
puty paymaster general, in pursuance of
a warrant from the commander in chief.
3. That all vouchers, proving any pay-
ments, should be subject to a careful and
speedy examination by persons appointed
for the purpose, on the spot where the ex-
pense was incurred.
In the present war, the whole of the
extraordinary expenses of an army serving
abroad, are conducted by the means of a
commissary general, who receives and has
charge of all provisions and stores sent for
the use of the troops from this country;
who purchases, or provides, under the di-
rection of, or in concurrence with, the
commander in chief (without whose au-
thority no service can be performed, or ex-
pense incurred) such articles as may be
more conveniently obtained on the spot,
and who is responsible for all moneys, pro-
visions, or stores, whether actually used,
damaged, lost, destroyed, or plundered,
with the condition of procuring proper
certificates to prove every mode of their
consumption, before he can be discharged
therein.
A commissary of accounts also attends
each army where the numbers are of suf-
ficient importance, with a proper esta-
blishment, for the purpose of examining
and controlling accounts on the spot;
both acting under specific instructions.
4. All monies, for the ordinary services
of the army, are obtained by the means of
bills drawn by the deputy paymaster
abroad on the paymaster general, which
bills are negotiated by the commissary
general, who is obliged to note the rate of
exchange on the bill.
All monies, for extraordinaries, are ob-
tained by drafts of the commissary gen-
eral on the treasury, which, on their arri-
val, are accepted, if drawn conformably to
the rules laid down, as being in payment
for services ordered by the commander in
chief, and the value of which have been
previously examined and ascertained by
the commissaries of accounts on the spot.
The commissaries of accounts make re-
turns of their examination; and on these
documents the comptrollers of the army
accounts found the best enquiry into the
account which the commission general, who receives and has,
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board, been transferred to that office; and the building of barracks belongs now to the barracks department, except when barracks are ordered to be built within a fortification.

The master general, who, in his military character, is commander in chief over the artillery and engineering, has, in his civil capacity, the entire control over the whole ordnance department: he can alone do any act, which can otherwise, if he does not interpose, be done by the board. He can order the issue of money, but that order must be executed in the usual mode, by the clerk of the board.

The lieutenant general, who is second in command over the artillery and engineers, is, in his civil capacity, the first in the whole executive power devolves on the board; and it belongs to them, which comprehends four other principal officers; the surveyor general, the clerk of the ordnance, the store-keeper, and the clerk of deliveries. During the absence of the master general, or the vacancy of the clerk of the ordnance, the clerk of the artillery and engineers, houses, in his civil character, or which are supposed to have been paid, but which were not foreseen when the estimate for the past year was made up. Among these unforeseen expenses are included various exceeding, which have happened in the individual services voted in the past years ordnance estimates; to which are added, such sums as may be necessary to make up the deficiency of the sum directed to the ordnance use from the naval service.

Officers belonging to the military branch of the ordnance.

Corps of Royal Engineers.

One master general, one lieutenant general, one chief engineer, and colonel, six colonels, six lieutenant colonels, fifteen captains, thirty captain lieutenants, twenty-seven first lieutenants.

Officers belonging to the Royal Military Academy at Woolwich.

One governor, one lieutenant governor, one inspector, one professor of mathematics, one professor of fortification, one mathematical master, two mathematical masters, two French masters, one assistant fortification master, two drawing masters, one engraving master, one dancing master, two model makers, one clerk. — Salaries unknown.

Self-Letter Office. During the continuance of the British army in Holland, a mail was made up every Tuesday and Friday night, and forwarded to Yarmouth, where two packets, taken from the Cuxhaven station, were appointed to convey them to the Helder. A gentleman (the deputy comptroller of the foreign office) was sent to the head quarters, as army post master, and in like manner made up two mails per week, but they were sometimes detained for despatches.

On application from the duke of York, the letters of soldiers (being subscribed by the commanding officer) were suffered to pass at the reduced charge of one penny, although that sum was not paid at the time of the letter being put into the post-office, as the act of parliament on the subject requires.

The following particulars, relative to this useful and humane establishment, were issued from the general post-office, on the 8th of September, 1799.

"Notice is hereby given, that letters addressed to persons serving with the army, under the command of field marshal the reigning highness the Duke of York, will be received at the Ship-Letter office twice, instead of once in the week, viz: on Tuesday and Friday from ten in the morning until ten o'clock at night, and on Thursday, as mentioned in the advertisement from this office of the 21st instant."

And that such letters will be regularly forwarded in vessels from Yarmouth to the Helder Point on the same days as the mails are sent to Cuxhaven.

"Letters by this conveyance will be chargeable with an half-rate of postage, under the act of the 29th of his present majesty, of sixpence each single letter, one shilling double, one shilling and sixpence treble, and so on in proportion, excepting simple letters to and from private soldiers and sailors, which are chargeable
with one penny only, under the act of the 33d of his present majesty.

And that newspapers will also be forwarded at a rate of three pence upon each, provided such paper is sent without cover, or such covers open at the sides.

Transport Office, in the British service. The transport-office is newly created, and was instituted in July, 1794, at first for the superintendence of the transport service only; but to that employment has since been added the management of the prisoners of war, in health, at home, and abroad.

The immediate duty of this office, so far as the muster of the transport-service, used to be performed by the commissioners of the navy; except in some instances, where the ordnance, or other departments hired the transports wanted for their own immediate service; and the present transport board have pursued the modes of employing transports which were practised by the navy board, when the transport service was under its directions; but it was thought expedient to constitute a distinct board, to transact the business of that extensive branch of the naval service; and from the unparalleled extent to which that service has been carried during the present war, it is highly proper that every possible check and control should be put over so vast an expenditure of money.

Since the institution of this board, which took place in July 1794, to 23d June 1797, the tonnage of vessels hired as regular transports for four or six months certain, amounted to 99,656 tons; the tonnage of the vessels hired on hire for service amounted to 178,560 tons; making the whole number 278,216. The total expenditure for this service, during this period, amounted to £3,838 13s. 6d.

The total expense of this establishment for the year 1790, is stated to have been as follows:

Salaries and allowances £3,838 13s. 6d
Contingent expenses 5947 12s. 2d
Travelling charges and extra pay to officers on distant duty £23 15s. 6d

Total paid by the public £3,249 19s. 8d

Deducting from the sum of £3,349 19s. 8d, the taxes paid to government £534 7s. 6d, and the balance carried to 1797 £592 15s. 0d.

The expense to the public for the year 1796, appears to have been £12,737 4s. 8d.

In a schedule of the fees paid at the war-office, and a paper describing the application thereof, it appears, that in certain proportions to the following clerks and officers:

1. Deputy secretary at war.
2. First clerk.
3. Principal clerk.
4. Ditto.
5. Ditto.
6. Clerk for the entry of commissions.
7. Clerk for accounts of deserters.
10. Assistant to the examiner of army accounts.

War Office, British service, the nature of the accounts which come into the war-office, the first head consists of the annual accounts of the ordinary and incidental charges of established regiments; the second regimental extraordinaries, or incidental expenses more properly belonging to established corps than to the army in general, which latter is known by the term, "extraordinaries of the army." All claims made by the regimental agents come under the inspection of the "examiner of army accounts," to whose office they are transmitted of course, in virtue of a general delegation of that duty to him by the secretary at war: after his examination and report, the secretary at war, in many instances, orders partial issues of money by letter to the pay master general. No final payment is made, except under the authority of a warrant countersigned by the secretary at war, and in most instances by three lords of the treasury. The regimental agents account finally to the secretary at war.

They are likewise accountable to him and to the commander in chief, for every species of mismanagement or misconduct with respect to the officers and soldiers, &c.

The forms under which all payments derived from the establishment are conducted, consist of the following papers:

1. The establishment of a regiment.
2. The warrant from the war-office to make out debentures, with the state of charges annexed.
3. The debenture made up at the pay-office.
4. The first or clearing warrant.

32
5. The pay-office state.

Officers, in a military sense, are of several denominations and ranks, viz.

Commissioned Officers, are those appointed by commission; such are all from the general to the colonel and ensign, both inclusive.

Warrant Officers, those who have no commissions, but only warrants from such boards, or persons, who are authorized by law to grant them.

Non-commissioned Officers, are sergeant majors, quarter master sergeants, serjeants, drum and fife majors, who are appointed by the commanding officers of regiments, and by them may be reduced without notice, but it is not in the power of any captain of a company, or other subordinate officer, to reduce them. But it is the duty of all officers, to take notice of any negligence, or impropriety of conduct, in the men, whether on duty or off duty, although the person, or persons offending, should not belong to their particular regiments. All neglects of duty, they are immediately to report to the commanding general, and they are enjoined to confine, and to report to the commanding officer of the regiment in which they belong. Any non-commissioned officers or soldiers, they may detect in disorderly practices, or who appear out of their quarters, conducting themselves either in point of behaviour or appearance, in a manner unbecoming soldiers.

Brevet Officers, in the British service. One who in doing duty with other corps takes rank according to the commission which he holds, and which is superior to the one for which he actually receives pay, or by which he can do duty in his own. A captain lieutenant, for instance, in the 23rd regiment of foot, who has the rank of brevet major in the army, may, when that corps does brigade duty, command every captain on service with him. The word brevet is taken from the French, and in the instance before us means rank without pay. During the French monarchy there were various instances in which individuals held posts of honor during the king's pleasure, or during their own natural lives. Brevet de capitaine signifies a person a commission or place for the benefit of a deceased person's wife, heirs, or creditors: this was called brevet de retraite. So that the word brevet, though limited to one sense amongst us, was applicable to rank and emolument among the French. Hence brevet signified to give a person a commission, or place, or emolument; to invest him with honorary rank; or to authorize him to receive a pension. Brevet de capitaine, signifies the commission, or rank of a captain.

Civil Officers, being to the British laboratory at Woolwich:

One comptroller, one chief fire-master, one assistant fire-master, one inspector of gunpowder manufactures, six clerks, one extra clerk, one surgeon, one inspector of artillery, one assistant ditto, one clerk and draftsmen, one clerk, one proof master, one searcher, one instrument keeper, one modeler, one assistant, one constructor of artillery carriages, one assistant to ditto, one second assistant, and two clerks.

Officers belonging to the British military hospital at Chelsea:

One superintendent, one modeller, one clerk, one draftsmen, one astronomical observer at Greenwich, salary unknown. To these may be added, the officers belonging to the different out ports and garrisons that are subject to the British government.

Commissioners and Officers of the British Bank at Clapham:—

The civil department consists of:

The president of the council. First lord of the treasury. The two secretaries of state. The paymaster general of land forces. The secretary at war. The two comptrollers of army accounts. The governor and lieutenant governor. Salaries unknown.

The military department consists of:

Governor. Lieutenant governor. Major. Adjutant. Treasurer, who is the paymaster general for the time being. Deputy treasurer, one clerk, two chaplains, one
Field Officers belonging to the several regiments of militia in Ireland.—By an act passed on the 24th of March 1801, the number of field officers of this description has been increased by adding one additional major to such of the Irish regiments as consist of eight companies or upwards, and one additional major to such of the said regiments as consist of seven companies or under. The following counties consist of eight companies or upwards:—Antrim, Armagh, North Cork, South Cork, city of Cork, Donegal, city of Dublin, Galway, Kildare, Longford, county of Limerick, Londonderry, South Meath, Monaghan, Roscommon, Tipperary, Tyrone, Waterford, and the county of Wicklow. The counties consist of seven companies, or are under seven companies. All such additional field officers, if qualified, in manner as field officers of the same rank in the militia now by law required to be, and not disapproved by the lord lieutenant, or other chief governor or governors of Ireland, within fourteen days after such certificate shall have been laid before him or them, shall, to all intents and purposes, be deemed and taken as field officers of the respective regiments in the respective ranks to which their commissions shall respectively appoint them; and shall have the same powers according to such commissions respectively, that other field officers in the militia now have, and shall have rank, and receive pay according to such rank from the dates of their respective commissions, in manner and form as the field officers of the militia regiments of Ireland are now entitled thereto.

Officer in waiting. The officer next for duty is so called. He is always mentioned in orders, and ought to be ready for the service specified, at a minute's warning. He must not, on this account, quit the camp, garrison, or cantonments.

Officer of the day. An officer whose immediate duty is to attend to the interior economy and good order of the corps to which he belongs, or of those with which he does mixed duty. The following regulations will explain the nature of that duty when troops are encamped:

The officers for daily duty in camp, independent of guards, will be a general or majors of the day, according to the circumstances and strength of the camp. In large camps there will be a lieutenant general of the day, and a major general for each wing, or one major general of cavalry, and one of infantry; and majors of brigade in the same proportion, a field officer per brigade, and a captain and subaltern of the day per regiment; and an adjutant and quarter master of the day per brigade.

The general of the day is to superintend the regularity and discipline of the camp; in every particular: he is to visit the guards of the camp and the outposts (unless the latter are put under the command of some particular officer): he is to call out and inspect the lying piquets, as often, and at such times as he thinks proper: he is to receive all reports in camp, and make immediate communication of any extraordinary occurrences, to the commander in chief.

The captain of the day of each regiment superintends the cleanliness and regularity of the camp of the regiment: he attends the parading of all regimental guards, orders the roll to be made out, and reports everything extraordinary to the commanding officer.

The subaltern of the day assists the captain in his various duties, and reports to him any irregularity, which may come to his knowledge.

The captain and subaltern of the day, are each to visit the hospital at uncertain hours, the captain is to take his report of the state of the hospital to the commanding officer of the regiment.

The regularity of the men's messing is an object of primary importance. The captain or subaltern of the day must visit, and inspect the kettles, at the hour appointed for cooking, and no kettle is to be taken from the kitchens till this inspection is made, and the signal is given by the drum for the men to dine, which should be at the same hour, throughout the camp. Independent of this regimental arrangement, the officers of companies must daily and hourly attend to themessing and every circumstance of the economy of their companies, in camp more particularly than in quarters.

The adjutant of the day, of the brigades, is to assist the brigade major in the various details of his office; and in the absence of the brigade major, to receive and execute all orders; it may frequently be necessary for him likewise to attend for orders, at head-quarters. It is the duty of the quarter master of the day, of the brigade, to attend to the cleanliness of the camp.
to take care that all broken glass and filth of all kinds is removed, for which the quarter master of each regiment is responsible, as far as the camp of his regiment is concerned.

The officers on duty and those in waiting, as next for duty, who are always to be mentioned in the orders of the day, are constantly to remain in camp, or within their cantonments. No officer is, on any account, to sleep out of camp, or cantonments, without leave.

Officers making written report, are to sign them, specifying their rank, and the regiment to which they belong.

All orders relating to the men are to be read to them by an officer per company, at the next parade after such orders are given out.

When there is a field officer of the day, it is his duty to visit all guard quarters, during the day and night, in the morning, on the dismantling of the guards, he will collect the reports, and carry them to the governor or commandant, together with any observations he may himself have made, in the course of his duty in the preceding day. When there is no field officer of the day, the reports will be collected, and delivered to the governor, by the captain of the main guard. Each regiment must have an alarm post assigned to it, to which it will repair in case of fire, or any other extraordinary alarm either by day or by night.

Marine Officers, all those who commanded that body of troops employed in the sea service, under the direction of the lords of the admiralty.

OFFICIAL, all orders, reports, applications, memorials, &c. which pass through the regular channels of communication, are called official.

OFFICER, Fr. See Officer.

OFFICER sur terre, Fr. a land officer, or any commissioned person in the land service.

OFFICIER du genie, Fr. an engineer.

OFFICIER sur mer, Fr. a sea officer, or any commissioned person in the sea service. The term, however, is not confined to this class only, it likewise signifies the master, pilot, boatswain, &c. of a ship, in which case the latter are called officers marins, in contradistinction to the former, who arestyled officier de la marine, or persons who have naval rank, and whose immediate business is to fight their ships. These consisted, in the old French service, of admirals, vice-admirals, lieutenants generals, commanders, captains of ships, or post-captains, majors, captains of garrisons, captains of fire ships, captains of stores or ordnance vessels, post-captains, to which may be added, capitaine en second, together with the lieutenants and ensigns de vaisseau, whether actually employed, and bearing rank, or being only en second. These were besides various employments and situations under the old French government, which entitled individuals to the appellation of officer. Those of a military or naval nature were generally and specifically as follows:

OFFICIER de guerre, Fr. a military man or officer.

OFFICIER dans les troupes, Fr. any person holding a military situation in the army.

OFFICIER général, Fr. a general officer.

OFFICIER subalterne, Fr. a subaltern officer.

Les bascs OFFICERS, Fr. commissioned officers.

Les bascs OFFICERS, Fr. a non-commissioned officer.

OFFICIER de la garnison, Fr. an officer belonging to the garrison of a town, or fortified place.

OFFICIER en garnison, Fr. Any officer in garrison.

OFFICIER au régime des garde, Fr. an officer belonging to the guards.

OFFICIER au régime des garde, Fr. During the existence of the French monarchy a certain number of individuals permitted to wear the uniform of a regiment, without being otherwise connected with it. These were divided into two classes, viz.

OFFICIER à la suite d'un régime, Fr. Officers nominally attached to a regiment. Of this description were the gentlemen appointed by the German princes who were in alliance with France. It is mentioned, as a fact, that before the French revolution took place, there were 42 lieutenant-colonels à la suite du régime Des Ferts. The prince of that name having been permitted to extend this strange privilege to any number, provided the officers so distinguished, never went into the town where the regiment lay, or interfered with regard to quarters, &c.

The other class consisted of noblemen and gentlemen, who were appointed by the court of Versailles, and received their brevets from the war-ministries. These were called officiers à la suite de toute l'armée, or officers bearing brevet rank without being attached, even nominally, to any specific corps.

This institution, though extravagant, was nevertheless calculated to maintain the precedence of military persons, and to cherish those military ideas which, by thus becoming national, conducted in a great measure to the present military character and triumphs of the French.

OFFICIER dans la marine, Fr. an officer in the marine service.

OFFICIER de marine, Fr. a marine officer.

OFFICIER maritime, Fr. See Officer sur mer.

OFF. Reckonings, a specific account called, which exists between government and the colonels of British regiments for the clothing of the men. This account is divided into two parts, viz. gross-off-reckonings, and net-off-reckonings. See Off-reckonings consist of all the
pay of the non-commissioned officers and private men, above the subsistence.

Net off-reckonings, are the produce of the gross off-reckonings, after the warrant deduction of one shilling in the pound for the agent, are made at the pay-office. The balance of the pay of the officers, over and above their subsistence, after the warrant deductions are made, and the credited pay, if there is any, is charged to the officer, is called clearings; which are paid by the paymaster to the agent, who pays them to the officers, and there finds his twopence.

Colonels of regiments either pay the clothier ready money, or allow him interest for forbearance. But no colonel can make a valid assignment of the off-reckonings, till the clothier has exhibited to a board of general officers, appointed by his majesty for that purpose, the patterns of each species of clothing, he is to provide; began to use this epodoma a little before the Olympius, at Olympia, acoly of Elia, near Olympia. The Greek likewise call them elia d'agora.

OIL. Every soldier should be supplied with a given quantity of oil and emery, for the purpose of cleaning his arms accouterments, &c.

OLYMPIAD, in ephorology, the space of four years, for on the 5th the Olympic games were celebrated in honor of Jupiter Olympus, near Olympia. The Greeks began to use this quinaria about a little before the building of Rome.

OLYMPIC GAMES, were instituted by Hercules, A.D. 776, in honor of Jupiter Olympus, at Olympia, city of Elis, in Peloponnesus. They were celebrated every four years, about the summer solstice. The design of them was to accustom the young military men to running, leaping, and every other military exercise.

OMIERE, (fr. sider à l'embar, Fr.) This term is in use among the French founders of artillery, when they put the clay or putty, which serves to form the cannon moulds, out to dry, without making any fire for the purpose.

OMRA, or OMHRA, In. plural of om, a lord. They were persons of considerable consequence in the dominions of the great Nubel. Some of them had command of 1000 horse, others of 2000, and so on to 20,000: their pay being regulated according to the number of their horses. The governors and great officers of state were generally chosen out of this body.

ON, a preposition frequently used in military exercises. It precedes those words of command which direct the change of formation of bodies of men upon points that are fixed, viz.

By companies or the left backwards,
cer uses the term *left wheel into line*, and vice versa; the preposition as is here understood: for it is evident, that in breaking into column the component parts of a line wheel as much from a given point, as they do to a given one, when the columnzen-ros into line. Whereas by using on, or understanding it to be used, when, for the sake of abbreviation, it is omitted, we preserve the true meaning of the preposition, keep the men in the recollection of the necessary adhesion, and show, that whether you wheel backwards or forwards, from line into column, or from column into line, there is one invariable fixed point on which you move. It is more proper to say, on the right or left forward into line, in lieu of to.

**ONAGRA.** (Onager, Fr.) A warlike machine, which was used by the ancients to the purposes of different sizes. It is mentioned by Vegetius.

**ONDECAGON.** A figure of eleven sides and angles.

**OPEN, assault, storm, attack.**

**OPEN, in military movements and dispositions** is frequently used, but it is seldom applicable to any operations in face of an enemy; the ranks, &c. on such occasions being generally compact and close. In formation, the word open is opposed to close, viz. open column, open distance, open order. It also constitutes part of a word of command; as rear ranks take open order; in opposition to rear ranks take close order.

**Open distances in column.** (Distances entieres en colonne, Fr.) The intervals in these cases are always equal in depth to the extent in front of the different component parts of the column.

**Open flank, in fortification, that part of the flank, which is covered by the oriljon.** See FORTIFICATION.

**OPENING of trenches, the first breaking of ground by the besiegers, in order to carry on their approaches towards the place.**

**OPERATIONS de guerre, Fr.** See MILITARY OPERATIONS.

**Military operation.** Military operations consist in the resolute application of concerted measures, in secrecy, dispatch, regular movements, occasional encampments, and desultory combats, or pacts, and sieges.

**Line of operation.** All the forward movements of an army for the purpose of attacking an enemy, penetrating into a country, &c. may be properly called a line of operation. There is so intimate and so necessary a connection between this line and the communication, that no army can be in security, let its temporary successes be what they may, without a strict and careful attention being given to their relative points of continuity and correspondence. The line of operation in a place is partial and extremely limited, so that of communication; but upon the large scale of war these two lines are of considerable extent and importance. No man, in fact, can be called a good general, or even an officer, who carries his views so far forward as to venture upon a long line of operation, without having previously secured his line of communication, by a perfect knowledge of the countries through which he moves, and having his flanks thus thoroughly covered, that he may fall back or retreat according to circumstances. See Amer. Mil. Lib.

**OPINION.** In military proceedings that regard the interior government of an army, this word signifies decision, determination, judgment that seem to have upon matters that have been laid before a court-martial, or court of enquiry. Hence, the court-martial having duly weighed the whole matter before them, are of opinion, that ———— is not guilty of any part of the charge preferred against him. It is mentioned by Vercius.

**OPINION, Officers on courts-martial give their opinion by seniority, beginning with the youngest in rank.**

**OPINION, abstractedly considered, may be defined an assent of the understanding, with some doubt or distrust of the contrary.** In a political sense, it is the acquiescence of the mind to certain principles. In some instances opinion and principle are synonymous terms. Hence French revolutionary opinions, or revolutionary principles.

**A war of Opinion, (Guer d'opinion, Fr.)** This expression has grown into familiar use since the commencement of the French revolution, and was never, perhaps, so strongly illustrated as by the perseverance of the French people. Hence also the war commenced against France, as instigated by Burke and the emigrants, was a war against the opinion, which afterwards turned the corrupt abuses of the old French monarchy, to color its atrocity it was called a war against Jacobinism—a war in support of religion and order—a war in support of regular government—at length a war of extermination; but experience has shown, that the influence of opinion is paramount to every consideration in life. Friend, parent, and relation, have given way to the superior calls of public duty, growing out of and sanctioned by public opinion.

**OPINION, Fr.** This word is variously used among the French, and as we have already observed, is now generally attached to the contest in which they have been engaged for the maintenance of certain principles that seem to have altered their character. The nation at large, in fact, has taken up an opinion, grounded upon certain principles, which are opposite to those their forefathers had implicitly followed for 1400 years. When Great Britain formed a part of the well-known coalition, the preservation of the balance of Europe was the estensible cause for entering into hostilities against France; so that the war in 1792, &c. might not improperly be called a war...
OPINION must be respected or attended to; the power, the dominion, the influence of opinion. Opinjon governs all the world. When the allied armies under the command of the Duke of Brunswick, in 1792, were within a few days march of Paris, it was observed by a firm adherent to the royal cause: Que malgré l'air imposant d'une telle force, au combiné corn, on avait tout a craindre pendant qu'il existait un ennemi combattant, aussi terrible qu'était l'opinion. That notwithstanding so formidable a force or combination, every thing was to be apprehended so long as that terrible enemy, opinion, remained to be combated against.

OPPIUM, a juice, of the resinous, partly of the gummy kind. It is brought from Natolia, Egypt, and the East Indies, produced from the white garden poppy, with which the fields of Asia are in many places sown. The first effect of opium is making the person who takes it cheerful; it removes melancholy, and dissipates the dread of danger. The Turks always take it when they are going to battle; it afterwards quiet's the spirits, eases pain, and disposes to sleep. A remarkable instance of the powerful influence of opium over the natives of the East is related by Mr. Orme, in his history of the Cama tic, page 270. His words are: the enemy remained quietly until noon, when having sufficiently intoxicated themselves with opium, they began to swarm out in great numbers; but the field-pieces (which were served by Europeans) kept them for some time at a distance, until the shot doing execution. During the causen a party of the nabob's sepoys crossed the river, and taking possession of a small choultry, an inn house for the accommodation of travellers, so called in India at a little distance to the right of the other, began to fire from this unsubstantial post, upon which a body of 500 marathas horse galloped up to attack them; but before they arrived the sepoys took flight; several of them were cut to pieces, and the rest re-crossing the river ran into the city; the marathas encouraged by this success, and still assisted with the opium, now galloped up towards the entrenchment of the great choultry, where the men, suffering to come so near, that several of them made use of their sabres across the parapet before the troops within gave fire, which then began, and was continued by the four pieces of cannon on the other side of the river, killed and wounded a great number of men and horses, and obliged the enemy to retire in confusion; in this instant an officer unadvisedly took the resolution of quitting his post, and passed the river, in order to give captain Dalton (who commanded the detachment) some information concerning the artillery; some of the soldiers seeing this, imagined that he went away through fear, and concluding that things were worse than appeared to them, followed his example and ran out of the entrenchment; which the rest perceiving, a panic seized the whole, and they left the post with the greatest precipitation, notwithstanding they had the minute before given three huzzars, on the retreat of the marathas: a body of 3000 mysore horse, who were drawn up on the bank immediately galloped into the bed of the river, and charging the fugitives with fury, cut down the whole party excepting 13 men; flushed with this success, they made a push at captain Dalton's division on the other side. All these motions succeeded one another so rapidly, that he had hardly time to put his men on their guard; more especially as many of them had caught the panic, from having been spectators of the massacre of their comrades; however, some of the bravest hearten to his exhortations, stood firm by the artillery: their behaviour encouraged the sepoys, who made a strong fire from behind the low wall in their front, with which accompanied by the grape shot of the four field pieces, soon abated the ardor of the enemy, and obliged them to retreat, leaving behind a body of 3000 men in the bed of the river, where he remained until he had collected the dead and wounded. Not a man who escaped could give any reason why he quitted his post, all of them acknowledging that at the time when they took flight, only one man in the intrenchment was wounded, and that they had nine barrels of ammunition.

OPPORTUNITY. In addition to what has been said respecting occasion, which is nearly similar to opportunity in its import, we shall extract the following account of the latter, which was also honored as a goddess among the Persians.—Opportunity was represented by them as a naked woman, with a long lock of hair before, but bald behind, to intimate, that opportunity is not law hold on when it offers, and they soon slips away; also standing with one foot on a wheel, and the other in the air, holding a sail in one hand, and a razor in the other; her feet also being winged, and the wheel in constant motion, to intimate that opportunity is always inconstant and in motion.

To OPPOSE, to act as an adversary against another, to resist, &c. It likewise signifies to place as an obstacle.

OPPUGN, To oppugn, is to attack by force of arms.

ORANGE. A term applied to those persons who adhered to the Stadtholder. Horse, orange party. The troops of the
prince of orange were taken into British pay in Sept. 1797.

ORANGE MAN. A title assumed by the members of certain clubs instituted by the British government in Ireland; when the Irish or United Irishmen meditated to rescue their country, in 1798, from British domination; the orange men were sworn to extirpate the catholics wherever found; and their atrocities surpassed the cruelties of the British in India, and the Spanish South America.

O.R.B., in tactics, is the disposing of a number of soldiers in circular form of defence. This has been thought of consequence enough to employ the attention of the famous marshal de Puysegur, in his scheme, who prefers this position, to throw a body of infantry in an open country, to resist cavalry, or even a superior force of infantry; because it is regular, and equally strong, and gives an enemy no reason to expect better success by attacking one place than another. Caesar drew up his whole army in this form when he fought against Labienus. The whole army of the Gauls were formed into an orb, under the command of Sabinus and Cotta, when fighting against the Romans. The orb was generally formed six deep.

ORDER. The arrangement or disposition of things in their proper place; custom or manner, rule or discipline, as order of march, &c.

ORDER of battle. The arrangement or disposition of the different component parts of an army in one or more lines, according to the nature of the ground, for the purpose of engaging an enemy, by giving or receiving an attack, or in order to be reviewed, &c.

Parade Order. When a regiment of horse or foot, a troop, or company is drawn up with the ranks open and the officers in front, it is said to be in parade order.

Close Order. When a battalion or company is commanded to take close order, at the word march, the ranks (supposing the men to stand three deep) close within one pace, marching one and two paces and then halting. So that close order in ranks comprehends an interval of one pace between each.

Open Order. When a battalion or company is commanded to take open order, on the word march, the dressers front, and the centre and rear ranks fall back one and two paces, each dressing by the right the instant it arrives on the ground. So that open order comprehends an interval of two paces between each rank.

Art Order, is preparatory to rank entire, and is frequently practised in light infantry manoeuvres. In order to execute the movement the files of a battalion or company, standing two deep, open from the given point, leaving just space enough for one man. Sometimes, and indeed almost always, when the ground will permit, extended order is taken by facing the battalion or company to the right or left, and by marching to either flank until the whole has gradually doubled its original front. This mode is extremely simple, and consists in nothing more than open order of files from the right or left. The battalion or company after it has obtained all its relative distances, and been halted, is formed, and each rear rank making springs into the vacancy on the word of command—form rank entire.

Entire, when applied to rank, means a straight line composed of half files. See Rank Entire.

Extended order may likewise be taken without facing to the right or left. This is effected by every file moving sideways a given distance; say one pace, or twenty inches, which extent of ground a man generally covers, from the centre. The word of command in this case would be, battalion or company, march times, from the centre by the side step to the right and left. The centre file stands fast—march half.

ORDER Arms, a word of command, on which the soldier brings the butt of his musquet to the ground, the barrel being held perpendicular in line with the right side.

ORDERS, in a military sense, all that is lawfully commanded by superior officers. Orders are given out every day, whether in camp, garrison, or on a march, by the commanding officer; which orders are afterwards given to every officer in writing, by their respective subalterns.

Commander in chief’s Orders. Such orders as issue directly from the commander in chief’s office for the government of the army at large, or for any specific purpose. These orders are sanctioned by the king, and are irrevocable elsewhere.

General Orders, are such as are issued out by the general who commands, who gives them in writing to the adjutant general, who first sends exact copies to the general officers of the day, and distributes them at his own quarters to all the brigade majors, who daily go to head quarters for that purpose: where they write down every thing that is dictated to them; from hence they go and give the orders, at the place appointed for that purpose, to the different majors or adjutants of the regiments which compose that brigade, who first read them to their colonels and lieuten Colonals, or majors, and then dictate them to the serjeants of companies, (this is more frequently done by the serjeant major) who write them correctly down in their respective orderly books, and bring them to all the officers belonging to the company.

Garrison Orders, such orders and instructions as are given by the governor or commanding officer of a town or fortified place.

Brigade Orders, orders which are issued by the generals commanding, through the brigade majors, to the several adjutants.
corps that do duty together, or are brigaded.

Regimental Orders, such orders and instructions as grow out of general or garrison orders, or proceed immediately from the commanding officer of a regiment.

Standing Orders, certain general rules and instructions which are to be invariably followed and are not subject to the temporary intervention of rank; of this description are those orders which the colonel of a regiment may judge fit to have inserted in the orderly books, and which cannot be altered by the next in command without the colonel's concurrence.

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Standing Orders, final instructions which are given to ships of war, and the commanders of vessels. They are as follow:

Order of the Bear, a military order in Switzerland, erected by the emperor Frederick I. in 1225, by way of acknowledgment for the service the Swiss had done him, and in favor of the abbey of St. Gall. To the collar of the order hung a St. Lazarus in April 1712. The king who was sovereign, chief, founder, and protector of the order is always grand-master. The motto is, *Non credo dum tenuit*, which means *I do not believe, whilst he held the handle.*

Order of St. Michael, instituted in 1455, by Lewis XII. in honor of the important services done to France by that archangel at the siege of Orleans, where he is supposed to have appeared at the head of the French troops, disputing the passage of a bridge, and having driven the English from the attack of the English, whose affairs ever after declined in that kingdom. The order is a rich collar, with the image of that saint pendent thereon; with this inscription: *Immensum tremor aceris.*

Order of the Holy Ghost, instituted by Henry II. of France, in 1578. The number of knights is 100, besides the sovereign, who is always grand-master.

Order of St. Louis, instituted by Louis XIV. in the year 1693. This order has remained entirely in the possession of military men, ever since its institution, and has been of singular use in keeping up the spirit, and rewarding the services of those who have distinguished themselves. The number of knights is unlimited, being given to every man of merit. The order is a golden cross, with eight points, which hang pendent to a broad crimson ribbon. The motto is, *Bexilia victoriae praemium.*

Order of Mount Carmel, instituted by Henry IV. in 1608. Order of St. Lazarus, is of a very early institution, but has been often neglected, and as often revived, till Louis XV. united the order of St. Carmel and St. Lazarus in April 1722. The king who was sovereign, chief, founder, and protector of the order is always grand-master.

Order of the knights of Malta. See Malta.

Order of the knights of the Bath. See Bath.

Order of the golden fleece, instituted by Philip duke of Burgundy, surnamed the Good, in 1429. See Fleece.

Order of the Annunciation, instituted by Amadeo, count of Savoy, surnamed the Green, in memory of Amadeo, the first earl, who had valiantly defended the island of Rhodes against the Turks. The collar belonging to this order is of gold, and on it are these four letters, *F. R. T.* which means *Fortissimus juxta Rheni* *dum tenens,* with the figure of the annunciation hanging to it.

Order of knights templars, instituted at Jerusalem about the year 1118. At first there were but nine of the order, and the two principal persons were Hugo de Paganis, and Jeniloy of St. Omer's. This order, after having performed many great exploits against the infidels, became rich and powerful all over Europe; when, on the 22d of May, 1312, the pope by his bull, pronounced the extinction of the order, and united their estates to the order of St. John of Jerusalem. They took the name of templars, because their first
in memoriam of a victory obtained against the Moors, A.D. 1097. Their ensign is a red cross in form of a sword.

Order of the sacred band, erected by Alfphonsa, king of Spain, in the year 1268. The name proceeded from the knights wearing a red scarf, or laces of silk, the breadth of three inches, which hung on their left shoulder.

Order of knights of the Redemption, erected in the kingdom of Aragon, by King James, who conquered the island of Majorca, in the year 1561, by Cosmo, like fly consisting of a pace, 1s a
tin. They parade them every morning in front of the main guard, and thus called, as chiefly consisting of the

In the dragoons, orderly men, on foot, try, and consists of a pace, which is 30 inches from heel to heel, and of which only

ORDINANCE, or ORDNANCE, a name given to all that concerns artillery, or engineering: thus, the commander in chief is called master general of the ordnance, and the next officer, lieutenant general of the ordnance, instead of artillery.

ORDINANCE. The British value of all brass ordnance is at 341. 17s. 6d. or 371 dollars per ton, for the metal; that is, the weight of the gun, and 12 lbs. per hundred weight for waste; to which is added, for casting, on the total weight of metal used, 641. or 286 dollars per ton for light pieces; 561. or 240 dollars for medium; and 441. 395 1/2 dollars for heavy.

Iron ordnance cost 201. or 90 dollars per ton. See also the words GUNS, MORTARS, BLOWERS, &c.

For the proof of all kinds of ordnance, see the word P RoOF.

ORDINARY TIME. This in the British service is the slowest time in marching that is permitted to be used by infantry, and consists of a pace which is 30 inches from heel to heel, and of which only

Jubilation stood near the temple dedicated to our Saviour at Jerusalem.

Orders of the knights of St. James, instituted by Peter the Great, of Russia; but the emma, Catharine I. conferred it in the year 1715.

Orders of the golden stole, a Venetian military order, so called from a golden stole, which those knights wore over their shoulders, reaching to the knee, both before and behind, a palm and a half broad. None are raised to this order but patricians, or noble Venetians. It is uncertain when this order was instituted.

Orders of Maria Theresa. This order was instituted in June, 1775, by the empress queen of Hungary. In 1755, an intermediate class, styled knights commanders, was added to the two classes that originally composed the order. See T Hat-Re.

ORDERLY Officer. See Officer of the Day.

Orderly sergeants, are appointed to

ORDERLY men, 3rd general, or other officers that are entitled to have them.

Ordinarily, the non-commissioned officers and private men who do orderly duty are so called.

On horseback, are dressed the same, only with gloves, and boots, and spurs of course, with the sword-belt and sword. They likewise have their pistols. When an orderly dragoon or foot soldier is sent from one quarter to another, the time of his setting out must be specified on the back of the latter which he carries; the dragoon must take care to bring his horse in cool and properly (unless he has been sent on any pressing occasion) and they must both return to quarters perfectly sober.

Ordinates in general. It is the duty of the sergeant-majors to see that the ord-
5 are to be taken in a minute. But there is a certain abstraction in having a different length of pace; in the American service the pace in all time is 24 inches; and the ordinary time is what the British call quick time; and it is in fact gay and lively, or the time of country dances.

ORDONNANCE. Fr. A warrant. This wood is variously used among the French, viz.

Companie d'ordonnance. Independent companies, or such bodies of armed men as do duty by detached companies, and are not formed into regular regiments. Of this description were the grenadiers, the light horse, and the musqueteers, under the French monarchy.

ORDONNANCES. Fr. Orderly men, whether on foot or horseback.

ORDRES. Fr. The disposition or arrangement for battle.

ORDRE, Fr. Parole and countersign is called.

Adieu l'ordre, Fr. To go for the parole or countersign.

Recevoir l'ordre, Fr. To receive or get the parole or countersign.

Ordre que l'on donne à la troupe, Fr. Parole and countersign together with special orders which are given out every night in the trenches.

ORDRES Militaires, Fr. Military orders.

Nouveaux ordres, Fr. Fresh orders.

ORDRES de mouvement. Marching orders.

ORGANIZATION of Troops. The act of putting troops into such uniform state of discipline, as may fit them to cooperate on any service.

ORQUES, thick long pieces of wood, pointed and shod with iron, clear one of another, hanging perpendicular each by a rope, over a gate of a strong place to be dropped in case of emergency.

Their disposition is such, that they stop the passage of the gate, and are preferable to hores or porticelles; because these may be either broken by a petard, or stopped, by different contrivances, in their falling down. But a petard is useless against an orque, for if it break one or two of the pieces, others immediately fall down and fill up the vacancy.

ORGUE, (Fr. Orgue, Fr.) A term used to express that arrangement or disposition of a certain quantity of musquet barrels in a row, which by means of a priming train of gunpowder, may be subjected to one general explosion. This machine has been found extremely serviceable in the defence of a low bank, a tanstile, or to prevent an enemy from crossing the ditch of an important place.

ORIENT. Fr. The east.

ORIFLAMME, Fr. The ancient banner belonging to the abbey of St. Denis, which the counts du Vexin, who possessed the perpetual adowment of the abbey, always bore in the different wars or conflicts that formerly prevailed between the abbots and some neighboring lords. When the Vexin country fell into the hands of the French kings, they made the oriflamme the principal banner of their armies, in honor of St. Denis, whom they chose for the patron and tutelary saint of France.

ORILLON. See FORTIFICATION.

ORME, Fr. Elm. This wood was considered of such consequence by the old French government, (and perhaps is equally so by the present,) that a specific order was made out in 1716, enjoining all persons letting or holding land in French Flanders, Artois, and Hainault, to plant elm trees, in order that there might be a constant supply in future of carriages and wagon for the artillery.

ORNAMENTS Military. Those parts of the dress of a soldier which are more for appearance or distinction than for absolute use; as gorgets, plates for cross-belts, pouch ornaments, &c.

ORTIE. See BERM in FORTIFICATION.

ORTHOGON, any rectangular figure.

ORTHOGRAPHIE. Fr. See Orthography.

ORTHOGRAPHY. The art of drawing or sketching out a work according to its breadth, thickness, elevation, and depth.

OSTIER, a young willow twig, with which hurdles are made.

OSTAGE, Fr. See Hostage.

OTTOMAN. A name generally given to the Turks, and to the Turkish empire, from Ottoman, who was one of their most celebrated emperors.

OVATION, (so called of a sheep, because the general who so triumphed, offered only a sheep; whereas in the great triumph he offered a bull) an inferior sort of triumph allowed by the Romans to the generals of their armies for lesser victories, as over slaves, &c. or when the war had not been declared pursuant to military usage. According to Kennett, in his Roman Antiquities, page 224, the word ovation is said to have derived its name from shouting ovavi to Bacchus; but the true original is ovos. The show generally began at the Albanian mountain, where the general, with his retinue, made his entry into the city; he went on foot with many flutes or pipes, sounding in concert as he passed along, wearing a garment of myrtle as a token of peace, with an aspect rather raising love and respect than fear.

We have already observed, with Gellet, that this honor was then conferred on the victor, when either the war had not been proclaimed in due method, or not undertaken against a lawful enemy, and on a just account; or when the enemy was but mean and inconsiderable. But Plutarch has delivered his judgment in a different manner: he believes that herefore the difference between the ovation and the triumph was not taken from the goodness of the achievements, but from the manner of performing them; for they...
who, having fought a set battle, and slain a great number of the enemy, returned victor, led that martial and, as it were, cruel procession of the triumph. But those who without force by benevolence and civilized behaviour, had done the business, and prevented the shedding of human blood; to these commanders custom gave the honor of this peaceable ovation. For a pipe is the sign or badge of peace; and mystic the tree of Venus, who, beyond any other deities, has an extreme aversion to violence and war. *Vide Plut. in Marcell.* For a full account of this ceremony, as well as of the Roman triumph, see *Kennet,* page 524.

**OVENS.** The modern improvements in the art of war, has besides making biscuit, the common food of man and horse, also introduced in the equipage of armies, one of raw iron, which travel with the wagon train, and the bakers are classed and under military discipline, in the performance of their important functions. The operations of dressing food in military camps, have been also improved by the introduction of count *Rumford's* process of boiling, roasting, and baking by steam; all performed by the single fire which heats the oven.

**OVERLAP.** See *Invasion.* To *overlap,* to overspread any preceding object. In marching by echelon, for the purpose of forming upon any given point, but particularly in wheeling from column into line, troops may loose their relative distances by not taking ground enough; when this occurs, the rear division, company, or section, unavoidably crowds upon its preceding one, and it is then said to *overlap.* When this happens on service, the troops, so slutt out, must remeant as sore-filles, or reserve, to fill up the intervals that will necessarily present themselves in action. But whether so not, the line must, on no account, be retarded by moving it to right or left.

**OVERLANDRES.** Small barges that ply upon the Rhine and the Meuse.

**OVER-RUN.** See *Outposts,* a body of men posted beyond the grand guard, called out posts, as being without the rounds or limits of the camp. See *Posts.*

**OUTWARD FACE,** a word of command for troops to face to the right and left from their centre.

**OUTWALL.** See *Envelopment.*

**OUTWING,** to extend the flanks of an army or line in action, so as to gain an advantageous position against the right or left wing of an enemy. This manœuvre or evolution is effected by the movement on an oblique line. See *Movements.*

**OUTPAIR,** at a distance from the main body. See *Outposts.*

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**OUTSWIRL,** an officer in the ordnance department, who superintends the artificers in the construction of works, &c.

**OVERSIRLGH,** as a *military phrase,* which is derived from the Dutch, to skip over, will be better explained by the following table. For instance, suppose 4 battalions, each consisting of 8 captains, are doing duty together, and that a captain's guard is daily mounted; if in the first regiment the second captain is doing duty of deputy adjutant general; and the 4th and 5th captains in the second above, one as aid-de-camp, the other as brigade major, the common duty of these three captains must be overlaid, that is, skipped over, or equally divided among the other captains.

**Table of Explanation.**

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N. B. The three blanks shew where the overslabs take place.

**OVERTHROW,** total defeat, disembark, rout.

**OUEST ou Occident, Fr.** One of the four cardinal points of the world, or the west.

**OURAGAN, Fr.** A violent tempest.

**OUTBAR,** to shut out by fortification.

**OUT-GUARD,** See *Outposts.*

**OUTILS, Fr.** Tools of every description that are used by the artificers and workmen belonging to the artillery, &c.

**OUTILS à mineur, Fr.** Tools used in mining.

**OUTLINE,** the line by which any figure is defined.

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ravelin, and a small ravelin before the curtain of the horn-work; those works which are nearest to the body of the place must be the highest, though lower than the body of the place, that they may gradually command those without them, and oblige the enemy to dislodge, if in possession of them.

Ouverture des ports, Fr. The opening of the gates in a fortified town or place, according to specific military rules. The method in all regular governments is too well known to require any particular explanation.

OUVERTURE, See Fortification.

Ouvrage à courner, Fr. Harmswork. See Fortification.

Ouvrage, Fr. Works. See Fortification.

Ouvrage à couronner, Fr. Crowned work. See Fortification.

OUVRAGE, See Horse Guards for the various uses, and workmen employed in fortification, &c. are so called.

OXFORD Blues, See Horse Guards for the various uses, and workmen employed in fortification, &c. are so called.

OXYCRATS, Fr. A certain portion of vinegar to five or six times its quantity of water. This mixture is frequently used on service, and in hot weather, to allay the burning heat of any inflamed part. It is likewise employed to cool cannon, during an engagement, in very hot firing.

OXYGENE, The chemical base of vital air with which nitre is found to abound, and to which gunpowder owes its rapid and perfect combustion.

OYSTER, A shellfish of the sea, the body of which is covered by a hard shell, composed of two valves of a tough nature. The species of oysters differ in various parts of the world, and are of different sizes, qualities, and prices. The principal kinds are the common oyster, the Atlantic oyster, the Mediterranean oyster, and the Pacific oyster. The common oyster is the most abundant and desirable, being found in abundance along the coasts of Europe and North America. The Atlantic oyster is found in the Atlantic Ocean, especially in the northern parts, and is considered the finest kind. The Mediterranean oyster is found in the Mediterranean Sea, and is highly esteemed for its flavor. The Pacific oyster is found in the Pacific Ocean, and is known for its large size and thick shell.

P

PAAT, Iod. A promissory note.

PACE. The common pace is of no determined length; though made use of as a measure by most military writers.

In Germany, and amongst most of the northern powers, the pace is considered equal to 2-10 of a Rhinland rood.

In France the pace is commonly reckoned at 3 feet.

The military pace is 3 ft.

In England it is usually reckoned at 2-12 feet.

The geometrical pace is equal to 5 English feet, and 5-0919 Rhinland feet.

For the military pace, see MACHINERY.

To PACE, to walk the dogs: ater à pas.

Fr. There are four kinds of paces in the manage, the walk, trot, gallop, and amble. The last, more particularly, is called a pace, or easy motion, wherein the horse raises the two feet of the same side together.

PACHA. The captain pacha, among the Turks, is the chief admiral and superintendent general of the marine. He generally commands in person. The sailors and soldiers of the military marine were formerly called levant or levanten; the soldiers are now called galiotitis. The sailors are Turks from the maritime towns, or Greeks from the Archipelago. They are in constant pay. The soldiers, or galiotitis, are all musulmen, and only receive pay when they are in actual service. We recommend to our military readers an important work, which has lately been published at Paris, and from which they will derive considerable information respecting the Turks. It is intitled, Travels in the Ottoman Empire, Egypt, and Persia, by citizen Olivier, member of the French National Institute.

PADE, PADDY. In the rice of the husk whether dry or green.

PADDY, Iod. A king.

PADSHAH, Iod. A general name given by the Portuguese to the temples in the east. It also denotes a coin. See Pagoda.

PAODA, Iod. The place of worship among the Hindoos. It is likewise the name of a gold coin of the value of eight rupees. The English and Dutch
voil pagodas. There are also silver pagodas struck at Munsingua, &c. with the figure of some monstrous idol.

PAILLES, made of wood, with iron hoops and handles, hold generally four gallons, and serve in the field to fetch water for the use of artillery works, &c.

PAILLASSES, Straw beds, commonly called paillasses. These are furnished by the barrack-department for the accommodation of sick soldiers.

The soldiers are going to the forge yard or depot, this term is likewise used to signify the indulgence occasionally granted to soldiers for exercise or necessary evacuations. Thus when a bivouac has gone through its manual, &c. the commanding officer gives the word à la paille.

Rempre la paille avec guet d'enr, Fr. Augurative term, signifying to quarter or fall out with any body, in an open and unreserved manner.

Palle, Fr. Likewise signifies any flaw in metals. Cette hauze est fine, mais il a quelques pailles: this blade is finely tempered, but there are some flaws in it. La lame de son épée se cassa d'enr où il y avait une paille. The blade of his sword broke where there was a flaw.

PAILLER, Fr. Pâlard. An ancient body of French militia. The soldiers belonging to it were probably sociable either from the circumstance of their wearing straw in their helmets, in order to know one another in action, or because they were accustomed to set fire to their enemy's habitations, &c. with bundles of straw, which they always carried with them for that purpose. The inquisitive may be more fully satisfied on this subject by referring to Durange's Glossary.

PAIN de Montereau, Fr. Ammunition bread. In the folio edition of marshal Saxe's prebises, page 16, we find the following important observations on the subject of ammunition bread. He states that bread never should be given to soldiers on active service, but that they should be accustomed to eat biscuits, for the following reasons:—Biscuits will keep a considerable number of years, and every soldier can conveniently carry with him in his haversack a sufficient quantity for seven or eight days. Those officers who have served among the Venetians, will readily prove the justness of this remark. But there is a species of biscuit, or hard baked bread, that never crumbles, (called sucrail or the Russians) which is preferable to any thing of the kind. It is square, and about the thickness of a nut, and takes up less room than either bread or biscuits.

Purveyors, who are interested in the business, maintain a different opinion. They tell you that bread is best for troops. Every man of experience knows the contrary; for it is notorious, that contract, or ammunition bread, is not only made of wholesome ingredients, but that it is seldom more than half baked; which together with the water it contains, increases the weight, and consequently enhancements the value. Add to this, that purveyors must unavoidably increase the expense of the army by being obliged to employ a great number of bakers, bakers' men, wagons, and horses. Independent of the expense, it is evident, that the operations of an army must unavoidably be clogged by the necessity of providing quarters for these people, of having a quantity of hand-mills, and of employing a certain number of effective men to form details, for their security.

It is impossible to calculate the train of robberies and inconveniences which grow out of this system, the embarrassments it occasions to a general; but above all the diseases, which bread, supplied in this manner, will always engender, and the fatigue that the troops must necessarily undergo to get their rations. Were all these miscarriages obviated, there is still another evil in reserve, which no precaution can set aside. This is the certainty that an enemy may be under, with respect to your intentions and motions, by narrowly watching the establishment and disposition of your ovens. Were I, continue the marshal, to adduce instances and facts to corroborate these observations, I might dwell considerably at large upon the subject. I do not hesitate to say, that much of the success, which is attributed to other causes, proceeds entirely from the provision and distribution of ammunition bread. He even goes farther, for he asserts unequivocally, that soldiers ought sometimes to be enured to almost every species of privation, and instead of being provided with biscuit, occasionally to receive grain, which they must be taught to bake upon iron pallets, after having bruised and made it into dough.—Marshall Turenne has observed upon the same subject in his Mémoires. Marshal Saxe, indeed, does not scruple to say, that although there might be plenty of bread, he would, in conformity to the opinion of many good officers, suffer his men to feel the want of it. I have, adds the latter, been eighteen months successively on service with troops who during the whole of that period never tasted bread, and yet never once complained or murmured. I have, on the contrary, been frequently with others that had never familiarized themselves to that privation, and who, on the first appearance of want, were disheartened. In consequence of which the very nerve of enterprise and hardihood was broken, and nothing great could be undertaken.

The modern French armies have carried this idea to an astonishing extent, and with success; not only their troops in the field are supplied with biscuit, but their horses also.

PALADIN, Fr. A name given to those ancient knights who were either
what the French call comtes du palais, counts of the palace, or were princes literally descended from Charlemagne, and other old kings.

PALANKEEN, Ind. a vehicle carried on the shoulders of four men, by means of a bamboo pole extending from each end, it carries one person in a reclining posture, it has a canopy which is supported by a pole raised along the centre, from whence it is pendent on either side. The palankeens are of various kinds; some are made of a kind of wood which the person carried sits in, in others they recline or sleep, and frequently journeys of 2000 miles are thus performed. Among the ancients, a garment worn on the shoulders of four men, by means small craft from plying, or persons from crossing them on foot.

PALKEE, Ind. See PALANKEEN.

PALLY, a covering thrown over the dead. It is always used in military burials.

PALLAS, a name in the Heathen mythology, which is given to Minerva, who was looked upon as the goddess of war.

PALANDEUM, (Polangy) among the ancients, a garment worn at the time of war by the principal men of Rome, especially the generals, who were called for that reason paladati. The soldiers, having only short coats, called a sagum, were denominated sagati.

The paladeum was open on the sides, coming down no lower than the navel, and had short sleeves. It was either of a white, purple, or red color, and sometimes black. Kennett, in his Roman Antiquities, page 323, says, the old paladeum of the generals was all scarlet, only bordered with purple; and the chlamydes of the emperors were all purple, commonly beautified with a golden or embroidered border.

PAN, the side of a rectangle or irregular figure.

PAN, likewise means the distance which is comprised between the angle of the epaule and the flanked angle in fortification. See FACE OF A BASTION.

PAN, a name well known among the shepherds of antiquity, and frequently used by modern writers in their rural fictions. In military history it signifies a man who was lieutenant general to Augustus in his Indian expedition. He is recorded to have been the first author of a general sheet, which the Grecians practised in the beginning of their onset in battle. See PANIC.

PAN, part of the lock of a musket, pistol, &c., which holds the priming powder.

PANCHÉ, Fr. a plume, a bunch of feathers.

PANCHE flettare, Fr. nodding plumes.

PANCHÉES likewise signifies in architecture, the triangular part of an arch that contributes towards the support of a vault or elevation which is raised above the dome of any particular edifice.

PANCARTE, Fr. an ancient exercise or tournament, which was performed in the Roman amphitheatre, when strong athletic men were opposed to all sorts of enraged animals.

PANDOURS, are Hungarian infantry. They wear a loose garment fixed tight to their bodies by a girdle, with great sleeves, and large breeches reaching down to their ankles. They use firearms, and are excellent marksmen: they also wear a kind
of sabre, near four feet long, which they use with great dexterity.

Panic, a sudden consternation which seizes upon men’s fancies without any visible cause; a needless or ill grounded fright. The reason why these terrors are attributed to Pan, was, as some say, because when Osiris was bound by Typhon, Pan and the satyrs appearing, cast him into a fright; or, because he frightened all the giants that waded war against Jupiter: or as others say, that when Pan was Bacchus’s lieutenant general in his Indian expedition, being encompassed in a valley, with an army of enemies, far superior to them in number, he advised the god to order his men to give a general shout, which so surprised the opposite army, that they immediately fled from their camp. And hence it came to pass, that all sudden fears impressed upon men’s spirits, without any just reason, were, by the Greeks and Romans, called panic terrors. (See Poly. Strato, book 1.)

The custom of shouting seems to have been used by almost all nations, barbarous as well as civil; and is mentioned by all writers who treat of martial affairs. Homer has several elegant descriptions of it, particularly one in the fourth Iliad, where he resembles the military noise to torrents rolling with impetuous force from the mountains into the adjacent valleys. We have likewise our war-hoops.

Panier à mine, Fr. See Bourrique.

Panier, Fr. Baskets. Figuratively, un panier percé, a leaky vessel, or one who cannot keep a secret. A dangerous man in society; and in military concerns, one who ought to be particularly guarded against where discretion and confidence are necessary.

Panique, Fr. See Panic.

Panne, Fr. Literally means shag, plushy, &c., and is properly a sea term, signifying to fix or motion on panne. It is likewise used in a military sense, to express the steady posture of troops who are drawn up for battle, and wait an enemy’s attack. La troupe est restée en panne. The squadron remained immovable.

Panneau, Fr. Panel, pane, paneer. Donner dans le Panneau, Fr. to be ensnared, or outwitted.

Panet, in artillery, are the carriages which carry mortars and their beds upon a march.

Panonceau, Fr. An ancient term, which was used to signify ensign or banner.

Panoply, complete armor or harness.

Pansement, Fr. The dressing of wounds.

Panser, Fr. To dress a wound.

Pansement, Fr. In farriery, signifies to rub down, and otherwise to take care of a horse.

Panthéon, in architecture, a temple of a circular form, dedicated to all the gods. The name has been adopted among modern nations from the Pantheon of ancient Rome, built by Agrippa in his third consulate, and dedicated to Jupiter Ulitor, or Jupiter the avenger. There is a chapel in the Escorial in Spain, called the Pantheon, of marble and jasper inlaid; the whole inside is of black marble, excepting the lustral, and some ornamental of jasper and red marble. The Pantheon at Paris during the progress of the French revolution, has been appropriated to national purposes; the names and busts of the most distinguished statesmen and generals being preserved therein as marks of public gratitude, and objects of public emulation. There is a building in London that bears the name of Pantheon, but that is all. It is private property, and the only public use to which it has been appropriated, has been that of oporal speculae, masquerades, or frivolous entertainments.

Pantographe, Fr. A mathematical instrument, which serves to copy all sorts of drawings. The French have paid great attention to the improvement of this instrument, of which a minute description may be found in Cours de Mathématiques, by Pere Deshalles. But the seur Pansois brought it to such perfection in 1750, that it is become universally useful.

Pantometer, an instrument used, to take all sorts of angles, distances and elevations. It was invented by the ancients, but has been greatly improved since.

Pantometre, Fr. See Pantometer.

Papier de cartouches, Fr. Paper used for cartridges.

Papier gris, or Papier brouillard, Fr. Whited, brown paper.

Papiers et enseignemens, Fr. All the papers and manuscripts which are found on board a ship are so called.

Paquebot, Fr. A modern French term, derived from packet-boat, which see.

Parabole, in geometry, a figure arising from the section of the cone, when cut by a plane parallel to one of its sides.

From the same points of the cone, therefore, only one parabola can be drawn: all the other sections within these parallels being ellipses, and all without hyperbolas.

Properties of the Parabola. The square of an ordinate is equal to the rectangle of the abscissa, and four times the distance of the focus from the vertex.

The perpendicular on the tangent, from the focus, is a mean proportional between the distance from the vertex to the focus, and the distance of the focus from the point of contact.

All lines within the parabola, which are drawn parallel to the axis, are called diameters.

The parameter of any diameter is a right
line, of such a nature that the product under the same, and the abscissa, are equal to the square of the semi-ordinate.

The squares of all ordinates to the same diameter, are to one another as their abscissas.

Catenary **Parabola**, is curve of the second order, expressed by the equation $y = ax^2 + bx + c$, containing four infinite legs, bring the 60th species of lines of the third order, according to sir Isaac Newton: and is made use of by Descartes, in the third book of his geometry, for finding the roots of equations of six dimensions by its intersections with a circle.

**Parabola**, a same given by sir Isaac Newton to five different lines of the third order, expressed by the equation $y = ax^2 + bx + c + d$.

**Parapluie**, Fr. See **Parabola**.

**Paraboloid**, Fr. See **Parabolic Conoid**.

**Parade**, originally consisted of a square court before cathedrals, surrounded with parapets or porticoes for persons to walk under, being supported with pillars. It is now used in a military sense, to signify any place where troops assemble, and may be distinguished in the following manner:

**General Parade**, the place where soldiers belonging to different corps are drawn up, according to seniority, to mount guard, or be exercised, &c.

**Regimental Parade**, the place where any particular regiment or corps is formed in line, &c.

**Private Parade**, any spot selected, in general by each captain of a troop or company, for the inspection of his men, previous to their being marched off to the regimental parade. This parade is likewise called company or troop parade. When troops are encamped, the general and regimental parades are usually in front of the line of tents; each regiment having its quarter-guard opposite, and the space between being sufficient to allow of the free exercise of the battalion. The companies have their private parades in the several streets of the camp.

**Parade, in camp**, is that spot of ground in the front of each encampment, between the camp colors, on the right and left wings.

**Morning Parade**, in every garrison town, fortified place and camp, as well as in every town through which soldiers pass, or occasionally halt, a certain hour in the morning is fixed for the assembling of the different corps, troops, or companies, in regular order.

**Evening Parade**, The hour generally fixed for the evening parade is at sunset. When troops are encamped, the signal for evening parade is given from the park of artillery, by the discharge of a piece of ordnance, which is called the evening gun.

**To Parade**, to assemble in a prescribed regular manner, for the purposes of being inspected, exercised, or mustered.

**To Parade.** This word is frequently used as an active verb, with respect to military matters, viz. to parade the guard, &c. It has likewise been adopted in civil life to express the act of calling out a person in an affair of honor. The Irish familiarly say—I shall parade the gentleman tomorrow morning in the Phoenix Park.

**Parade, Fr.** The French make use of this term in various ways.

**Parade, Fr.** Show, ostentation. **Litt de Parade, Fr.** Bed of state.

**Cerual de Parade, Fr.** A horse finely caparisoned, and kept for show.

**Parade, Fr.** in marching, the act of carrying or carrying off.

**Parade, Fr.** the place or ground where soldiers parade. Se mettre en Parade, Fr. to take one's ground. **Sorte le Parade, Fr.** To do parade duty.

**Monter la Parade, Fr.** To take part in the regular line of parade.

**Monguer la Parade, Fr.** in fencing, to miss one's party.

**Etre hors de Parade, Fr.** to party wide, or stand exposed.

**Parade, Fr.** that part of a harbor in which vessels may ride with the greatest safety.

**Paralleles, Fr.** Parallel lines in fortification are so called. See **Paralleles**.

**Paralleles, Fr.** Parallel lines at a siege, the trenches or lines made parallel to the defence of the place besieged; they are also called lines of communication, and boyes. **Paralleles, Fr.** or places of arms, are deep trenches 15 or 18 feet wide, joining the several attacks together. They serve to place the guard of the trenches in readiness to support the workmen when attacked. There are usually three in an attack; the first, about 300 feet, or 500 yards, from the covert-way; the 2d and 3d, nearer to the glacis.

**Parallélpiped, (Parallélopépid, Fr.)** one of the regular bodies of solids, comprehended under six rectangular and parallel surfaces, the opposite ones whereof are equal.

**Tirer une Paralleles, Fr.** To draw a parallel. To make a direct communication between one trench and another.

**Parallélisme,** the situation or quality whereby anything is denominated parallel.

**Paralléllisme of a march,** In order to preserve the parallellism of a march in the movement of troops, each battalion must be kept perpendicular to the direction it marches upon, the whole of the several battalions in one straight line, and
their several marching directions parallel to each other. The first battalion or line becomes the regulating one, and must be regarded as infallible; and from the moment that its direction is ascertained, the commander of each other, and their directing sergeants, are to consider their movements as subordinate to it, and to conform accordingly. It is the helm which guides the line, and must not change course; nor will it increase or diminish its speed, but from unavoidable necessity, and by particular order.

The instant communication of the word of the first, is equivalent to that line marching in two columns of platoons, from near the centre obliquely to the front and from that situation forming to both flanks. The movements of the central columns being well understood, those of the battalions of the wings, are similar in two lines.

The officer commanding the second line, must always be properly informed of the nature of the change to be made by the first, that he may readily determine his corresponding movements. It requires much attention to conduct heads of battalion columns of both lines nearly parallel to their lateral ones, and perpendicularly, or diagonally to front or rear, according to the nature of the movement. To determine with precision, and in due time, their points in the new line, that wavering and uncertainty of march may be avoided. In great movements to allow the soldier every facility of motion without increasing the distances of divisions, and to require the most exact attention on entering the new line, and in forming. To avoid obstacles in the course of marching, but as soon as possible to re-enter the proper path of the column, while out of that path, the colored of the battalion column may be lowered, (as a mark for the neighboring column, not to be then entirely regulated by it) and again advanced when it regains its proper situation.

All the battalions of a second line, must at the completion of every change of position, find themselves placed in the same relative situation with respect to the first, as they were in before the commencement of the movement.

All changes of position of a first line are made according to one of the modes already prescribed: in general, in critical situations, they are made on a fixed flank, or central point, and by the echelon march of platoons or echelons of smaller sections than platoons, where ground and other circumstances require it; and the echelons may upon occasion be each marched in file, but keeping its position: but the movements of a second line being protected, more complicated, and embracing more ground, are made by the march of battalion columns regulated by a certain determined division of the line.

In all cases, where a change of position
The chevalier Clariac, in his},!), these parapets. But the merit of a pace distance; and 40 paces to the redans, or teeth, is perpendicular. Factieux quotes parasce 111/t unt Cumpagn, i;1}

The park of stores and provisions. (Pierre, Fr.) a plain figure bounded by four right lines, whereof the opposite are parallel one to the other. It likewise means an instrument composed of five rulers of brass or wood, with sliding sockets, to be set to any proportion, for the enlarging or diminishing any map or draught.

PARALYSER, Fr. To paralyze. A term frequently used by the French since the revolution, to express the bad effects of a factious spirit, &c. Un seul factieux quelque fois paralyse toute une administration; one factious man will sometimes render the designs of a whole administration abortive.

PARAMETER. See GUNNERY and TRAJECTORY.

PARAPET, in fortification, an elevation of earth, designed for covering the soldiers from the enemy's cannon, or small shot; its thickness is from 16 to 20 feet; its height 6 on the inside, and 4 or 5 on that side next the country: it is raised on the rampart, and has a slope called the superior talus, or glacis of the parapets, on which the troops lay their arms to fire over. The slope renders it easy for the soldiers to fire into the ditch. It has a banquette or two on the inside for the troops who defend it to mount upon, for better discovering the country, the ditch, and counterartiller, to fire as they find occasion.

Parapet of the artillery, is what covers that way from the sight of the enemy; which renders it the most dangerous place for the besiegers, because of the neighborhood of the faces, flanks, and saluting of the place.

PARAPETS en forme de trémièrur, Fr. Parapets which are so constructed within, in the form of a saw, that one of the faces of the rofants, or teeth, is perpendicular and the other parallel to the capital. The chevalier Clariac, in his Instruct de Campagne, has given a particular account of these parapets. But the merit of hav
fear of the subaltern officers; at 10 more to the rear the captains, and to more the commanding officer. The mess tent is 15 in the rear of the officers. At a convenient distance, in the rear of the whole, are the horses picketed in one or more lines, with the drivers on their flanks. The horses are sometimes picketed in lines perpendicular to the front, and on the flanks of the carriages, between the men and the carriages. See CAMP and ARTILLERY IN THE FIELD. Am. Mil. Lib.

PAR of provisions, a place in a camp, on the rear of every regiment, which is taken up by the sutlers who follow the army with all sorts of provisions, and sell them to the soldiers.

PARLEMENTER, Fr. to parley. The French familiarly say, fille qui parlemente est à demi vendue; a town whose governor parliettes may be said to be half given up.

PARLEY, oral treaty, talk, conference, discussion by word of mouth. See TRUCE.

To beat a parley, is to give a signal for holding such a conference, by beat of drum, or sound of trumpet. See CHAMADE.

PAROLE, in a military sense, the promise made by a prisoner of war, when he has leave to go anywhere, of returning at a time appointed, or not to take up arms, if not exchanged.

PARLER, means also a word given out every day in orders by the commanding officer, both in camp and garrison, in order to known friends from enemies.

PARLER, Fr. This word, which signifies to lodge and place any thing in a convenient and safe manner, is used by the French both in an active and passive sense.

On parquer l’artillerie, ou l’artillerie fut parque en tel endroit, Fr. you will park the artillery in such a quarter, or the artillery will be parked in such a quarter.

Les gens de l’artillerie se parquaient, ou furent parqués, du côté de la rivière, Fr. The train of artillery parked itself on the banks of the river, or was parked upon the banks of the river.

L’artillerie parquée en tel lieu, Fr. The artillerie parked on such ground.

PARRAIN, Fr. means, literally, a godfather. In a military sense, it formerly signified the witness who attended at single combats to see the play. Les combattants s’étiovaient dans le lieu du combat, cloué avec ses parrains. The combatants met upon the ground, each attended by his second or witness.

Parain, Fr. in military orders, the person who introduces, or presents a newly elected knight. The term is also used to signify the comrade who is selected by a soldier that has been condemned to be shot, to bind the handkerchief over his eyes.

PARVING, the action of wounding or the push or blow aimed at one by another. Etre à la Parti, Fr. a marine term among the French, signifying, to shine in the prizes which are made against an enemy.

PARTHENAE, a word derived from the Greek, signifying virginity. In military history it refers to a particular circumstance which occurred among the ancients. The Spartans having been at war with the Messenians for 20 years, and having by that means very much depopulated their country, and apprehending that if this war continued, it might eventually strip Sparta of all its male inhabitants, they sent some of their young men from the army into the city, with licence to be familiar with as many unmarried women as they would; and the children begotten by them in this manner were called Parthenian, on account of the uncertainty who were their fathers. At the end of the war this brood were deemed bastards, and were denied the bearing of arms, if not exchanged. See TREATY.

PARTITION, Fr. See PARLIAMENT. PARLEY, is to give a signal unjust exclusion enraged them so much, that they conspired with the slaves to destroy all the nobility; but on the discovery of their plot, they were driven out of the city. After which, being headed by Ephialtus, a blind and altogether despised man, they entered into conference with your enemy. The term is also used good cause of challenge; and he should not be allowed to sit in judgment on his case.

PARTISAN, has been applied to
PARTISAN, in the art of war, a person dexterous in commanding a party; who, knowing the country well, is employed in getting intelligence, or surprising the enemy’s convoy, &c. The word also means an officer sent out upon a party, with the command of a body of light troops, generally under the appellation of a partisan corps. It is necessary that this corps should be composed of infantry, light-horse, and riflemen.

PARTY, in a military sense, a small number or detachment of men, horse, or foot, sent upon any kind of duty; as into the country. Parties are often sent out to view the roads and ways, get intelligence, seek forage, reconnoitre, or amuse the enemy upon a march; they are also frequently sent upon the flanks of an army, or regiment, to discover the enemy, if near, and prevent surprise or ambuscade.

Parties escorting deserters, in the British service receive the following allowances, being the same as have been granted to those of other forces, in consideration of the unavoidable extraordinary wear of their clothing and necessaries on that duty, viz.

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In the like proportion, allowances are to be made, for parties of four, five, and six men, but no higher. This is however to be understood as a regulation of allowances merely, it not being the intention of government thereby to restrain any commanding officer from employing larger parties on the escort duty, if he should think proper, but that whatever may be the actual number of the parties, the allowances are to be in the proportion of Three men for an escort of Five——from 9 to 12

Four———from 13 to 16

Six———-from 17 to 20

Exact returns of the said duty, as performed by each corps, are to be made up, agreeable to a form annexed, as soon as may be after every 24th of June and 24th of December, for the half years immediately preceding, and are to be transmitted to the office of the secretary of war, in order that the allowances thereon may be settled and directed.

WATERING, that is, to take water, or to go to water, as it should be understood as a regulation of allowances merely, it not being the intention of government thereby to restrain any commanding officer from employing larger parties on the escort duty, if he should think proper, but that whatever may be the actual number of the parties, the allowances are to be in the proportion of Three men for an escort of Five——from 9 to 12

Four———-from 13 to 16

Six———-from 17 to 20

Double the Pas, Fr. to double your step or pace; to go faster.

Forces le Pas, Fr. to make a forced march.

PAS, Fr. Pace. A measure in fortification. The French divide their Pas, or pace, into two kinds—par commens, or ordinary pace, and for geometric, or geometrical pace. The ordinary pace consists of two feet, and the geometric pace contains five royal feet, or 15.2400

The itinerary distance which the Italians call a mile, consists of one thousand geometrical paces; and three miles make a French league.
between works when the ditch is dry, and are generally made in the reentrant angles of the counterscarp, and in the reentrant angles of the outworks. There are likewise steps or degrees of this sort at some distance from the glacis.

**Pàs,** Fr. Any strait or channel of water between two separate lands.

**Pàs de Calais,** Fr. The straits between Calais and Dover.

**Pàs,** Fr. To march by open order of columns, for the purpose of saluting a review. Each division or company (on its march) will open its ranks at 20 paces distance from the general, and again close them, after it has passed 15 paces. The whole march in slow time, till the leading division arrives at the spot where the left of the battalion originally stood. The commanding officer then halts the regiment, the music ceases to play, and the different divisions with supported arms march in quick time until they have completed the third wheel from the ground of original formation; when arms are ordered to be carried, the music plays, and as each division completes the third wheel, the officers shift to the right, and the whole pass the general.

**Pàs de armes,** in ancient chivalry, a bridge, road, &c. which the knights undertook to defend, and which was not to be passed without fighting the person who kept it. He, who was disposed to dispute the pass, touched one of the armories of the other knight who held the pass, that were hung on pales, columns, &c. erected for the purpose; and this was a challenge which the other was obliged to accept. The vanquished gave the conqueror such prize as was agreed on.

**Pàs-fàr，“** a command or word which is given out at the head of an army, and from thence passed from mouth to mouth, till it reach the rear.

**Pàs-port，“** a letter of licence which is given by a government, granting safe conduct to travel, enter, and go out of its territories without molestation; this is properly given to friends and neutral persons; and the safe conduct to enemies.

**Pàs,** Fr. See Pàs.

**Pàs,** in the meaning, is a horse's walking or trotting in such a manner, that he raises the outward hind-leg and the inward fore-leg together; and, setting these two on the ground, raises the other two alternately, never gaining above a foot of ground at a time.

**Démander le Pàs,** Fr. This term is used among the French to express the act of soliciting charity out of the usual way of persons begging, or who have not been accustomed to ask alms. Donner le pàs à un pauvre solde; to give alms to a poor soldier. Il faut sur le champ beaucoup de soldats qui demandent le pàs; there were many soldiers on the road who asked charity.

**Passage,** (passage, Fr.): This word, as to its general import, does not require explanation. It is familiar to every body, in a military sense it may be variously understood for passages made over rivers or through defiles, which should always be secured when an army is on its march. Dragon or light cavalry are generally employed upon this service, being, by the dexterity of their motions, better calculated to get the start of an enemy. Passes through mountainous countries, and passages over rivers, may likewise be secured by means of light field pieces and flying artillery. The latter are particularly calculated for defiles. In trenching tools, &c. must be carried with them.

If it be found expedient to cross a river, a sufficient number of pontoon must accompany the detachment. Should the river be fordable, and a body of infantry have been brought up in time to act with the cavalry, the former must instantly make good its footing on the opposite side, carrying intertrenching tools, &c. for the purpose of fortifying the côte du pont, and thereby securing the passage of the river. Rivers are crossed either by surprise, or by main force. When the passage is to be effected by surprise, such movements and feints must...
be resorted to, as may induce the enemy to direct his means of opposition to a distant quarter from the one you have in contemplation. Every precaution must be taken to prevent him from getting the least intelligence respecting your boats of pontoons; and on this account you must frequently countermarch different bodies of troops to divert his attention. When the passage is to be effected by force, you must take such a position as will enable you to command the one occupied by the enemy, and you must select that part of the river where most of the boats and barges may be under cover of which the boats and barges may be

Those spots upon the banks of a river are best calculated for this enterprise, where the stream forms a resistant angle, because it is more easy, in cases of that sort, to plant your batteries in such a manner as to afford a cross fire against the opposite bank. The instant you have disclosed the enemy, by means of a superior force of artillery (which you must always provide for the purpose in question), a strong detachment composed of grenadiers, and other chosen troops, must cross in boats or barges, in order to start the first shock of the enemy, under a well-supported fire of artillery.

When this detachment has made good its footing, the boats or barges must instantly row back for fresh troops, whilst the pioneers, artificers, and workmen, who accompanied the grenadiers, throw up temporary redoubts, and are protected by the fire of the troops that have landed. As soon as the works are sufficiently advanced, and an adequate number of men has been distributed in them to secure the post, the bridge must be undertaken. Its head or tete must be made as strong as possible, to keep the enemy in check should he return, and endeavor to dislodge the advanced garrison. The main body must be put in motion shortly after the departure of the first detachment, in order to support the latter, should the enemy succeed in making a bold push to defeat it, and thereby prevent the numberless disadvantages which must ensue, if the army were permitted to cross the river, or to pass the defile without opposition.

When the passage of a large river can be happily effected by means of a bridge, considerable advantages may be derived from it; and especially when the army is thereby enabled to reach a defile pass, the possession of which enables a general to distribute his troops indifferently quarters. Marshal Turcke, in his famous passage over the Wesel in 1803, has afforded us a fine instance of this advantage.

Marshal Saxe has written largely upon this important operation; and every general officer ought to be thoroughly versed in the ways and means of executing it under all the various circumstances that occur in the locality of ground, the peculiar nature of rivers, and the possible resources of an enemy, that is determined to dispute his passage. But the most memorable of all that is recorded in history are the passages of the Danube below Vienna, in 1809, which merit the study of every military man.

Soldiers should be frequently practised in the different evolutions which are required to pass a bridge in a safe and military manner. Bridges, defiles, &c. being obstacles that retard the movements of an army, whose object is to advance, we refer our readers for a full elucidation of the subject, under the article OBSTACLES.

**Revised Rules.**

1. If before the right flank—The right platoon will move on, the rest of the battalion will face to the right, and march in file, the divisions will successively form and follow the leading one, and each other.

2. If behind the right flank—The whole face to the right and march, the right division instantly countermarches to the right, moves forward, followed in the same manner by every other division, till the whole is in column. But the following method of passing in open column, would save a great deal of time which is unnecessarily lost by countermarching each division separately, as they successively arrive on the ground where the right division stood before it marched off to the near.

3. Countermarch the whole of the divisions at the same time, and on the same ground which they severally occupy in the line.

ad. Face the whole (except the right division) to the left, which moves forward on the word march from the chief. The divisions as they successively arrive on the ground from which the last division marched, will halt and form. Follow the leading one and each other, till the whole are in columns.

**Revised Rules.**

3. If before any central point, or the left flank—The battalion makes a successive countermarch from the right flank towards the left, and when the right division arrives at the point from whence it is to advance, it again countermarches to its right,

...
a space equal to its front, then faces and moves on, and is thus successively fol·lowed by part of the battalion. The other part of the battalion beyond the point of advancing, faces inwards, when necessary, makes a progressive march in file, then fronts, and follows by divisions as it comes to the turn of each, till the whole are in column.

**A different Method.**

Instead of passing according to the above method, much time may be gained, by the divisions on the right of the defile facing to the left, [commencing with the right division] marching in the till opposite, and in full front of the division which is opposite the defile, or where the column is to advance from, then front, march forward, followed by the other divisions; the divisions on the left of the defile will face inwards, and when necessary, make a progressive march in file, followed as before, till the whole are in column.

**Received Rule.**

4. **Opposite the cause or the left flanks.** The right part of the battalion counter marches from the right by files successively by the rear; and the other part of the battalion, as is necessary, makes a progressive march in file from its right to the central point, and there begins to countermarch at that point, the loading and each other division, fronts into column, and moves on.

**A different Method.**

To avoid loss of time in countermarching the divisions on the left as they successively arrive at the point they march from, Countermarch those divisions first on the ground they severally stand on, then faces to the left, and when it comes to their turn march in file, front, and following in column, as they progressively and successively arrive opposite the point where the right division entered the file.

It must be observed that in all countermarches of divisions on the ground they severally stand on, when passing to the rear, the division which stands opposite the point from which they are to march, must countermarch at the same time with the other divisions. See Am. Mil. Lib.

**PASSAGE of Lines.** In narrow grounds, where there are redoubled lines, and in many other situations, it becomes necessary for one battalion to pass directly through another, in marching either to front or rear. This must particularly happen, when a first line, which has suffered in action, retires through, and makes place for a second line which has come forward to support it; or, the second line remaining posted, when the first falls back, and retires through it, and thus alternately, till a safe position is attained.

**PASSAGE of the Traverse, an opening out in the parapet of the covert way, to the traverses, that there may be a ready communication with all parts of the covert way.**

**PASSAGE, in the manoeuvre, an action wherein the horse raises a hand and fore leg together; then setting these two on the ground, he raises the other two; and, thus alternately, never gaining above a foot of ground at a time.**

**PASSAGE** Fr. to passage, a term used in the manage.

**Passage an Cheval, Fr. to make a horse passage.** It is likewise used as a neutral verb, viz. an eclecl passage, a horse passage.

**Passandeau, Fr. an ancient piece of ordnance, which carried an eight pound ball, and weighed three thousand five hundred pounds.**

**Chains.**

**Passant, Fr. a thoroughfare.**

**Passavant, Fr. a pass.** This term is not used in a military sense, but relates chiefly to commercial matters.

**Passee, Fr. See Pass.**

**Passe, Fr.**

**Passe-4outes, Fr. boards or machines made of iron or brass, used in disporting cannon, and fitted to every species of caliber.**

**Passe-Marn, Fr. a piece of ordnance formerly so called, which carried a sixteen pound ball, and weighed four thousand two hundred pounds.**

**Passe-par-tout, Fr. a large saw, the teeth of which are irregularly made, for the purpose of cutting forest trees easier.**

**Passe-par-tout, Fr. a master key.**

**Passe-cog, h.** Any extraordinary effort that is made in rowing is so called.

**Passe-Port, Fr. This expression is used among the French in an absolute sense, and signifies to give the parole, order, or countersign. When troops are on service, or upon duty, they have frequent occasion to adopt it, especially during the rounds.**

**Passe-pard, Fr.**

**Passe-Volant, Fr. any man that is not really in the service, and who stands to be mustered for the purpose of completing the supposed number of effectives in a regiment, or on board a ship of war. They are likewise called soldiers privés, hired soldiers. During the existence of the old French government, the strictest regulations were made to prevent the gross impositions that were sometimes practiced by means of passe-volants or affectots.**

**Passe-Volant, Fr.** Likewise means those wooden pieces of ordnance which are made to resemble real artillery, and fill up the vacant places in a ship. They were first adopted by the French, in consequence of a regulation which was made by M. de Pontchartrain, when he became minister of the marine department. He gave
orders, that no vessels, except such as
carried 15 guns, should sail to and from
America. In order to comply, at least in
outward appearance, with this regulation,
the merchants had recourse to pass-copyers,
or wooden substitutes, they are called by
us quarter-guns. More advantages than one
are indeed deriv'd from this invention,
which has been adopted in every civilized
country.

PASSÉ, passé, Fr. ferry for horses.
PASSER, Fr. to pass. This word
has various significations both in French
and English, but chiefly in the former
language.

PASSÉ en retour, Fr. to master.

PASSER à double, Fr. to allow in reckon-
ing.

PASSER au fil de l'épée, Fr. to put to
the sword.

PASSER par les bagnettes, Fr. to run the
gauntlet.

PASSER par les armes, Fr. to be shot.

PASSER à la montre, Fr. to pass muster.

PASSER par la main du bourreau, Fr.
to be flogged, or otherwise punished, by
the public hangman.

PASSER la rivière, passer la ligne, Fr.
to cross the river, to cross the line.

PASSER par les courroies, Fr. to be
picked.

PASSER un homme à un officier, Fr. to
allow an officer the say and substance of
a private soldier for the maintenance of a
servant. The term is also used to expres-
s the receipt of any public allowance for
sincere places.

PASSER sur le point à une armée, Fr.
to desert an army.

PASSÉ, Fr. a ferryman.

PATACÉ, Fr. This word some-
times means an advice post; but it more
generally signifies an armed tender, or a
revenue cutter.

PATE, Fr. in fortification, a sort of
platform, that is, a platform, or term-
pleine, irregularly built, yet generally
constructed in an oval form. It is sur-
rounded by a parapet, without any thing
to flank it, and having no other defence
than what is front or fore right. Patés
are usually erected in marshy grounds to
cover the gate of a fortified town or
place.

PATERERO, a small cannon maneged
by a swivel.

PATIENCE, the power or faculty of
suffering; endurance; the power of ex-
erting long, without rage or discontent;
the power of supporting faults or injuries,
without revenge; long suffering. In
military life patience is an essential re-
quise. Without patience half the
toils of war would be insupportable;
with patience there are scarcely any hard-
ships but what coolness, courage, and
ability may overcome. It is one of the
best virtues, indeed, in an officer or
soldier patiently to support, not only the
n rigor of discipline, but the kæn and

PATOMAR, a two mast vessel;
each mast carries one sail of four une-
equal sides. It likewise signifies a mes-
enger.

PATRICIAN, from the Latin Pa-
tricianus, one descended from a noble
family. The term was used among the
Romans, to distinguish the higher class
of the inhabitants of Rome from the
lower, who were called plebeians. Ro-
mulus, as soon as the city of Rome was
tolerably well filled with inhabitants, made a distinction of the people. The
names Peter, Patrick, are from a pas a
father; the Roman senate were called
Patres conscripti. See PATRON.

Order of St. PATRICK. There is
only one order of knighthood which be-
longs to Ireland; it is that of St. Pa-
trick, and was created by Geo. III. for
corrup purposes.

PATRIOT, a sincere and unbiased
friend to his country; an advocate for
general civilization, uniting, in his con-
duct through life, moral rectitude with
political integrity. Such a character is
seldom found in any country; but the
peculiar appearance of it is to be seen ev-
ery where, most especially in Europe.
It is difficult to say, how far the term can
be used in a military sense, although it is
not uncommon to read of a citizen soldier,
and a patria soldier. Individually con-
sidered, the term may be just; but it is
hardly to be understood collectively.

PATROL, any party or round of
soldiers, to the number of five or six,
with a sergeant to command them
These men are detached from the main
guard, picquet, or quarter-guard, according
to circumstances, to walk round the streets
of a parish town, &c. for the purpose of
taking up disorderly persons, or such
as cannot give an account of themselves.
It is their duty to see, that the soldiers
and inhabitants of the place obey to their
quarters and dwelling-houses, (in con-
formity to specific directions which are
given out to that effect) and that alehouses
and sutlers' booths are shut up at a sea-
sonable hour. They are likewise to take
up every person they meet without a
light, and that cannot give the watch-
word or countersign when he is chal len-
ged. All such persons must be conducted
to the guard-house, and a report made of
them to the commandant or governor of
the place, by the town-major.

PATROLs are formed out of the in-
fantry as well as the cavalry. When a
weak place is besieged, and there is a
reason to apprehend an assault, strong par-
toles are ordered to do duty; these on foot keep
a good look out from the ramparts, and
these that are mounted take care of the
outworks.
PATRON, one who countenances, supports, or protects. Every superior officer, from the commander in chief to the lowest non-commissioned officer, may, in a military sense, be called a patron; for it is the duty of all persons, in authority, to countenance, support, and protect every executive member in the service. Partialities on the other hand, (whatever may be their sources) are the bane of order and good discipline. In proportion as merit finds patrons among the good and great, indolence and instability should be discountenanced and deprecated.

Kennett in his Roman Antiquities, page 97, has the following passage, on the origin of patrons: Romulus, as soon as his city was tolerably well filled with inhabitants, made a distinction of the people according to honor and quality; giving the better sort the name of Patres or Patrici, and the rest the common title of Plebeii. To him the two degrees more firmly together, he recommended to the patricians some of the plebians, to protect and countenance; the former being stiled Patron, and the latter Clientes. The patrons were always their clients' counsellors in difficult cases; their advocates in judgments; in short, their advisers and overseers in all affairs whatever. On the other side, the clients faithfully served their patrons, not only paying them all reasonable respect and deference, but if occasion required, assisting them with money towards the defraying of any extraordinary charges. But afterwards when the state grew rich and great, though all other good offices continued between them, yet it was thought a dishonorable thing for the better sort to take any money of their inferiors. (Pilate Dionys. lib. 3. Liv. lib. 10. Plutarch in Romuls.) Hence the origin of patrons. But the case is altered in modern times with respect to pecuniary interest. Cold, or something more solid in the sale of liberty and good sense, buys a patron now.

PATRON, Fr. Among the French the captain of a trading vessel is so named. There were likewise sea-faring men called officers mariners, who served on board the French ships of war, and who were entrusted with the management of sloops and barges. These were generally called patrons.

PATRONS, (Galerie patrons, Fr.) The galley which was second in rank at Marseilles, was so called. It was commanded by the lieutenant-general of the galley who took precedence in that line in the same manner that the vice-admiral of the French fleet did among ships of war.

PATROUILLE. See Patrol.

PATTE, Fr. a term used in mining. When a well or excavation is made in loose or crumbling earth, and it becomes necessary to frame it in, the rafters must be laid horizontally to support the boards. The ends of the rafters that are first laid, run ten or twelve inches beyond the borders of the well, for the purpose of sustaining the platform. These supports are called Oreilles; consequently, that every subsequent frame may be supported, the second is attached or made firm to the first by means of the ends of boards which are nailed together. In this manner the third is joined to the second, and the fourth to the third. These ends are called pattes or handles.

PATIN, a term used in mining to describe three small branches which are practised, or run out at the extremity of a gallery. They are so called from their resemblance to the foot of a goose.

PATTERN, a part shown as a sample for the rest. In a late regulation relative to the inspection of the clothing of the British army in general, it is particularly directed, that regular inspectors, or the inspectors for the time being, do view and compare with the sealed patterns the clothing of the several regiments of cavalry and infantry, as soon as the same shall have been prepared by the respective clothiers; and if the clothing appear to be conformable to the sealed patterns, the said inspectors are to grant two certificates of their view and approval thereof, one of which certificates it is to be delivered to the clothier, to be sent with the clothing to the head quarters of the corps; and the other to be lodged with the clothing board, as the necessary voucher for passing the assignment of the allowance for the said clothing.

A Pattern regiment, a phrase of distinction, which is applied to a corps of officers and soldiers, who are remarkable for their observance of good order and discipline.

PATURE, Fr. See Forage.

PATUREUR, Fr. Forager, one who goes on a foraging party.

PAVALUNGE, lad. the name of a year.

PAUDSHAU, Ind. King.

PAVESADES, Fr. Large portable hurdles, behind which the archers and bowmen were formerly posted. According to Froissart, these hurdles were used long before the reign of Philip Augustus, king of France. Father Daniel, in his Histoire de la Milice Fran- col' description them as bearing the figure of a shield; but the chevalier Foulard, in his Commentaire sur Poiché, informs us, that they were mantlets which were disposed in parallel or oblique lines, from the camp to the nearest works belonging to the Corps de Plaines, behind which the soldiers and artificers, &c. could in safety, make a small loose or ditch that was sufficiently deep to preserve them from fire and storm. Hurdles, constructed in this manner, were used during the operations
of a regular siege; but when it was found expedient to insult a place, those of less dimension were adopted. Father Daniel describes the Reenishment Parata, which was used many centuries before the days of Philip Augustus, under the latter head.

PAVILLON, in military affairs. See TENT.

PAVILLON, Fr. See TENT.

PAVILLON, Fr. Flag, standard, or colors.

Valise pavillon, Fr. to strike, to yield.

Valiseau pavillon, Fr. Flag ship.

PAVILLON, Fr. This word likewise signifies the swell or broad part of a speaking trumpet.

PAUETTE, Fr. a certain tax or pecuniary consideration which all persons who held public situations under the old government of France, were obliged to pay at the commencement of every year, to the king. This enabled them to sell or dispose of their appointments, and to leave the amount to their heirs, if they happened to die in the course of the year. It is so called from Paulet, the name of the person who first suggested the measure.

PAVOIS, Fr. an ancient weapon of defence. It was the Clypeus or broad shield of the Greeks and Romans.

PAUSE, a stop, cessation, or intermission. It is essentially necessary for all officers to accustom themselves to a most minute observance of the several pauses which are prescribed during the firing. Accordingly the pause between each of the firing words, make ready—aim, fire, is the same as the ordinary time, viz. the 75th part of a minute, and no other pause is to be made between the words.

In firing by companies by wings, each wing carries on its fire independently, without regard to the other wing, whether it fires from the centre to the flanks, or from the flanks to the centre. If there are five companies in the wing, two pauses will be made between the fire of each, and the make ready of the succeeding one. If there are four companies in the wing, three pauses will be made between the fire of each, and the make ready of the succeeding one. This will allow sufficient time for the first company to have again loaded, and shouldered at the time of firing the last company fires, and will establish proper intervals between each.

In firing by wings, one wing will make ready instantly the other is shouldering. The commanding officer of the battalion fires the wings.

In firing companies by files each company fires independently. When the right file presents, the next makes ready, and so on. After the first fire, each man as he loads comes to the recover, and the file again fires without waiting for any other; the rear rank men are to have their eyes on their front rank men, and be guided by, and present with them.

When troops march to music, a pause in the mind before the latter strikes off, will contribute greatly to that evenness of step, without which no line can move correctly. In some regiments the music does not play until one step has been taken. See Step off.

PAY, or pay of the army, is the stipend or salary allowed to each individual serving in the army; first established by the British government in the year 1800.

**FULL PAY**

Of the Officers, Non-commissioned Officers, and Privates in the British army.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Life Guards</th>
<th>Cavalry</th>
<th>Foot Guards</th>
<th>Infantry of the line</th>
<th>Artillery</th>
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<td>£0 7</td>
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</table>
### FULL PAY

**Of the Officers, Non-commissioned Officers, and Privates in the British army.**

<table>
<thead>
<tr>
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<th>Cavalry</th>
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<th>Infantry of the line</th>
<th>Artillery</th>
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</table>

*Full Pay.* The pecuniary allowance which is made to officers and non-commissioned officers, without any deduction whatsoever, since the abolition of arrears in the British service, which took place in 1797, commissioned and warrant officers, &c. receive their full pay, or daily subsistence. The private soldiers are subject to temporary deductions, for the purpose of appropriating part of their pay and allowances to the expense of their messes, including vegetables, &c. and to a stoppage not exceeding 1s. 6d. per week, for necessaries; which stoppage is to be accounted for monthly, as stated in their regulations of 1st September 1797, and the remainder being 1s. 6d. must be paid weekly to each soldier, subject to the accustomed deduction for washing, and for articles to clean his clothing and appointments.

The full pay of the British army is given in advance on the 25th of every month, and accounted for to government by the several district and regimental paymasters; through army agents appointed for that purpose. For further particulars, see *Military Finance*, page 48, &c. Non-commissioned officers and private soldiers serving as marines, are not liable to any deduction whatsoever from their full pay, on account of provisions. It will be observed, that although the British army is now paid its full pay, in consequence of the abolition of the district, between subsistence and arrears, that pay is nevertheless subject to the usual deductions on account of poundage, hospital, and agency. This will explain the multiplied appearance of the different rates of pay. Thus a captain of infantry, who is nominally supposed to receive 10s. per diem, gets only 9s. 6d. the 2d. going for the above deductions. The full pay of the subaltern officers has been very judiciously increased, but that of the captains, &c. remains as it was in the reign of Queen Anne. For the several rates of full pay, see *Military Finance*, page 66, &c.

*Irish Half-Pay.* Every officer upon the Irish establishment, when reduced to half pay, must swear to, and sign the following certificate:

```
Full Pay. Every officer upon the Irish establishment, when reduced to half pay, must swear to, and sign the following certificate:

County of ________________ of foot, came ______________ this day before me, and made oath, that he is no otherwise provided for by any commission or employment, civil or military, in his majesty's service, than by half pay on the establishment of Ireland, and is on no other establishment of half pay.

Officer's ________________

Name: ________________

On this day ______________

N. B. To be sworn in January, April, July, and October, in every year.
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*Pay-Master.* Is he who is intrusted with the money, and has the charge of paying the regiment. He has no other commission in the line. His pay is 15s. per day.

*District Pay-Master.* An officer appointed for the better management of the interior concerns of the army, when the corps are detached in garrisons on duty, in several districts.

*Pay-Bills.* In the British army these bills are distinguished according to the nature of the service for which they are given. Every captain of a troop or com-
pany receives a regular weekly account from his sergeant, of money to be advanced for the effectives of such troop or company; and on the 24th day in each month he makes out a monthly one for the paymaster, who makes out a general abstract for the agent. The paymaster-general's estimate is likewise called the pay bill.

PAY-LISTS. The monthly accounts, which are transmitted by the several regimental and district paymasters to their agents on the 25th of each month, are so termed.

PAY-Rolls, the same as pay-lists.

PAY-Sergeant. See SERGEANT.

PAY, Fr. the pay of the troops.

PAYEN-Ghent, Ind. the lower mountain. Ghent is the general term for mountains.

PAYS, Fr. This word is variously applied by the French in a figurative sense: Payez, on payer a sort de Peys. To speak cordially at random.

Gagner Pays, (vulgar le pays, Fr.) To leave a country. To go voluntarily into exile. Gagner pays likewise means to gain ground. Avancer peut may be used in the same sense.

Pays, Fr. to speak wide of the subject.

Tirer-Pays, Fr. a familiar phrase among the French signifying to escape.

Pays, Fr. country, locality, ground.

Paysans, Fr. This term was applied by the French to those countries or tracts of territory which had been ceded to France by treaty; as Lorraine; or which had been conquered by force of arms; as Ypres, Tournay, Ghent, Ostend, and several other towns, from the reign of Louis XII.

Paysans-coquins, Fr. Confined, inclosed, or intersected countries. Marshal Saxe has observed, that it is impossible to lay down any specific rule relative to the management of troops in countries of this description. An intelligent and able officer will be governed by the nature of the ground in which he is to act; and as under these circumstances, the context will consist chiefly of a war of posts, and of desultory engagements, in which the most obstinate will be generally the most successful, it will be incumbent upon every military man to recollect, that he must never advance, without having previously secured means for a retreat, should that be judged expedient, and being constantly guarded on his flanks to prevent the fatal consequences of surprise and ambuscade. Although the latter precautions are principally attended to by the general of an army, every partisan or officer commanding a detachment, should be more or less alive to the many mischiefs which must ensue from carelessness and inattention. It would be superfluous to point out what troops are best calculated to act in a close or intersected country. Every military man must know, that mountainous and closed countries, or intersected lands, are best adapted to light infantry manoeuvres, and that cavalry can only act, with safety and effect, in an open country. The solidity of this observation has probably been the cause of so much improvement in light artillery, and in rifle corps. The latter, indeed, by the use which has been made of their particular weapon, and the desultory execution of it in service, have sufficiently shown, that no army ought to move without them.

PAYSANS, Fr. Peasants.

PEACE, has been represented allegorically as a beautiful female, holding in her hand a wand or rod towards the earth, over a hideous serpent, and keeping her other hand over her face, as mourning to behold strife or war. By some painters she has been represented holding in one hand an olive branch, and leading a lamb and a wolf yoked by their necks, in the other; whereas others have decorated her with an olive branch in her right hand, and a cornucopia, or horn of plenty, in her left.

A very celebrated temple was erected for the goddesses of peace at Rome, which was furnished with most of the rich vases and curiosities taken out of the temple of the Jews at Jerusalem. In this temple she was represented as a fine lady, crowned with laurel interwoven, holding a caduceus in one hand, and a nosegay of roses and ears of corn, in the other.

The temple of peace, built by Versailles, was 300 feet long, and 2oo broad. Josephus says, that all the nations which men travel through the world to see, were deposited in this temple.

Place, (Pais, Fr.) rest, silence, quietness; the direct opposite to war, and when the latter prevails, the ultimate object of every contest. This word is frequently prefixed to the term establishment, to signify the reduced number of effective men, in the British army, according to the various formations of corps. Thus one regiment may be twice as strong in time of war, and only half in time of peace. A regiment may also consist of several battalions; the 60th regiment for example has six battalions each of the strength of a regiment; that is, from 1000 to 1200 men each. Whence arises the distinction between war and peace establishments. The standing army of Great Britain, according to law, consists of that force only which is kept up in time of peace, and which is confined to a specific number of regiments. Every regiment, beyond the regulated number, during a war is liable to be reduced; and all within it are said to be out of the break.

PLADA, Ied. a footman who carries a staff.

PECHE, Fr. Peltry.
FECTORAL, (Pectoral, Fr.) a breast plate. This word is derived from the Latin, Pectorale. Among the Romans the poorer soldiers, who were rated under a thousand drachms, instead of the lorica or brigantine, (a leathern coat of mail) wore a pectorale, or breast-plate of thin brass, about 12 fingers square. Some modern troops, such as the cuirassiers, &c. wear pectorals for the direct purposes of defence and bodily protection; but in general small ornamental plates with clasps, have been substituted.

PECULAT, Fr. See PECULATION. PECULATE, PECULATION, the crime of pilfering any thing, either sacred or public, particularly public money, by a person who has the management or custody thereof. This crime is punished in the heirs of the original delinquent.

PECULIAR, (peculiar, Fr.) a private emolument. Occasional ex. mission is paid to officers in the English army.

PECULIARITY, (peculiarity, Fr.) a process of division or form subdivision.

PECULIARITY, (peculiarity, Fr.) a small, light, and more manageable mathematical instrument, composed of various wheels with teeth, which by means of a chain fastened to a man's foot, or to the wheel of a chariot, advance a notch each step, or each revolution of the wheel, and the number being marked at the edge of each wheel, the pages may be numbered, or the distance from one place to another be exactly measured.

PECULIUM, (peculium, Fr.) a piece of wood, used to fasten the cords of a tent.

PECULIUM, (peculium, Fr.) a guard to accompany a prisoner at large.

PECUNIA, (pecunia, Fr.) cash; or copper money; PEER, Ind. Monday.

PECULIAR, (peculiar, Fr.) a French adverb, from which is derived the English term peculiar, signifying, confusedly, in disorder, in hasty, &c.

PELICAN, (pelican, Fr.) an ancient piece of artillery which carried a six pound weight of ball, and weighed two thousand four hundred pounds.

PELLE de bois simple, Fr. a wooden shovel.

PELOTE à fus, Fr. Pelote literally means the bottom of a cushion, a ball, &c. It is here used to signify a species of combustible ball, which is formed into light into a fosse or elsewhere. The composition is pitch one part, sulphur three parts, to one pound of saltpetre. The whole is well mixed together, and incorporated with tow, from which the pelotes are made.

PELoton, Fr. Platoon.

PELotonner, Fr. to gather together, to get into groups.

PELotonner, Fr. to form into a platoon.

PELTA, in antiquity, a kind of buckler, small, light, and more manageable than the Varna which was used by the Amazon, according to Virgil, and reassembled the moon in his first quarter, according to Servius.

PELICAN, (pelican, Fr.) any decree or law which subjects individuals, &c. to penalties. Hence code penal. Létits pénales. The penal code, the penal laws.

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centre. The nature of a pendulum consists in the following particulars. 1. The times of the vibrations of a pendulum, in very small arches, are all equal. 2. The velocity of the bob in the lowest point, will be nearly as the length of the cord of the arch which it describes in the descent. 3. The times of vibrations in different pendulums, are the square roots of the times of their vibrations. 4. The time of one vibration is to the time of descent, through half the length of the pendulum as the circumference of a circle is to its diameter. 5. Whence the length of a pendulum vibrating seconds in the latitude of London, is found to be 39 inches and 2-10ths; and of one half-second pendulum 9-8 inches. 6. An uniform homogeneous body, as a rod, staff, &c., which is 1-3d part longer than a pendulum, will vibrate in the same time with it.

From these properties of the pendulum we may discern its use as an universal chronometer, or regulator of time. By this instrument, also, we can measure the distance of a ship, or of a battery, &c.; by measuring the interval of time between the fire and report of the gun; also the distance of a cloud, by counting the seconds or half-seconds between the lightning and the thunder. Thus, suppose between the lightning and thunder we count ten seconds; then, because sound passes through 1142 feet in one second, we get the distance of the cloud, which will be the number of vibrations made in a minute.

The times of vibrations in different places of the earth are the square roots of the distances of a ship, of a battery, &c., from their station. Gentlemen pensioners, (Gentils-Pensionnaires, Fr.) a band of gentlemen, who guard the British king's person in his own house, and for that end wait in the presence chamber. They were first instituted by Henry VII. They are usually forty in number. Their ordinary arms are guilt pole-axes. Their pension is 100£ per annum; they are usually called beef-eaters, from their usual fat appearance and indolent habits.

PENTACAPULAR, having five cavities.

PENTADROUS, having five sides. PENTAGON, in fortification, a figure bounded by five sides, or polygons, which form so many angles, capable of being filled with an equal number of bastions. It also denotes a fort with five bastions.

PENTAGRAM, (Pentagramme, Fr.) An instrument whereby designs, &c., may be copied in any proportion, without the person who uses it, being skilled in drawing. PENTANGLE, A figure having five angles. PENTANGULAR. See PENTAGON.

PENTAPOLIS, in geography, a coun-

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<tr>
<th>Latitude of Pendulum</th>
<th>Length of Pendulum in Inches</th>
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<tr>
<td>5</td>
<td>39.027</td>
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<td>10</td>
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<td>39.132</td>
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Length of Pendulums to vibrate Seconds at every fiftieth degree of latitude.

Rule.—To find the length of a pendulum to make any number of vibrations, and vice versa. Call the pendulum making 60 vibrations the standard length; then say, as the square of the given number of vibrations is to the square of 60, so is the length of the standard to the length sought. If the length of the pendulum be given and the number of vibrations it makes in a minute is required; say, as the given length, is to the standard length, so is the square of 60, its vibrations in a minute, to the square of the number required. The square root of which will be the number of vibrations made in a minute.
try consisting of five cities. This name was given, particularly, to the valley wherein stood the five infamous cities destroyed by fire and brimstone in Abraham's time. The most celebrated Pentapolis was the Pentapolis Crenuca in Egypt, whose cities were Berenice, Arison, Ptolemais, Cyrene, and Apollonia.

PENTASPAST, (Pentapaste, Fr.) An engine that has five Julies.

PENTATHILON The five exercises performed in the Grecian games, viz. leaping, running, quitting, dancing, and wrestling.

PENTHOUSE, a shed hanging forward in a sloping direction from the main wall of a place.

PEOPLE, of color. Blacks, Mulattoes, so called. They form part of the British territorial army, and are disarmed, in corps, among the West India islands.

PERAMBULATOR. See Perimeter.

PERCH, in mensuration, is ten feet long. See Measure.

PERCUSSION. The impression which a body makes in falling or striking upon another, or the shock of two moving bodies. It is either direct or oblique.

Direct Percussion, is where the impulse is given in the direction of a right line perpendicular to the point of contact.

Oblique Percussion. When it is given in the direction of a line oblique to the point of contact.

Center of Percussion. That point wherein the shock of the percussible bodies is the greatest.

PERCUSSION, striking against or upon.

PERDU, a word adopted from the French, signifying to lie flat and closely in wait. It likewise means the forlorn hope.

A corps PERDU, Fr. Desperately.
A coup PERDU, Fr. At random.
Coup PERDU, Fr. Random shot.

PEREMPTORY. Whatever is absolute and final, not to be altered, renewed, or restrained. Peremptory execution, what takes place immediately.

PERE, Fr. See Per.

PERFIDIOUS, treacherous, false to trust, guilty of violated faith. Hence a perfidious foe.

PERFIDY, want of faith, treachery.

PERGUNNA, Ind. A district.

PERIMETER, in geometry, the extent that bounds any figure or body. The perimeters of figures or surfaces, are lines; those of bodies are surfaces. In circular figures, &c., we use circumference or periphery instead of perimeter.

PERIOD. This word is frequently used in military accounts to express the intermediate time for which money has been issued to officers and soldiers.

PERMANENT Pay, a term used in the returns and financial statements of the British army, when the regular distribution of pay is interrupted, or the effective force is lessened by the absence of one or more individuals, or by any other cause. A correct and faithful statement of broken periods is essentially necessary in every will-regulated regimen, as not only the service but the public purse may be materially injured by the neglect, or underestimation of individuals. Adjutants and pay-masters cannot be too scrupulously minute on this important head.

PERIPHERY, the circumference as of a circle.

PERISTYLE, a circular range of pillars for the support or ornament of any building, &c. used in the ancient amphitheatres.

PERKERNUCKA, Ind. Petty officers are so called in India.

PERMANENT Fortification, is defined to be the art of fortifying towns, &c., so as to resist the attacks of an enemy, that makes regular approaches.

PERMANENT rank, a rank in the army, which does not cease with any particular service, or locality of circumstances; in opposition to local or temporary rank. See Rank.

PERPENDICULAR, (Perpendiculars, Fr.) According to Vauban's system, it is a line raised in a perpendicular direction on the centre of the exterior side of any given polygon. In mean fortification, which prevails more than any other system; the perpendicular contains 30 toises in the exagon, and in polygons that have a greater number of sides, but it contains fewer when the polygons have a less number. The perpendicular is so disposed by this engineer to determine the other lines and angles belonging to a fortification. In proportion as the perpendicular is increased, the extent of the flanks is augmented.

Perpendicular Fortification, that in which all the component parts flank each other at straight angles. Pagans,
other engineers, made the flanks perpendicular to the lines of defence. This is also the denomination of the improved system of Montalembert, which has superseded in a great measure all others, the distinction between this and the old would require a treatise to exemplify it.

PERPENDICULAR direction, in marching, is the regular and straight progress of one or more men over given points. Without the strictest attention is paid to this essential principal in all movements, the greatest irregularity, and, ultimately, the greatest confusion must ensue. Perpendicular and parallel movements, constitute, indeed, the whole system of good marching. When several columns, divisions, or companies, advance, the different pivots must be strictly perpendicular and parallel to each other, otherwise the distance will be lost, and the ultimate object of forming a correct line must be defeated.

PERPETUAL screw, a screw which is acted upon by the teeth of a wheel, and which continues its action for an infinite length of time, or so long as the teeth of the wheel continue to act upon it.

PERQUISITES, all manner of profits arising from an office or place, independent of the actual salary or revenue. In a military sense no perquisites, advantages, or emoluments are allowed to persons in responsible situations.

PERSIAN Language, Ind. There are two sorts: the ancient, called Zebane-Pehliav; the modern, called Zebaneundry.

PERSPECTIVE, is the art of drawing the resemblances or pictures of objects on a plane surface, as the objects themselves appear to the eye, &c. See SCENOGRAPHY.

PERUST, Ind. A small weight or measure, equal to four koodups or puls.

PERWANNA, Ind. An order, warrant, or letter, signed by a Nawab or Nawab, a passport; a custom-house permit, as in the case of the Neyau and vicer.

PASHWA, or PAISHWA, Ind. Prime minister; the acting head of the Maharattah states. Paishwa became the title of one or more men over given points.

PETARDS, Pieces of wood, covered with wool and pitch, which are used to stop the holes that are made in the sides of a ship by cannon ball, during an engagement.

PETARD, or PETARDEAU, an engine to burst open the gates of small fortresses, it is made of gun-metal, fixed upon a board two inches thick, and about 2 1/2 feet square, to which it is screwed, and holds from 9 to 20 pounds of powder, with a hole at the end opposite to the plank to fill it, into which the vent is screwed; the petard thus prepared is hewn against the gate by means of a hook, or supported by three staves fastened to the plank; when fired it bursts open the gate. Its invention is ascribed to the French Huguenots in 1579, who, with them, took Cahors in the same year.

Petards are of four different sizes: the first contains 2lbs. 1 oz. second 11 lbs. 1 oz. third 1 lb. 1 oz. fourth 1 lb. The blind fuse composition for them is of mealed powder, 7 lbs. wood ashes 3 oz.

Works on one Petard:

Hooks to hang the petard 2
Gimblets 2
Brass fuze 1
Wrench to screw the fuze 1
Blue paper partitions 6
Slow match yards 4
Props of forks 2
Copper funnels 1
Tallow ounces 8
Cartridges 2

PETARDER, Fr. to fire petards.

PETARDIER. The man who loads, fires, and fires the petard. It likewise signifies among the French, the man who makes or throws petard.

PETEL, Ind. The head of a village.

PETE, Fr. in a military sense, to explode, to make a loud noise.

PETROLLES, Fr. Squibs, such as children make and use in the streets for their diversion.

PETITE-GUERE, Fr. See GUERE, for its definition.

PETITE-GUERE, is carried on by a light party, commanded by an expert partisan, and which should be from 1000 to 2000 men, separated from the army, to secure the camp or cover a march; to reconnoitre the enemy or the country, to seize their posts, convoys, and escorts; to plant ambuscades, and to put in practice every stratagem for surprising or disturbing the enemy; which is called carrying on the Petite-guere. The genius of these days, and the operations of the American war, have placed the service of such a corps in a most respectable light, as it is more fatiguing, more dangerous, and more deplorable than any other.

To form a corps capable of carrying on the Petite-guere to advantage, prudence requires that it should consist of 1000 men at least, without which a partisan cannot expect to support the fatigue of a campaign, and seize the most important occasions that every where offer, and
which a too great infirmity must make him lose.

It is no less important that this corps should be composed of light infantry and cavalry; and as it is most impossible that the cavalry should be the most active in carrying on the Petit-guerre, it were to be wished that they were likewise the strongest, so as to have 600 cavalry and 400 four companies of light infantry, and twelve companies of cavalry. Each company of infantry to consist of a captain, two first and second lieutenants, six serjeant, and 100 men, including 6 corporals, a quartermaster, 6 serjeants, and 100 horsemen; including 6 corporals, a trumpeter, and 2 farriers.

The commanding officer should have the naming of the officers of this corps, or at least the liberty to reject such as he is convinced are not qualified for such service. To support the honor of this corps upon a solid and respectable footing, the strictest subordination must extend from the chief to all the officers, and the most rigid discipline, vigilance, patience, bravery, and love of glory, ought to pervade the whole corps.


PETRONEL. See Pistol.

PETTAIH, Ind. the suburbs, or a town adjoining to a fort, which is in general surrounded by a stockade or fence of bamboos, a wall, and a ditch.

PETRER, Fr. literally means to cover people. This expression is used, in a military sense, by Belaire, author of Elemens de Fortification, in the following manner — Il faut freiner la surface d'un glacis de Pierrier. The surface of a glacis ought to be well covered with pedefers. See page 538.

PHIALANGE, Fr. See Phalanx.

PHALANX, a word taken from the Greek, signifying the same as legion. In antiquity, a horse, square, compact battalion, formed of infantry, set close with their shields jored, and pikes turned across. It consisted of 6000 men, and Livy says, it was invented by the Macedonians; and hence called the Macedonian phalanx.

PHAROS, (Phare, Fr.) a light-house or pile raised near a port, where a fire is kept burning in the night to direct vessels near at hand. The Pharos of Alexandria, built at the mouth of the Nile, was anciently very famous; whence the name was derived to all the rest. Ozanam says, Pharaohs anciently denoted a straight, as the Phare or Pharo of Messina.

PHARSALIA, so called from Pharsalus, anciently a town in Thessaly, now a village in Thessaly. The spot where this battle was fought between Pompey and Caesar, when they contended for the empire of the world. Plutarch has given the following account of the engagement:

"Both armies were now arrived at the fields of Pharsalia, conducted by the two greatest generals alive; Pompey at the head of all the Roman nobility, the flower of Italy and Asia, all armed in the cause of liberty. Caesar at the head of a body of troops firmly attached to his interests, men who had faced every appearance of danger, were long inured to hardships, and had grown from youth to age in the practice of arms. Both camps lay in sight of each other. In this manner they spent the night; when next morning, Caesar's army was going to decamp, wood was brought him, that a tumult and murmur were heard in Pompey's camp, as of men preparing for battle. Another messenger came soon after with tidings that the first ranks were already drawn out. Caesar now seemed to enjoy the object of his wishes. Now, cried he to his soldiers, the wished for day is come, when you shall fight with men, not with want and hunger. His soldiers, with joy in their looks went each to his rank, like dancers on a stage; while Caesar himself at the head of his tenth legion, a body of men that had never yet been broken, with silence and steadiness waited for the onset. While Caesar was thus employed, Pompey on horseback viewed both armies; and seeing the steady order of the enemy, with the impatience of his own soldiers, he gave strict orders, that the vanguard should make a stand, and keep close in their ranks receive the enemy. Pompey's army consisted of 45,000 men, Caesar's not quite half that number. And now the trumpet sounded the signal for battle on both sides, and both armies approached each other.

"While but yet a little space remained between either army, Caius Crassinus, a devoted Roman, issued from Caesar's army at the head of 120 men, and began the engagement. They cut through the opposite ranks with their swords, and made a great slaughter; but Caesar, still pressing forward, a soldier ran him through the mouth, and the weapon came out at the back of his neck. In the mean time Pompey, designed to sur-
round Caesar, and to force his horse, which amounted to only one thousand, to fall back upon his industry, gave orders that his own cavalry, consisting of 7000 men, should extend itself, and then attack the enemy. Caesar expecting this, had placed 5000 foot in reserve, who rushed out fiercely, and attacked Pompey's horse, but Pompey's cavalry was overthrown, and overpowered by the event retired to his camp in agony and silence. In this condition he sat pondering over the battle, till roused by the shouts of the enemy breaking into his camp, he cried out: "West, into the very camp! and without uttering any thing more, but putting on a mean habit, to disguise his flight, he departed secretly. During the seven years war Frederick the great, king of Prussia, was much in the same situation. He had retired to his tent, and had given up everything for lost, when the daring enterprise of Zieten, who commanded the Death Hussars, turned the fortune of the day and though he lost an im-calculable number of Prussians, he secured the victory, and thereby restored to his master both his kingdom and his crown.

PICKET, a barbarian kind of punishment so called, where a soldier stood with one foot upon a sharp pointed stake: the time of his standing was limited according to the offence.

PIECE, a term used in the West Indies, to signify a venereal taint.

PIERRE, an obsolete French term, signifying a party of soldiers who plunders; a smuggler, one who violates the laws.

PICTÉ, in fortification, stakes sharp at one end, and sometimes shod with iron, used in laying out the ground, of about three feet long; but, when used for pinning the fascines of a battery, they are from 9 to 10 feet long.

Pluck, in artillery, are about 5 or 6 feet long, shod with iron, to put the park lines, and to lay out the boundaries of the park.

PICARD, a pillager, one who violates the laws.

PICKETS, in artillery, are about 5 or 6 feet long, shod with iron, to put the park lines, and to lay out the boundaries of the park.

PIG, a sharp pointed iron tool, used in trenching.

PICKER, used by the pioneers.
Battering Pieces are the large guns which serve at siege to make breaches, such as the 24-pounder, and the culverin, which carries 18lb. ball.

Garrison-Pieces are mostly heavy 12, 18, 24, 36, and 42-pounders, besides wall guns.

Field-Pieces are twelve pounders, demi-culverins, six pounders, sakers, minions, and three pounders, which move with an army, and are parked behind the second line when it encamps, but are advanced in front, in the intervals of battles, &c. and on the flanks in the day of battle. Regiments Pieces, are light 6 pounders: each regiment has generally two of these pieces. See Artillery, French.

PIECE, in India, the various fabrics which manufacture cotton and silk, are distinguished by this term.

PIECE d'Artillerie, one Piece of artillerie, See Cannon, French.

Battering Pieces, See Battering Pieces.

PIECE de campagne, Fr. See Field Pieces.

PIECE de vingt-quatre, Fr. 24-pounders. See Field Pieces.

PIECE de vingt-six, Fr. 36-pounders. When pieces are not specifically named the term is used in the same general sense by the English, as one hundred pieces of cannon, or artillery: cent pièces d'artillerie; but when the calibre is mentioned, it is usual in English to substitute the word pounder for pieces, as une pièce de vingt-quatre; four and twenty pounder.

Démanteler les Pieces, Fr. to dismount cannon.

Enlever les Pieces, Fr. to spike cannon.

Rafraîchir les Pieces, Fr. to spunge or clean out cannon.

PIECE de canon brisé, Fr. The French formerly made use of cannon that could be taken to pieces, and so rendered more portable. This species of ordnance was distinguished as above.

PIECE varié en parallèle ou en carrée, Fr. a piece of ordnance is said to be in this situation, when it is so completely overturned, as to have the wheels of its carriage in the air. Various methods have been proposed by able engineers to raise cannon that have been overturned. See Saint Remi, Manuel de l'artilleur, and a late publication, intituled, Aide Mémoire à l'usage des Officiers d'Artillerie de France, by Gassendi.

PIECE légère, Fr. light pieces. See Field Pieces.

PIECE de la Suède, Fr. field pieces originally invented, and since used among the Swedes.

PIECE Nette, Fr. Artillery pieces that have no defect whatever.

PIECE de Chasse, Fr. a marine term, signifying the cannon that is placed on the stern and forecastle of a ship. We call them chase guns.

PIECE détachée, Travaux avancés des batteries, Fr. These works which cover the body of a fortified place, towards the country; of this description are ravelins, demi-lunes, hornekens, turrets, crown works, capes of Shore, &c.

To be cut in Pieces, (Est échappé, Fr.) The French say, Un tel régime, a de faire échappé. Such a regiment was cut to pieces.

PIED de Rai, Fr. a measure containing twelve French inches, or one hundred and forty lines.

PIED Quarté, Fr. The French square foot contains the same dimensions in length and breadth, giving one hundred and forty inches of surface.

PIED de toise quadrée, Fr. The sixth part of a square toise. The square toise contains 36 feet, the square foot consequently comprehends six feet, and must be considered as a rectangle.

PIED Cadé, Fr. the same measure according to three dimensions. It contains 1728 cubic inches.

PIEDREROIT, Fr. A flint.

PIEDROIT, Fr., a marine term, signify the cannon that is placed on the stern and forecastle of a ship.
and the spots on which they lie are frequently fortified with palisades, in the form of bastions. This instrument was long used in the plural number to signify titles of counts Palatines. They took their name from the Teutonic order, and of those of the Teutonic order, and of those of

PIKES, Pl., Knighl• that were created by Pope Pius IV. in 1560, with the titles of counts Palatines. They took precedence, at Rome, of the knights of the Teutonic order, and of those of Malta.

PIKETTEUR, Pr., to move the feet with great quickness. It likewise signifies to mark time, but not technically so.

PIKETON, Pr., a foot soldier.

PIKET, Pr., a large beam, or stake.

PIEU, Fr., This word is sometimes used in the plural number to signify palisades.

PIGON, Fr., the gable end of a building.

PIKE, in war, an offensive weapon, consisting of a wooden shaft, from 6 to 10 feet long, with a flat steel head, pointed, called the spear. This instrument was long in use among the infantry; but now the bayonet, which is fixed on the muzzle of the firelock, is substituted in its stead. The Macedonian phalanx was a battalion of pikemen.

PIKEMEN, soldiers armed with pikes. The utility of the pike was pointed out by marshal Saxe, b. t. until the French being destitute of firearms for their national guards, were forced to resort to it, the great value of the weapon was not well understood, although the bayonet, which is only a pike on the end of a firelock, was in general use. On an emergency, where arms are scarce, the pike may always be relied on against infantry or cavalry. See Am. Mil. Lib.

PIKESSTAFF, the wooden pole or handle of a pike.

PILE, Pl., A species of javelin which was used by the Romans. They dasted three weapons with so much force, that, according to tradition, two men have been pierced through, together with their shields or bucklers.

PILES, strong pieces of wood, driven into the ground to make a firm foundation for any kind of work.

PILE, any heap; as a pile of balls, shells, &c.

PILES OF SHOT OR SHELLS, are generally piled up in the magazine, in three different manners: the base is either a triangular square, or a rectangle; and from thence the piles are called triangular, square, and oblong.

<table>
<thead>
<tr>
<th>Table of Triangular Piles of Shot.</th>
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Explanations. The numbers in the 1st, 36, 5th, and 7th vertical columns, express the number of shot in the base or side of each triangular pile; and the numbers in the 2d, 4th, 6th, and 8th vertical columns, express the number of shot in each pile.

Rules for finding the number in any PILE.

Triangular Pile. Multiply the base by the base + 1, this product by the base + 2, and divide by 6.

Square Pile. Multiply the bottom row by the bottom row + 1, and this product by twice the bottom row + 2, and divide by 6.

Rectangular Pile. Multiply the breadth of the base by itself + 1, and this product by three times the difference between the length and the breadth of the base, added to twice the breadth + 1, and divide by 6.

Incomplete Piles. Incomplete piles being only frustums, wanting a similar small pile on the top, compute first the whole pile as complete, and also the small pile wanting at top; and then subtract the one number from the other.
### Table of square Piles of Shot.

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</table>

**Explanatory.** The numbers gradually increasing, from 2 to 91, express the number of shot at the base of each square pile; and the numbers opposite, the quantity of shot in each complete square pile. **Example.** No. 20 gives 2871, and No. 30 gives 9455; and so of the rest.

**Pillars, Pt. A buttress.**

**Pillage, (pillage, Fr.)** The act of plundering.

**To pillage, to spoil, to waste, to plunder.**

**Pillager, a plunderer; one who gets a thing by violent or illegal means.**

**Pillar, in a figurative sense, support.** A well disciplined army may be called the pillar of the state; an ill disciplined one, the reverse.

**Pillars, and arches.** It was customary among the ancients, particularly among the Romans, to erect public buildings, such as arches and pillars, for the reward and encouragement of noble enterprise. These marks were conferred upon such eminent persons as had either won a victory of extraordinary consequence abroad, or had rescued the commonwealth from any considerable danger. The greatest actions of the heroes they stood to honor, were curiously expressed, or the whole procession of triumph cut out on the sides. The arches built by Romulus were only of brick, those of Camillus of plain square stones; but those of Cæsar, Drusus, Titus, Trajan, Gordian, &c. were all entirely marble. As to their figure, they were at first semicircular; whence probably they took their names. Afterwards they were built four square, with a spacious arched gate in the middle, and little ones on each side. Upon the vaulted part of the middle gate, hung little winged images, representing victory, with crowns in their hands, which when they were let down, they put upon the conqueror's head as he passed under the triumph.—Fabrici Roma, cap. 15.

The columns or pillars were converted to the same design as the arches, for the honorable memorial of some noble victory or exploit, after they had been a long time in use for the chief ornaments of the sepulchres of great men, as may be gathered from Homer, Iliad 16.

The pillars of the emperors Trajan and Antoninus, have been extremely admired.
for their beauty and curious work. We find them thus particular described in page 53 of Kennett's Roman Antiquities.

The former was set up in the middle of Trajan's forum, being composed of 22 great stones of marble, but so curiously connected as to seem one entire natural stone. The height was 124 feet, according to Eutropius, (Hist. lib. 8.) though Martian (lib. iii. cap. 13.) seems to make them but 123. It is ascended by 125 winding stairs, and has 40 little windows for the admission of light. The whole pillar is incrusted with marble, in which are expressed all the noble actions of the emperor, and particularly the Daunian war. One may see all over it the severest figures of forts, bulwarks, bridges, ships, &c. and all manner of arms, as shields, helmets, targets, swords, spears, daggers, belts, &c. together with the several offices and employments of the soldiers; some digging trenches, some measuring out a place for the tents, and others making a triumphal procession. (Fabricius, cap. 7.) But the noblest ornament of this pillar, was the statue of Trajan on the top, of a gigantic bigness, being no less than 20 feet high. He was represented in a coat of armor proper to the general, holding in his left hand a sceptre, in his right a hollow globe of gold, in which his own ashes were deposited after his death. (Cassius, par. i. c. 2.)

The column or pillar of Antoninus, was raised in imitation of this, which it exceeded only in one respect, that it was 176 feet high; (Martian, lib. vi. cap. 15.) for the work was much inferior to the former, as being undertaken in the declining age of the empire. The ascent on the inside was 100 stairs, and the windows in the inside 59. The sculpture and the other ornaments were of the same nature as those of the first; and on the top stood a colossal of the emperor naked, as appears from some of his coins. See Martian idem.

Both these columns are still standing at Rome, the former most entire. But Pope Sixtus I. instead of the two statues of the emperors, set up St. Peter's on the column of Trajan, and St. Paul's on that of Antoninus. Cassal, part i. c. 81.

Among the columns and pillars we must not pass by, (to use Mr. Kennett's words) the Millionum aureum, a gilded pillar in the forum, erected by Augustus Cæsar, at which all the highways of Italy met, and were conducted all the noble actions. (Martian, lib. iii. cap. 13.) From this they counted their miles, at the end of every mile setting upafflagram, where too came the phrase Prius ab urbe lapit, and the like. This pillar, as Mr. Lassels informs us, is still there.

PILON, Fr. a weapon, the use of which has been recommended by marshal St. aex, in his plan forming several battles.
a company of pioneers, well instructed in that important branch of duty. The regiments of infantry and cavalry have 2 or 4 pioneers each, provided with aprons, hatchets, saws, spades, and pick-axes. The French officers are the same kind of soldiers.

PIONEERS, Fr. pioneers.

PIPE, a tube; a musical instrument; a liquid measure, containing two hogsheads.

PIPE, from the Gaelic *pib rothr*, which signifies great pipe. The Highland bag-pipe is so called, and is an instrument well calculated for the field of battle. When the bagpipe is skillfully performed, its martial music has a wonderful effect upon the native Scotch, particularly the Highlanders, who are naturally warlike.

TAIL-Pipe, a small brass pipe fixed at the swell of the British musquet, which receives the ramrod.

Trumpet-pipe, a small brass pipe near the muzzle of the British firelock, through which the ramrod is let down. It is called trumpet-pipe, from its resemblance to the mouth of a trumpet. The Prussians have no pipes to their musquets; the ramrod being received into a cylinder which runs parallel with the barrel; nor is there any pipe of this kind to the American or the French musquet; the ramrod passing within the three straps of iron or plate rings which bind the barrel to the stock.

PIPE-CLAY and Whiting, a composition which soldiers use for the purpose of keeping their cross-belts, &c., clean.

PIQUE, Fr. See *Pike*.

PIQUICHER, Fr. irregular and ill-armed soldiers, of which mention is made in the history of the reign of Philippe Augustus. They were attached to the infantry.

PIQUIER, Fr. a pikeman, or one who is armed with a pike.

PIRAMIDE, Fr. See *Pyramid*.

PIRAMIDES de Feu, Fr. See *Jets de Feu*.

PIRATE, Fr. a pirate.

PISTOL, Fr. the track or tread a horseman makes upon the ground he goes over.

PISTOLS, a species of small fire-arms, of which there are various sorts and sizes, viz.

Highland PISTOL. The old Highland pistol appears singular enough in the present day. Some that have been preserved, exhibit marks of excellent workmanship. The stock is metal, and the but end so sharply, that when fired off, the pistol can be used as a very serious weapon at close quarters. The Highland pistol, though never used by any of the British regiments, is still worn by every person who wishes to be considered as fully dressed and accoutred in the ancient garb. It is suspended from the left side of the waistcoat.

Horse-PISTOL, so called from being used on horseback, and of a large size.

Management of the Pistol on horseback for military purposes. Every recruit when he joins the horse-drill should be made perfectly acquainted with the handling of his pistol according to rule, and of firing correctly at a mark. To this end he must be taught to draw, load, fire, and return his pistol, by word of command, viz.

1st. The right glove must be taken off, and the goat-skin thrown back.

Draw right pistol. This is done at two motions; 1st, the man must seize the handle of the pistol with his right hand, the back towards the body. 2d, Draw it out of the holster with a brisk motion, dropping the butt of the pistol on the right holster, and keeping the muzzle upwards.

Load Pistol. The pistol is to be dropped smartly into the left hand; open the pan, prime, cast about, and load; as soon as it is laded, seize the pistol by the butt, and come to the same position as in the second motion in drawing; the bridle hand must be kept as steady as possible. In loading the pistol, the barrel is to be kept to the front.

Return Pistol. This is done in two motions; 1st, turn the muzzle into the horse-trotter, with the back of the hand towards the body, and press home the pistol. 2d, Quit the right hand briskly.

Cock Pistol. Drop the pistol into the left hand, cocking with the thumb of the right, and as soon as done come to the second position, viz. muzzle upwards.

To the right aim. Come smartly to an aim, looking well along the barrel to the object you are aiming at, and turning your body as much as is necessary to aim well, but taking care not to displace your bridle hand.

Fire! pull briskly at the word, and as soon as fired, go on with the loading motions; when loaded come to the position as in the first direction, viz. muzzle upwards.

Cock Pistol, as already explained.

To the left aim. This requires particular attention, as the men will be apt to bring their right shoulders too forward, and by that means displace their bodies and the bridle hand.

Fire! As soon as you have fired, you must drop into your seat, and go on with the loading motions, as before directed.

Return Pistol, as already explained.

Draw left pistol. See Draw your right pistol.
Pocket Pistol, a small pistol, which may be conveniently carried in the pocket.

PISTOLES, Fr. See Pistols.

PITANS, PETAN, Ind. according to Mr. Orme, in his History of the Carnatic, the Pitans are supposed to be the descendents of the northern Indians, who were early converted to Mahometanism. They have been reckoned the worst troops. They are habitually fierce.

PETAN Nabois. Certain chiefs in India so called, viz. of Cutiapoo, Canoul, and Savannah.

PITAUX, Fr. This word is sometimes written petaux, and was formerly used to distinguish those peasants that were pressed into the service, from soldiers who were regularly enlisted.

To PITCH, aster, Fr.)

To pitch a camp (assemble on camp, Fr.) to take a position, and to encamp troops upon it according to the principles of marching.

To pitch a tent, to place a certain regulated quantity of canvas upon poles, so as to afford a temporary shelter, against the inclemencies of the weather, for one or more officers or private soldiers. In order that the men may become expert in pitching and striking tents, they ought to be practiced whilst in camp to do either.

PITCHANDAH, Ind. a fortified pagoda on the north bank of the Coleroon, one mile east of Seringham.

PITONS, Fr. nails with round heads. They likewise signify pins with iron fins.

Pitons d'affut, Fr. iron pins which are used to keep the plate-bands of the carriage of a cannon tight and compact.

PIVOT, (Pivot, Fr.) in a military sense, that officer, sergeant, corporal, or soldier, upon whom the different wheelings are made in military evolutions. There are two sorts of pivots distinguished according to the position of the troops who are governed by them, viz. standing pivot and movable pivot. When a battalion, for instance, stands in column of companies, the right in front, the last man upon the left of the front rank of each company, is called the tenor, or standing pivot; and the first man upon the right ditto, is called the outer pivot, or wheeling flank. So much depends upon the accurate position of the different pivots, that no movement can be thoroughly correct unless the most scrupulous attention be paid to them. Officers, in particular, ought to recollect that when they are posted upon the flanks, they become essentially necessary to the preservation of that perpendicular and parallelism of a march, without which direction the best digested manœuvres must be ultimately rendered useless. They must constantly bear in mind, that it belongs to the mounted field officers to watch the aggregate, and that they themselves, being incorporated parts of the different divisions, are to move successively forward, with no other object in view than the perpendicular point before them. For if they once turn to the right or left, or become anxious about the movements of others, instead of being the means of insensibly correcting any errors that might casually occur, they will deviate themselves, and at every step increase the irregularity. On this account, the instant an officer has wheeled his division, he must resume his perpendicular position, look steadily on his leading pivot, preserve his relative distance, and keep his person perfectly square. He ought likewise to be particularly correct in stepping off when the wheel is completed.

Movable Pivot, one which during the wheel of its division advances in a circular direction, instead of turning on the spot where it originally stood. Thus when divisions, &c. are successively wheeled, without being first halted, the pivot upon which they wheel is said to be movable.

In the drill, single ranks are frequently wheeled on a movable pivot. In which case, both flanks are moveable, and describe concentric circles round a point which is a few paces from what would otherwise be the standing flank; and eyes are all turned towards the outer pivot or flank man, whether he is on the outward flank, or on the flank wheeled to.

Pivot-flank, the flanks upon which a line is formed from column. When the right of the battalion is in front, the pivot flanks are on the left of its several companies, platoons, &c. and vice versa, when the left is in front.

Pivot-flank officers, the officer who is on the first flank. In all wheelings during the march in column the officer on that flank upon which the wheel is made must attend himself to the correctness of the pivot.

Platoon Pivots, the men upon whom a battalion marches in column of platoons, is wheeled up into line, or into column, when the line has been formed according to a given front.

It is in the modern improved tactics determined that commissioned officers shall not themselves be the pivots, but that they shall consist of the non-commissioned officers, or rank and file on each flank only; and not the officers on those flanks; but the officers are strictly required to see that the pivots perform their duty correctly, and are responsible for it.

PLACAGE, Fr. in fortification, a kind of revetment, which is made of thick plastic earth, laid along the tals of such parapets as have no mason-work, and which is covered with turf.

PLACARD, Fr. as it is in the original

PLACART, Fr. Dutch language Placard, a term used abroad for a proclamation, edict, &c. put up in all public
places, by government authority; where-
by their subjects are ordered to do, or for-
bear, something expressed therein. See MANIFESTO.

PLACE, Fr. any bill, or public
paper, that is posted up; same as Bul-
letin. It likewise means a libel.

PLACE CARD, Fr. to post up, to li-
bel.

PLACE, emplacement, Fr. any spot or
place which suits the plans of an architect
to build upon.

PLACE, in fortification, signifies, in
general terms, a fortified town, a fortress: hence we say it is a strong place. See Pocket Encyclopedia, vol. V, PLACE.

PLACE of arms (Place d'armes, Fr.).
This term has various significations,
although it uniformly means a place which
is calculated for the rendezvous of men
in arms, &c.

1st. When an army takes the field,
every strong hold or fortress which sup-
ports its operations, by affording a safe
refuge to its depots, heavy artillery, ma-
gazines, hospitals, &c. is called a place
of arms.

2dly. In offensive fortification, those
lines are called places of arms, or paral-
lels, which unite the different means of
attack, secure the regular approaches,
&c. and contain bodies of troops who
either do duty in the trenches, protect
the workmen, or are destined to make
an impression upon the enemy's out-
works.

There are demi-places of arms between
the places of arms. These are more or
less numerous in proportion to the resis-
tance made by the besieged.

Places of arms belonging to the
coverd-way. These are divided into two
sorts, viz. salient and reentrant places of
arms. There are likewise places of arms
composed of traverses, which are practised
or made in the dry ditches of military
towns, in a perpendicular direction to the
faces of the half-moons and the tenail-
lands.

PLACE of arms in a town, a place left
near its centre, where generally the grand
guard is placed. In towns regularly
fortified, the place of arms should be in
the centre. In this place the soldiers of
the garrison parade, form, and mount
guard, &c.

PLACE of arms of an attack, or of a
trench, are deep trenches 15 or 18 feet
wide, joining the several attacks together:
they serve for a rendezvous and station
to the guard of the trenches, to be at hand
in case the enemy should attempt to
overcome them. When attacked, it is customary to make 3 places of arms,
when the ground will permit: the first,
and most distant from the place, is about
300 toises, or 600 yards, from the glaci-
of the covert-way; the second is within
100 toises, or 200 yards, and the third at
the foot of the glacis. See PARAL-
LELS.

PLACE of arms of a camp, was, strictly
speaking, the bill-tents, at the head of
each company, where the arms were
formerly lodged; likewise a place chosen
at the head of the camp for the army to
form in line of battle, for a review, or
the like.

PLACE of arms of the covert-way, is a
part of it, opposite to the re-entering an-
gle of the counterscarp, projecting out-
wards in an angle.

PLACE marécageuse, Fr. a marshy
place. A place of this description may
be easily fortified, and at little expense;
still does it require many troops for de-
tence. Among other advantages, that
of not being exposed to an enemy's mines,
is by no means the least considerable.
On the other hand, piles must be sunk
in almost every direction; and should it
be invested, it is almost impossible
to succour it. Add to these inconveniences,
the danger to which the garrison must be
constantly exposed of being visited by
some contagious disorder.

PLACE élevée dans un plat pays, Fr.
Places that are put in a state of defence
in a flat open country. These places are
almost always secured by regular fortifi-
cations: the soil is good, and there is
always plenty of earth adapted to every
species of military work: there is abun-
dance of water; and should an enemy at-
tempt to carry them by insulting the
works, entrenchments may be easily
thrown up to check him. Add to this,
that it would require two or three armies,
at least, to cut off the various supplies
which can be procured from the country
round. On the other hand, the goodness
and abundance of the soil are equally
beneficial to the besieging army. For the
troops are thereby enabled to show
entrenchments, to build redoubt, erect
batteries, and by thus securing their ap-
proaches, to annoy the besieged at all
hours, and in all ways.

PLACE située sur les bords d'un mon-
grave, Fr. a place situated or built upon
the declivity of a hill. It is very diffi-
cult to fortify a spot of this sort. Where-
er is erected upon it, must be commanded
by the higher ground, and the body of
the place be, of course, exposed to every at-
tack.

PLACE située dans une vallée, Fr. a
town, fortress, or hold that is built in
a valley. Places so situated must be in con-
stant jeopardy, as by getting possession
of the heights, the enemy can always
command them.

PLACE située sur les bords d'un grand
récif, Fr. a place, &c. close to the
banks, or borders ot a large river. Places,
constructed in a situation of this sort,
are preferable to all others, provided
they have a free and uninterrupted
communication with the principal quarter
from whence stores, provisions, and amm
munition may be drawn. They may be
regularly fortified towards the interior of
the country, and it will require little or no
artificial means to secure them on the slope of the river.

**Place de guerre**, Fr. any town or place that is regularly, or irregularly fortified.

**Place basse**, Fr. In fortification the lower flanks according to certain systems are so called.

**Place forte**, Fr. A strong hold or place which presents at all points so many difficult obstacles against a besieging army, that it cannot be carried (except by surprise) unless by the regular means of reducing it be assaulted.

**Places contremites**, Fr. all fortresses, &c. are called places contremites, or countermites, which, independent of their open and visible means of defence, &c. have subterraneous fortifications that are alongside the revetments of the works, under the glacis, or between the neighboring ground, to interrupt the approaches, and destroy the works of a besieging enemy.

**Place haute**, Fr. According to the systems of some engineers (which have not been followed of late years) the place haute, or high place, is that which stands the highest of three platforms that were constructed in the shape of an amphitheatre along the flanks of the bastions. Pagans, Blindel, and others, who have copied from these systems, did so from an idea, that considerable advantages might be derived from a powerful and concentrated discharge of artillery and musquetry. Not conceiving that it was possible to construct casemated flanks free of smoke, they built three or four open flanks one above the other. But they were soon rendered useless and untenable by the shells that fell, and the fragments that flew about in consequence of the demolition of the mason-work. Casemated ramparts, on the contrary, have been known to stand proof against the heaviest discharge of bombs, &c. to take up little room, and to afford ample space for a wide range of artillery, that is kept under cover.

**Places non revêtus**, Fr. all fortified towns or places are so called, when the ramparts that surround them are only lined with plancage or simple turf. In this case the ramparts, so lined or covered, ought to be raised and palisaded above the berme or root-path, to prevent surprises. Hedges made of good quick-set, well interwoven with other wood, and carefully attended to, will save the expense of palissadoes, which in marshy soils soon rot, and require to be replaced.

**Places revêtus**, Fr. All fortified towns or places are so called, whose ramparts are lined or covered with brick or stone. It frequently happens, that the revetment does not reach the terre-plane of the rampart, especially when the parapets are thick and solid; in which case the revetment is more easily covered by the glacis. Parapets are no longer lined.

**Place**, Fr. This word is frequently used by the French, in a military sense, to signify a ration, viz.

**Une place de bouche**, Fr. one ration of provisions.

**Deux places de fournies**, Fr. Two rations of forage.

**To be PLACED.** This expression is frequently used in naval and military matters, to signify the appointment or reduction of officers. Hence to be placed upon full or half-pay. It is more generally applicable to the latter case.

**Placer**, Fr. To fix, to settle. This word is used among the French, as with us, to express the act of placing a person by appointing him to a desirable situation, viz. Placer un jeune homme dans un regiment: to get a young man a commission in a regiment.

**Un lieu bien placé**, Fr. A place is said, among the French, to be well placed, when his forehead runs perpendicularly down between the nostrils.

**Plafond**, Fr. The ceiling.

**Plafonnier**, Fr. To coil or adorn the upper part of a room, &c.

**Plage**, Fr. flat shore, or extent of coast, where there are no creeks, &c. for vessels to ride in.

**Plaie**, Fr. a wound or scar.

**Plan, ground plan, or iconography,** in fortification, is the representation of the first or fundamental tract of a work, showing the length of its lines, the quantity of its angles, the breadth of the ditches, the thickness of the rampart, parapets, and the distance of one part from another: so that a plan represents a work, such as it would appear if cut equal with the level of the horizon, or cut off at the foundation: but it marks neither the heights nor depths of the several parts of the works: that is properly profile, which expresses only the heights, breadths, and depths, without taking notice of the lengths. As architects, before they lay the foundation of their edifice make their design on paper, by which means they find out their faults, so an engineer, before tracing his works on the ground, should make plans of his designs upon paper, that he may do nothing without serious deliberation.

Exact plans are very useful for generals or governors, in either attacking or defending a place, in choosing a camp, determining attacks, conducting the approaches, or in examining the strength and weakness of a place; especially such plans as represent a place with the country about it, showing the rivers, fountains, marshes, ditches, valleys, mountains, woods, houses, churches, defiles, roads, and other particulars, which appear in it.

**Plan of comparison,** a geometrical sketch of any fortress and adjacent country within cannon shot, in which the
different levels of every principal point are expressed.

PLANT, fr. See PLAN.

Levér le PLAN de quelque place de guerre, fr. to draw the plan of a fortified town or place.

PLANCHETTE, fr. a small board or copee-plate, which is used in practical geometry.


PLANARDS, fr. Boards or planks that are laid between the joists or pupils of a building.

PLANCHEYER, fr. to board or floor.

PLANCONS, fr. Literally twigs, or small rounded pieces of wood. A term used in hydraulics. See Béliers.

PLANIMETRY, (planimetrie, fr.) that part of geometry which considers of solids, and the mensuration accustomed to their weight, the above reference to heights or depths, in opposition to stenometry, or the mensuration of surfaces.

PLANISPHERE, (planisphere, fr.) a representation of the globe or sphere on paper, for geometrical and astronomical purposes.

To PLANT, in a military sense, to place, to fix; as to plant a standard. It likewise signifies to arrange different pieces of ordnance for the purpose of doing execution against an enemy or his works. Hence to plant a battery. Johnson applies it to the act of directing a cannon properly. The French use the word generally as we do, except in the last mentioned sense. They say, mettre le canon en batterie. In others the term bears the same signification, with occasional deviations when they apply it figuratively, viz.

Planter le figuet et quelque arme, fr. To quarter one's self upon any body.

Planter la quelque arme, fr. To leave a person abruptly, or, as we familiarly say, to leave another in the lurch.

Planter quelque chose au nez de quelqu'un, fr. To reproach a person with any services, particularly among the Germans. The hussars were an exception to this order which took place on the 28th of May, 1732. In the original order, dated the 1st of February, 1703, it was particularly specified, that in order to be accustomed to their weight, the above-mentioned corps should wear half cuirasses in time of peace. The captains of troops were obliged to keep the half cuirasses belonging to their men in constant repair.

PLAT, fr. Flat, level, low. The flat side of any thing; as, Plat de Sabre.

PLATE, fr. A flat or low country. It is generally used among the French to signify that extent, or space of country, on which scattered houses and villages are built, in contradistinction to towns and fortified places. It is likewise used in opposition to a mountainous country. Les soldats de la garnison vivaient aux dépens du plat pays. The soldiers of the garrison lived upon the adjacent villages of country.

Plonger à Plat de Sabre. To punish a man by striking him with the flat side of a sabre blade. The French likewise say, des coups de plat d'épée. Blows given with the flat side of a sword. This mode of punishing is frequently adopted in foreign services, particularly among the Germans. M. de St. Germain, minister of the war department under Louis XIV. attempted to introduce it in France, but it was resisted by the army at large.

Batir à Plate couture, fr. To gain a complete and decided victory, or to beat an enemy so as to kill or take almost every man he had to oppose. Hence, une armée batir à plate couture, fr. An army completely routed anil undone.

PLATEAU, fr. Hill, hillside, or hilltop.

PLAQUE, fr. The shell of a sword. See Plaque.

Plaques de Plomb, fr. Sheets of lead. These are used for various purposes. In the artillery, to cover the vent of ordnance, and on board ships of war, to stop the holes, &c. that are made by cannon shot.

PLAQUER, fr. To lay one plank over another. To cover any space with earth or turf, &c.

PLASMA, See MOULD.

PLASTER, a piece of greased leather or rag used by riflemen, &c. to make the ball fit the bore of the piece.

Plaster, in building, a substance made of water and some absorbent matter, such as chalk or lime, well pulvcriscd, with which walls are covered.

PLASTRON, a piece of leather stuffed, used by fencing-masters, to receive the thrusts made at them by their pupils.

PLASTRON, fr. A breast plate or half cuirass. In the old French service the gens d'armes, the heavy cavalry, the light horse, &c. were obliged to wear breast-plates on all occasions at reviews, &c. The husars were an exception to this order which took place on the 28th of May, 1732. In the original order, dated the 1st of February, 1703, it was particularly specified, that in order to be accustomed to their weight, the above-mentioned corps should wear half cuirasses in time of peace. The captains of troops were obliged to keep the half cuirasses belonging to their men in constant repair.

PLAQUER, fr. To thrave his cowardice, or he threw his cowardice in his teeth.
near the sea which is well calculated for a descent. As Le Platin de d'Angoul, and the Platin de Chaltelain, near Rochelle.

PLATES, or prise plates, in artillery, two plates of iron on the cheeks of a gun carriage, from the cap-square to the centre, through which the prise bolts go, and on which the haunches rest, when used in raising the breech of the gun, &c.

Breach PLATES, the two plates, on the face of the carriage, on the other cheek. 

Bread PLATE, the clasp, with ornamented heads, by which the cross-belts in the army are attached.

Train PLATES, the two plates on the cheeks at the train of the carriage.

Duller PLATE, the six plates on the wheel of a gun carriage, where the felies are joined together.

PLATEAU, Fr. A flat piece of wood, which is sometimes used to place mortars on, &c.

PLATEBANDES, Fr. Capsquares. A particular part of a piece of ordnance, which, thou, h of a flat form or figure, rises beyond the rest of the metal, and is always cast before the moulding.

There are three sorts of platbands upon a regular piece of ordnance, viz. cap-square and moulding at the breech, cap-square and moulding of the first reinforce, cap-square and moulding of the second reinforce.

PLATEBANDES d'ajust, Fr. Iron capsquares, which serve to keep the trunnions fast between the cheeks of a piece of ordnance.

PLATFORM, (Platfonds, Fr.) The upper part of every brick or stone building which is arched and has more floors than one, is so called. Hence the platform of a tower, or of a redoubt. All pieces of ordnance that are planted on a rampart, or are disposed along the lines of a besieging army, &c. have their platforms.

PLATFORM, in gennery, is a bed of wood on a battery, upon which the gun stands; each consisting of 18 planks of oak or elm, a foot broad, 2 1/2 inches thick, and from 8 to 15 feet long, nailed or pinned on 4, 5, or 6 beams, from 4 to 7 inches square, called sleepers. They must be made higher behind than before by 6 or 9 inches, to prevent too great a recoil, and to advance the gun easily when loaded. They are from 18 to 20 feet long, 8 feet before and 24 or 15 feet behind.

Permanent batteries, if good stone is not to be had, should be made of brick plattons on edge.

PLATFORMS. The common platforms for gun batteries require the following materials for each: 3 sleepers or joists, 6 inches square, 14 feet long.—1 hunter, 8 or 10 inches square, 8 feet long, 14 planks, 1 foot wide, 11 feet long, 2 1/2 inches thick.—20 pickets.

The usual slope of platforms for guns is one inch to every yard.

The platforms for mortar batteries are made with 3 sleepers 8 inches square, and covered with about 12 timbers of the same thickness. They are laid perfectly horizontal, about 15 feet asunder, and 15 feet from the epaulment. This is the distance commonly practised for firing only at 15 degrees elevation; but if the platforms be placed at the undermentioned distances from the epaulment, the mortars may be fired at the angles corresponding.

At 13 feet distance for firing at 30 degrees.

2 feet at 20,

20 feet at 15,

40 feet at 10,

over an epaulment of 8 feet high. See BATTERY.

PLATINE de lumiere, Fr. The same as Plaque de Flancs, as far as it regards cannon. With respect to musqurets and other firearms, it means that part of the hammer which covers the pan.

PLATOON, in military affairs, was formerly a small body of men, in a battalion of foot, &c. that tired alternately. A battalion was then generally divided into 16 platoons, exclusive of the grenadiers, which formed 2 or 4 platoons more, as occasion required. At present a platoon is generally divided into wings, grand divisions, divisions, (plates or companies) subdivisions, and sections; and the word platoon is generally used, to denote a number (from 10 to 30) of recruits assembled for the purpose of instruction, in which case it may be considered as synonymous with company; but a platoon may consist of any number under a battalion.

PLATIR, Fr. To plaster, to patch, to mend, and to put over.

PLATAS, Fr. Rubbish, such as ashes, pieces of broken brick, mortar &c. It is used by reducers, for the purpose of distilling saltpetre into proper vessels.

PLATIER, Fr. To plaster, to patch over.

PLAY, is occasionally applied to a military action; as the cannon play upon the enemy, &c.

PLEBEIAN. From the Latin Plebian, a distinction made between the poor and rich, in a very early period of Rome; which tended to its ultimate destruction. The term is chiefly used in speaking of the ancient Romans, who were divided into senators, knights, plebeians, and commons.

PLEGET, the same as bolster, compress, in surgery, a kind of flat tent, which is laid on a wound, to imbibe the superfluous humors that ooz out, and to keep it clean.

PLEIN a Mer, Fr. The main part or body of a wall.

PLEIN feu, direct shot; or firing so as to hit the mark by the trajectory line.

PLIER, Fr. To give way.
sense, the wing of an army, which gives

the square member which

serves as a foundation to the base of a

pillar.

PLOMBE, Fr. literally means lead.

It is sometimes used in a military sense,
to signify musket shot, &c.

A PLOMBE, Fr. The perpendicular

position of any body or substance. Une

muraille est à plomb. A wall built in a

straight perpendicular direction.

Demander à plomb, Fr. To fall veri-
tically, as the rays of the sun do in certain

attitudes.

Etrier à plomb, Fr. To stand upright.

Marcher à plomb, Fr. To march with

a firm, steady pace.

This word is sometimes used as a

substantive, viz. Perdre son a plomb. To

lose one's balance.

Plonger d'a plomb, Fr. To be un-

steady.

PLONGEE, Fr. A term used in

artillery to express the action of a bomb,

&c. which from the highest point of the

curve it describes, takes a downward di-

rection to strike its object.

Plongée du Rampart, Fr. The slope

of the upper part of the parapet, belonging
to the rampart, is so called. The

slope is likewise named talus supérieur, or

upper talus.

PLONGEONS, Fr. Artificial fire-

works, which are shot into water and

rise again without being extinguished.

PLONGEONS, Fr. Plungers or divers.

Men of this description ought always to

accompany an army, for the purpose of

swimming under bridges of boats, &c. and

making sorties in their bottoms.

PLONGER, Fr. To plunge any

thing into the water. This word is

likewise used to express the discharge of

ordnance from top to bottom, as canon

plongé.

PLUIE de fer, Fr. literally a shower

certain of fire. It signifies a certain quan-
tity of artificial fireworks, whose dis-

charge falls in regular sparks, without

ever deviating into a serpentine direc-
tion.

PLUMB, PLUMMET, a leaden or

other weight let down at the end of a string,
or piece of outfall, to regulate any work

in a line perpendicular to the horizon, or

sound the depth of any thing. It is of

great use to the artillery, as well as to the

engineer.

PLUME, feathers worn by soldiers in

their hats. It ascended the plume

of the helmets.

PLUME, Fr. plume, feather. An

ornament which is worn by military men

in their hats. It ascended the plume

of the helmets.

PLUMMET, This word is derived

from the Latin Plumbum, lead, as a piece

thereof is fastened to the end of a thread.
The instrument itself is used by masons,

&c. to draw perpendiculars with, in order
to judge whether walls, &c. be upright

planes, horizontal, &c. Pilots, at sea,
likewise ascertain their soundings by it.
In the forming of recruits it is used to fix

tines. Plummets which vibrate the required

times of march in the minute, are of great

utility, and can alone prevent, or cor-

rect uncertainty of movement; they

must be in the possession of, and be con-

stantly referred to by each instructor of a

squad.

A musquet ball suspended by a string

which is not subject to stretch, (and must

of course be kept constantly dry) and of

which are marked the different required

lengths, will answer the above purpose,

may be easily acquired, and should be

frequently compared with an accurate

standard in the adjutant's, or sergeant-

major's possession. The length of the

plummet is to be measured from the

point of suspension to the centre of the

ball.

Accurate distances or steps of 24 inches

must also be marked out on the ground,

along which the soldier should be practi-

ced to march, and thereby acquire the just

length of race.

PLUNDER, hostile pillage, or spoils

taken in war.

PLUS, in algebra, commonly denotes

majus, more, or addition, its character is

+. Thus 5 + 7 is read 5 plus 7, or 5

added to 7 is equal to 12.

PLUTEUS, a defensive machine,

which was used by the ancient Romans.

It was composed of wicker hurdles laid

for a roof on the top of posts, which the

soldiers, who went under it for shelter,

bore up with their hands. Kennet, in

page 233, of his Roman Antiquities,

observes, that some will have them, as

well as the vincta, to have been contrived

with a double roof; the first and lower

roof of planks, and the upper roof of hur-

dles, to break the force of any blow,

without disordering the machine. The

plutei, however, were of a different figure

from the vincta, being shaped like an

arched sort of waggon; some having three

wheels, so conveniently placed, that the

machine would move either way, with

equal ease. They were put much to the

same use as the macruli. Father Daniel,

the Jesuit, in his history of the French

militia, makes mention of this machine.

He quotes a passage out of a poem,

intituled the Siege of Paris, by Abbon, the

Monk; the meaning of which is, that

the Normans brought up a large quantity

of machines, that were called plutei by

the Romans, and that seven or eight sol-

diers could be put under cover beneath
them. He further adds, that these machines were covered with bull hides.

The moderns have imitated these plates by adopting mantlets. The chevalier Folard mentions having seen one at the siege of Phillippeville, of an arquebute figure, made of cork, interlaced between two boards, and supported by three wheels that turned upon a pivot.

PLETH, a kind of stuff with a sort of velvet nap or shag on one side, consisting of a web of a single woollen thread, and a double warp; the one of two woollen threads twisted, the other goat's or camel's hair; though there are the same are intersected by the horizon.

PLUSH, a kind of stuff with a sort of velvet nap or shag on one side, consisting of a web of a single woollen thread, and a double warp; the one of two woollen threads twisted, the other goat's or camel's hair; though there are

When a change of position is made on the perspective plane, the old and new positions of the same are sometimes two of them placed at equal distances from the point of sight,

TERTIARY POINT, is a point taken at discretion in the line of distance, wherein all the diagonals drawn from the divisions of the geometrical plane concur.

POINTE, in perspective, are certain points wherein such objects as may be thereby neglected, and without order, under the plan, do tend to terminate. For this reason they are not drawn to the point of sight, nor the points of distances but meet accidentally, or at random in the horizon.

POINS, Fr. Points. POIS, Fr. Points. POIDS, Fr. Weights. POISSONS, Fr. Fish. POIVRE, Fr. Pepper.

POINCON, Fr. A punchen, bodkin. It is likewise an instrument which is used in the making of artificial fireworks, being called poisson à ardre, from a piece of iron running cross-ways near the point, to prevent it from entering too far.

POINT, in geometry, according to Euclid, is a quantity which has no parts, being indivisible; and according to others, that which terminates itself on every side, or which has no boundaries distinct from itself. This is a mathematical point, and is only conceived by the imagination; yet herein all magnitude begins and ends, its flux generating a line, that of a line surface, A line can only cut another in a point.

POINT, in perspective, denotes various places with regard to the perspective plane, viz. point of sight, or of the eye, or principal point, is a point in the axis of the eye, or in the central ray, where the same is intersected by the horizon.

POINT, or points of distance, in perspective, is a point or points, for there are sometimes two of them placed at equal distances from the point of sight.

ACIDENTAL POINTS, or Congruent Points, in perspective, are certain points wherein such objects as may be thereby neglected, and without order, under the plan, do tend to terminate. For this reason they are not drawn to the point of sight, nor the points of distances but meet accidentally, or at random in the horizon.

Point of the front, in perspective, is when we have the object directly before us, and not more on one side than the other, in which case it only shews the foreside; and if it be below the horizon, as still to preserve and halt in its relative position from sight, nor the points of distance, but

POINTER, or points of distance, in perspective, are certain points wherein such objects as may be thereby neglected, and without order, under the plan, do tend to terminate. For this reason they are not drawn to the point of sight, nor the points of distances but meet accidentally, or at random in the horizon.

POINTE, a point which in changes of position materially concerns the movement of one line with another. When a change of position is made on a flank or central point of the first line, the movement of its covering point of the second line, determines the new relative situation of that second line.

To find this point, it is necessary to premise, that if a circle is described from any point (A) of a first line (AE) with a radius equal to the distance between the two lines; then its covering point (a) at that time in the second line will be always in the circumference of that circle, at such place as the second line becomes a tangent to the circle. Should the first line, therefore, make a change of position (AR) either on a flank or central point (A); its covering point (a) will move so as still to preserve and halt in its relative situation (a 2) and by the movement and halt of that point preceded by the one (d) of intersection, every other part of the second line, either by following them, or by yielding from them, is regulated and directed. Between the old and new situation of the covering point (a) and equidistant from each, lies the point (d) where the old and new positions of the second line intersect, and which is a point
material one in the movement of that line.

**Point of honor.** See Honor.

**Point of Appui.** The point upon which a line of troops is formed. When the right stands in front, and the column is marching to form, the first halted company, division, &c., is the point of appui. Thus when the right is in front the designated point of formation is the left.

**Point of intersection.** The point where two lines intersect each other.

**Intermediate point.** In marching forward that is called an intermediate point which lies between the spot marched from, and the spot towards which you are advancing. In forming line, the central point between the right and left is the intermediate point. It is of the utmost consequence to every body of troops, advancing or retreating, but especially in advancing towards the enemy, to find an intermediate point between two given, and perhaps inaccessible objects. The line of march is preserved by these means in its perpendicular direction, and every column may be enabled to ascertain its relative point of entry in the same line.

**Point of alignment.** (Point d'alignement, Fr.) The point which troops form upon and dress by.

**Point of formation, a point taken, upon which troops are formed in military order.**

**Perpendicular point, the point upon which troops march in a straight forward direction.**

**Relative point, the points by which the parallelism of a march is preserved.**

**Point to salute at, the spot on which the reviewing general stands.** This, however, is not to be understood literally, as every infantry officer when he arrives within six paces of the general, recovers his sword and drops it, keeping it in that situation until he shall have passed him a prescribed number of paces. The cavalry salute within the breadth of the horse's neck, the instant the object is uncovered.

**Point of war, a loud and impressive beat of the drum, the perfect execution of which requires great skill and activity. The point of war is beat when a battalion charges.**

**Point de jour, Fr. break of day; dawn.**

**Point de vue, Fr. prospect, sight, aim.**

**De point en blanc, Fr. point blank.**

**A point, Fr. in time.**

**A point moment, Fr. seasonably.**

**Le point, Fr. the point of the sword.**

**Point is also a steel instrument of various use in several arts. Engravers, etchers, wood-cutters, stone-cutters, &c., use points to trace their designs on copper, wood, or stone.**

**Point blank, (But en blanc, Fr.) in artillery, denotes the shot of a piece levelled horizontally, without either aiming or sinking the muzzle. In shooting thus, the bullet is supposed to go in a direct line, and not to move in a curve, as bombs and highly elevated random shots do. We say supposed to go in a direct line, because it is certain, and easily proved, that a shot cannot fly any part of its range in a right line strictly taken; but the greater the velocity, the greater it approaches to a right line; or the less crooked its course.**

**For the point blank ranges of different pieces of ordnance, see the different tables.**

In the French point blank or set en blanc, what the English artillery call the line of metal elevation; in most guns between one and two degrees.

**PETITS, Fr. to point; as, pointer au canon, To point a cannon.**

**POINTEURS, Fr. Levellers. Officers in the old French artillery, who were subordinate to the extraordinary commission; but who were never employed except upon field service.**

**POINTS d'appui, Fr. Basis, support.**

The general signification of this term expresses the different advantageous points, such as castles, fortified villages, &c., which the general of an army takes possession of in order to secure his natural position. In a more limited sense, they mean those points which are taken up in movements and evolutions. See Point d'appui, Am. Mil. Lib.

**POINTING of a gun or mortar, is the placing either one or other, so as to hit the object, or to come as near it as possible.**

**To POISON a Piece, (Exclusur une pièce, Fr.) in gunnery, to clog or nail it up.**

**POISSON, Fr. literally means fish.**

**POITREL, armor for the breast of a horse.**

**POIX, pitch.**

**POIX, Clark, Fr. Robin.**

**POLACRE, Fr. A lapped coat.**

**POLACRE, or Polaque, Fr. A Levantine vessel, which carries a smack sail on the mizen and main mast, and square sails on the main mast and bowsprit.**

**POLAIRES, Fr. Poits.**

**POLE, in a four wheel carriage, is fastened to the middle of the hind axle, and passes between the fore axle-tree and its bolster, fastened with the pole-pin, so as to move about it; keeping the fore and hind carriages together. It is also called the tongue.**

**POLES, in castrametation, long round pieces of wood, by which a marque or tent is supported. There are three sorts, viz.**

**Ridge Pole, a long round piece of wood, used in the most severe weather.
wood, which runs along the top of an officer's tent or marquee, and is supported by two other poles, fixed in the front part of an officer's tent or marquee, and kept in a perpendicular position by means of two strong cords, called weather cords, that run obliquely from each other, across two other cords from the rear pole, and are kept fast to the earth by wooden pegs.

Rear Pole, a strong pole, which is fixed in the back part of an officer's marquee or tent, and is kept in the same relative position as has been described above. Wood, which runs along the top of an officer's tent or marquee, and is kept in a perpendicular position by means of two strong cords, called weather cords, that run obliquely from each other, across two other cords from the rear pole, and are kept fast to the earth by wooden pegs.

Fire Poles, or Rods, artificial fireworks. They are generally of the length of several feet, and of the thickness of two inches at most. One of the ends of the fire pole is hollowed out with three or four slits to the length of two or three feet. Into one of these slits are fixed rockets or squibs. Paper crackers are of the fire pole is hollowed out with three or four slits to the length of two or three feet. Into one of these slits are fixed rockets or squibs. Paper crackers are fixed in the front part of an officer's tent or marquee, and is kept in a perpendicular position by means of two strong cords, called weather cords, that run obliquely from each other, across two other cords from the rear pole, and are kept fast to the earth by wooden pegs.

Rear Pole, a strong pole, which is fixed in the back part of an officer's marquee or tent, and is kept in the same relative position as has been described above. Wood, which runs along the top of an officer's tent or marquee, and is kept in a perpendicular position by means of two strong cords, called weather cords, that run obliquely from each other, across two other cords from the rear pole, and are kept fast to the earth by wooden pegs.

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Front Pole, a strong pole, which is fixed in the front part of an officer's tent or marquee, and is kept in a perpendicular position by means of two strong cords, called weather cords, that run obliquely from each other, across two other cords from the rear pole, and are kept fast to the earth by wooden pegs.
which existed during the French monarchy, is comprised in this institution. See Military School.

Pomada, a branch of the wooden hoard, by laying one hand ever the pommel of the saddle.

Pomaria, in ancient architecture, the space of ground which lay between the walls of a fortified town and the inhabitants’ houses. The term is still used among modern architects, particularly by the Italians, as Peter Canaletto, and Alighieri, to describe the breadth of the area plaine of rampart, its inward talus, and the vacant space which is usually left between this talus and the houses of the town.

Pommel, (pommeau, Fr.) a piece of brass or other substance, at top, and in the middle of the saddle bow, to which are fastened the holsters, stirrups, etc.

Pommels, Fr. round pieces of wood which are variously used for ornament, and in cases of attack, float bridges may be substituted in lieu of both.

Ponant, or Pontoon, a kind of flat-bottomed boat, whose canvas of wood is laced thin and without anything to serve to lay bridges over rivers for the artillery and army to march over. The French pontoons, and those of most other powers, are made of copper on the outside; though they cost more at first, yet they last much loner than those of tin; and, when worn out, the copper lends nearly for as much as it cost at first; but when that of tin are rendered useless, they yield for nothing. The British pontoons are 21 feet long, 5 feet broad, and depth within 2 feet 3 inches.

Ponnces, Fr. a small bridge of one arch, which is thrown across a canal or rivulet.

Poncer, Fr. to rub, or pounce upon anything.

Poniard, a little pointed dagger, very sharp edged.

Pont, Fr. a figurative expression which the French use, when they suffer an enemy, whom they have detected, to retire without molestation. Hence faire un pont d’or a son ennemi, To shut your enemy to escape.

Ponte, Fr. covered in, as a veil is which has a deck.

Ponte, Fr. A bridge; a machine made like a boat or boat, of copper-plated, upon which planks are laid over which troops pass as on a bridge. See Pontoon.

Pontone, Fr. Lighterman.

Pontes flottante, Fr. See Floating Bridge.

Ponte levato, Fr. See Drawing Bridge.

Ponte tourinant, Fr. A wooden bridge. It is of the nature of a drawbridge, with this difference, that it turns upon a pivot and goes entirely round.

Ponte d’als, Fr. A wooden bridge.

Ponte de mer, Fr. A bridge of ropes.

Ponte de fer, Fr. A bridge of chains.

Pont suspendu, Fr. A bridge of hinges.

Ponte de sortie, Fr. A swing bridge.

Ponte dormant, Fr. A wooden bridge, which is generally laid upon the face of a fortified town, for the purpose of maintaining a constant communication between the main body of the place and the works and country round. These bridges are not thrown entirely across the fosses, but terminate within twelve or fifteen feet of the revetment; the space from thence is supplied by drawbridges. When the ponte dormant are very long, a swing bridge is constructed in the centre of it. When the ditches are wet, and so constantly supplied with water that the depth of it is generally the same, braces of boats may be used instead of ponte dormant. Aid in cases of attack, float bridges may be substituted in lieu of both.

Pontoon, or Pontoon, a kind of flat-bottomed boat, whose canvas of wood is laced thin and without anything to serve to lay bridges over rivers for the artillery and army to march over. The French pontoons, and those of most other powers, are made of copper on the outside; though they cost more at first, yet they last much longer than those of tin; and, when worn out, the copper lends nearly for as much as it cost at first; but when that of tin are rendered useless, they yield for nothing. The British pontoons are 21 feet long, 5 feet broad, and depth within 2 feet 3 inches.

Pontoons. Length at top, 21 feet 6 inches. Length at bottom, 17 feet 2 inches. Width, 4 feet 9 inches, or 5 feet. Depth, 2 feet 3 inches.
The common pontoons will support a weight of 4 or 5000 pounds. They are generally placed, in forming a bridge, about their own width asunder. See Bridge.

Pontoon carriage was made with two wheels only, and wo long side pieces, whose fore ends are supported by a limber, and served to carry the pontoon, boards, cross timbers, anchors, and every other thing necessary for making a bridge; but better experience places them on four wheels.

Ponte, Fr. bridge, is made of pontoons, slipped into the water, and placed about five or six feet asunder; each fastened with an anchor, when the river has a strong current, or on a strong rope that goes across the river, or runs through the rings of the pontoons. Each boat has an anchor, cable, baulks, and chests. The baulks are about 3 or 4 inches square, and 21 feet long. The chests are boards joined together by wooden bars, about 3 feet broad, and 21 feet long. The baulks are laid across the pontoons at some distance from one another, and the chests upon them joined close, which makes a bridge, in a very short time, capable of supporting any weight.

Foolbundy, Ind. a dam to prevent inundations; an embankment a dyke.

Poona, Ind. a day fixed for the Zundars to bring in their balances for the year.

Poonea, Ind. the Indian name of a month.

Poor, indigent, necessitous, oppressed with want.

Poops in resources and expences, of a limited conception; of a narrow understanding; unequal to an arduous enterprise.

Poor or Forex, Ind. when it terminates a word, means town, or city; as Vizagapatam, &c.

Poule, Ind. the name of a month following Anglis: it in some degree accords with December and January.

Poushtay Lamset, Ind. embankments of rivers. It likewise means bridges thrown over rivers.

Pouskut, Ind. a small weight, measuring eight koonchies, or sixty four handfuls; one koonchi being equal to eight handfuls. See Page 539.

Portal (portail, Fr.) the front or facade of a large building, where the principal gate stands.

To Port, to carry.

Port arms, a word of command which has been adopted during the present war, and practised in the British army. It consists in bringing the firelock diagonally across the chest from the carry. This position of the musquet affords a great facility to the person who inspects the touch-hole, &c. In dismissing guards, preparing to charge, &c. soldiers are ordered to port arms. The French do not practice this method. Their word of command, haut les armes, corresponds with our return.

Port-cloze, or Port callier, in fortification, is an assemblage of several large pieces of wood, joined across one another like a harrow, and each pointed with iron at the bottom. They are sometimes hung over the gate-way of old fortified towns, ready to let down in case of a surprise, when the gates could not be shut.

Port face, in artillery, a composition put in a paper case to fire guns and mortars, instead of a linstock and match. See Laboratory Works.

Portglaive, Fr. See Porte-Epee.

Port de l'arme, Fr. the carriage of the firelock.

Porte d'armes, Fr. the person who Port-enceign, carries the colors.

Porte Stanba, Fr. the standard bearer.

Portes feu, Fr. a machine made of wood or copper, by which fire is communicated to unpowered in a shell, fuse, or piece of ordnance. It is sometimes made of pasteboard. Where there is any ground to apprehend that a cannon will burst, the primping made of a certain composition is put into the pasteboard case, by which means the cannoner has time to retire before any accident can happen.

Portes feu, Fr. is likewise used among artificers to signify all sorts of fusées or matches, by which fire is communicated to many quarters at once. They last according to the nature of the composition with which they are made up.

Portes feu brise, Fr. in artificial fireworks, a species of carriage which is bent into a curve by means of a sloping piece of wood.

Porte voix, Fr. a speaking trumpet.

Porte musquton, Fr. an awrel.

Porte arquebus, Fr. the king's gun-bearer.

Porte épée, Fr. a sword bearer. It likewise means a sword belt.
Portes, Fr. a gate. Portes d'une ville.
The gates of a fortified town.

Porte d'enceinte, Fr. a town gate.

Porte de secours, Fr. the gate in a citadel, which has an outlet towards the country, is so called. By means of this gate the garrison can always receive supplies or reinforcements, in cases of civil insurrection, or under circumstances of surprise.

PORTÉE du fusil, Fr. by this expression the French generally understand the distance which a musket-shot goes to its ultimate destination. It is supposed to vary from 120 to 150 toises.

Porte des pièces, Fr. the flight, range, or reach of cannon.

Porter à tout volée, Fr. the flight of a cannon shot when it makes an angle of 45 degrees with the horizon, or level of the country. In this manner it completes the greatest possible range.

Porte de but en blanc, Fr. the forward direction and flight of a ball, constituting a straight line, which it describes from the mouth of the piece to its ultimate object. It has been generally found, by experience that the distance so described, could not exceed 300 toises. Beyond that, the ball has been known to deviate. According to Belidor, pieces of ordnance will carry farther in the morning and at night, when the weather is cool and rarefied, than in the middle of the day, or at noon, when the heat of the sun prevails. This circumstance is amply discussed in his Bombardier Francois; and his observations were proved to be correct by experiments made in June, 1744, at Essonne. These experiments commenced at seven o'clock in the morning, and lasted till twelve. It was remarked, that the shells, which were thrown out of three mortars, gradually fell short of their original range. Besides the portée à toute volée, and the portée de but en blanc, or the full range and the point blank shot, there is the récepteur, which Marshal Vauban invented. See Recepteur.

PORTER, Fr. to carry. It is a marine term; as porter toutes ses voiles. To carry all her sails. It is likewise used as a word of command, viz. Forces vos armes. Carry arms.

Porter une botte, Fr. to make a thrust.

Portes d'une ville de guerre, Fr. openings which cross the ramparts of a fortified town or place, and are generally arched over. These openings are usually made in the middle of the curtain, between two bastions. They are from nine to ten feet broad, and from thirteen to fourteen feet high. The gates are mostly decorated with trophies of war; and in some instances a very superfluous magnificence is exhibited.

Porteurs d'eau, Fr. Water carriers.

Amongst the Turks the Sakkas, or water-carriers, are taken from the lowest rank of soldiers belonging to the Capituly in drapery. The number of these men depends upon the nature of the service on which the Turks are employed. They are under the orders of the officers who command companies; and although their situation is not only the most degrading, but the most laborious in the army, they may nevertheless become soldiers. Their dress consists of brown leather; and from the continual fatigue which they undergo, their appearance is wretched in the extreme.

PORTFIRE, a composition of meal powder, sulphur, and saltpetre, driven into a case of paper to serve instead of a match to fire guns.

PORTFIRE composition. Saltpetre, 60 parts; sulphur, 40 parts; meal powder, 20 parts. Length of each, 10 inches.

One will burn from 12 to 15 minutes.

Weight of one dozen, 1 lb. 15 oz.

Portfires were made at Gibraltar in the following manner: two ounces of nitre was dissolved in a gallon of water, and sheets of soft brown paper dipped in the solution: these when dry were rolled up to about the size of common portfires. See English New Annual Register, 1807, for an article on wooden portfires.

PORT-FOLIO, in a general acceptance of the term amongst us, is a species of large leather case, made like a pocket book, and calculated to carry papers of any size. Among the French it is not only signifies the same thing, but likewise a box, made of pasteboard, in which are contained the several papers that relate to any particular department. The adjutants, quarter-masters, &c. belonging to the staff, should be provided with portfolios for the purpose of keeping their reports, &c. in regular order.

PORT-GLAIVE, from the French porteur and glaive. One who carries the sword before a prince or magistrate.

PORT-HOLES, in a ship, are the embrasures, or holes in the sides of a ship, through which the muzzles of cannon are run.

PORTIERES, Fr. Two pieces or folds of wood which are placed in the embrasure of a battery, and which close the instant the piece has been fired. They serve to cover the cannoners from the fire of the enemy, and to resist the discharge of musquertry. They are, however, seldom or ever used except when the batteries stand close to the counterscarp.

PORTICO, (portique, Fr.) in architecture, a kind of ground gallery, or piazzas, encompassed with arches supported by columns, without any immediate relation to doors or gates, where people walk under cover. The roof is commonly vaulted, sometimes flat. The ancient called it Lunear.

PORTMANTEAU, (Vallé, Fr.) a
cloak bag to carry necessaries in a journey. It is sometimes made of leather.

PORTMOTE, a court held in port town. It is sometimes made of leather.

PORT ropes, in a ship, such ropes as serve to haul up and let down the ports on the quays. The corporals who post the port holes on the quays are directed to instruct them, for the safety of certain vessels have to be raised or lowered.

POSE, (grandpasse, Fr.) a French military term, signifying the extraordinary sentinels or guards, which after retreat are posted in a fortified town or place, for the safety of certain vessels. The corporals who post the sentinels are directed to instruct them, not to suffer any person to go upon the port, except the officer who is directed to do so.

POSES, (Fr.) to lay down. It is used as a sign of command in the French artillery, &c. viz. Pose vos leviers; lay down your levers.

POSES une sentinelle, Fr. to post a sentry.

POSÉES, Fr. the sentinels that are posted.

Priming POSITION, in the old manual exercise. Firing three deep the priming position for the front rank is the height of the waistband of the breeches; for the centre rank about the middle of the stomach; and for the rear rank close to the breast. The firelock in all the positions is kept perfectly horizontal.

But in the modern exercise, the rear rank does not fire; but loads for the centre rank, whenever they form in three ranks, the whole are quarter faced to the left, so that the firelock of each has an interval; and all the firelocks are held equally high on the right hip. Position, (Position, Fr.) This word is variously used in a military sense, both by the French and English. It is applicable to localities; as the army took an excellent position, or drew up upon very advantageous ground, and in a very advantageous manner. Frederick the great, of Prussia, has laid it down as a maxim, that every army should take up a position in rear of a forest, so as to be prevented from observing the movements of the enemy, and from countering their plans.

Position of the soldier without arms. The equal squareness of the shoulders and body to the front is the first and great principle of the position of the soldier; the body must be in a line, and two inches apart; the knees straight, without stiffness: the feet turned out, so that the feet may form an angle of about 60 degrees: the arms hang near the body, but not stiff; the flat of the hand, and middle finger, touching the seams of the pantaloons; the elbows and shoulders are to be kept back? The belly rather drawn in; and the breast advanced, but without constraining the body to be upright, but inclining rather forwards, so that the weight may not be too much on the heels as on the fore part of the feet: the head to be erect; and neither turned to the right nor to the left; the eyes alone will be placed to the right.

Position of the soldier with arms. The body of the soldier being in the position described, the firelock is to be placed in his left hand, against the shoulder; the thumb alone to appear in front; the four fingers to be under the butt; and the left elbow a very little bent inwards, so as not to be separated from the body, or to be more backward or forward than the right one: the firelock must rest full on the hand, not on the end of the fingers; the knuckles of the middle finger to press against the hip joint, as that on raising the left foot from the ground the motion of the joint be felt with the knuckles, and be carried in such manner as not to raise, advance, or keep back, one shoulder more than the other; the butt must therefore be forward, and as low as can be permitted without constraint; the fore part a very little before the front of the thigh; and the hind part of it pressed with the knuckles against the joint. It must be kept steady and firm before the hollow of the shoulder; should it be drawn back, or carried too high, the one shoulder should be advanced, the other kept back, and the upper part of the body would be distorted and not square with respect to the limbs.

The position in which a soldier should move, determines that in which he should stand still. Too many methods cannot be used to supply the recruit, and furnish the air of the rustic. But that excess of setting up, which stiffens the person, and tends to throw the body backward instead of forward, is contrary to every true principle of movement, and must therefore be most carefully avoided. If the firelock be carried well in the hand, and against the hip joint, the barrel of the firelock will stand perpendicular, and this will guide the body which should be thrown against the upright firelock, and will be found to agree with the balance of the body upon the fore part of the foot; and conclude to opening the chest and keeping an erect front.

Position in marching. In marching, the soldier must maintain, as much as possible, the same position of the body. See March.

Change of Position, the positive or relative movement of a body of troops on any given point.

New Positions that a regiment or line can take with respect to the old one are;

Parallel Positions, or nearly to the old one.

Intersecting Positions by themselves, or their prolongation, some part of the old line or its prolongation will, according to circumstances, take them up by the diagonal march; the flank match of divisions after wheeling into
column; or the movement in open column to the new line, and its subsequent formation in it.

New interesting Positions, which themselves cut the regiment, will, in cavalry movements, be taken up by the diagonal march; or the flank march ranks by three's of divisions. All other new positions, which themselves, or their prolongation, intersect the old line, or its prolongation, will in general be taken up by the march in open column, and its subsequent formations, when it arrives at the line; some such positions will, however, allow of, and require being made by the echelon march, or by the flank march of divisions. In general the regiment will break to the hand which is nearest to the new position, be conducted to its nearest coin in the new line, and form on it as directed.

Position of the soldier without arms.

Position of the soldier with arms.

Position of extension.

Position of the soldier without arms.

POSSED, Fr. to possess, to be in possession of.

POSSE, an armed power, called out on any particular emergency, as the posse consists: who may be called out by the sheriff, or marshal, to suppress outrages of the peace.

POSSESSION, to take possession, is the act of occupying any post, camp, fort, &c., which might facilitate the operations of any army, or which previously belonged to the enemy.

POST, in war, a military station; any sort of ground fortified or not, where a body of men can be in a condition of resisting the enemy.

Advanced Post, a spot of ground, seized by a party to secure their flanks, and the post behind them.

Post of honor. The advanced guard is a post of honor: the right of the two lines is the post of honor, and is generally given to the eldest corps: the left is the next post, and is given to the next eldest, and so on. But the laws of military discipline forbid an inconvenient accordance with this practice, as the circumstances of the case may require a very different arrangement, which it would be wanting to oppose. The station of a sentinel before the colors, and the door of a commanding officer, is a post of honor.

Advantageous POST. Every situation is so called which an enemy occupies in such a manner, that not only mere force of arms, but great military skill, and many stratagems, are required to dislodge him. We have various instances in history of how much may be done on both sides, when an enemy has taken up an advantageous post, and another finds it necessary to drive him from it. This subject has been amply discussed in a French work intituled, *Stratagems de Guerre*, page 71, &c.

Posts of exercise in the rear, the relative situations which officers take in the rear; when the ranks of a battalion are opened for the purpose of going through the manual and platoon exercises. It is likewise a cautionary word of command, viz. The officers will take post in the rear.

To Post. In the disposition of troops, to place the officrs, music, drummers, file, and pioneers, according to their several ranks and appointments, either for inspection, or exercise in the field.

To post up, (afficher, Fr.) To hold up to public censure or ridicule.

To be posted, in a familiar sense, signifies to be publicly announced as an infamous or degraded character. Hence to post a man as a coward is to stick his name up in a colleé-house or elsewhere, and to accuse him of want of spirit, &c. The French use the phrase *officer* in the same sense. They likewise say figuratively *afficher sa bonne*; to publish or post up one's own disgrace; meaning thereby, that some persons are so totally regardless of decency and decorum, as to express sentiments which are unbecoming the character of an officer, or a gentleman.

POSTAGE of Letters. In the British service, non-commissioned officers and private soldiers are privileged to send or receive letters, from any part of that country on payment of one penny only for the postage.

In the instructions to postmasters, (Feb. 4th, 1799,) concerning the exemptions granted to seamen in the navy, and privates in the army, in respect to the postage of their letters, it is specified, that

No single letter, sent by the post from any seaman or private employed in his majesty's navy, army, militia, or able regiments, artillery, or marines, shall, whilst such seamen or private shall be employed on his majesty's service, and not otherwise, be charged with an higher rate of postage than the sum of one penny for the conveyance of each such letter; such postage to be paid at the time of putting the same into the post office of the town, or place from whence such letter is intended to be sent by the post.

*Provided, that no such letter shall be exempted from postage, unless there shall be written thereon, in the hand-writing of, and signed by the commanding officer, for the time being, of the ship or vessel, or of the corps, regiment, or detachment to which such seamen or private shall belong, the name of such commanding;*
officer, and of the ship, vessel, corps, regiment, or detachment commanded by him.

No single letter, directed to any such seaman, or private, upon his own private concerns, only whilst such seaman, or private, shall be employed on his majesty's service, and not otherwise, shall be charged with a higher rate of postage than one penny for each such letter, which post charge shall be paid at the time of the delivery thereof.

Provided, that no such letter shall be exempt from the rates of postage chargeable upon letters, unless any such letter shall be directed to such seaman, or private, specifying the ship, vessel, regiment, troop, corps, company, or detachment to which he may belong; and provided, that it shall not be lawful for the deputy postmaster of the town or place to which such letter shall be sent to be delivered, to deliver such letter to any person except to the seamen or private to whom such letter shall be directed, or to any person appointed to receive the same by the commanding officer of the ship, &c. to which such seaman, or private, to whom such letter shall be directed, shall belong.

The exemptions do not extend to letters sent to or received from countries independent of England: they do extend to the West India Islands and British America.

All postmasters are desired to take particular notice that double letters to and from soldiers and sailors and their families, are liable to the full double rates, the same as letters in general; and some postmasters have conceived that letters containing money might pass under the exemptions of the act, they are desired to understand, that such letters are chargeable with full double rates also.

Recruiting sergeants, who may carry on a correspondence with their officers on the recruiting service, cannot send or receive their letters on that service under the exemptions granted by this act.

The above exemptions granted by the legislature do not extend in the same to any other than seamen, and not to officers of any description whatever; and in the army, only the privates, with sergeants and serjeant-majors are included. Many officers, both in the army and navy, having constructed the act to extend to their own correspondence, it is hereby publicly stated, that such a construction is altogether inapplicable.

The act in its literal meaning includes in the nature of it all non-commissioned officers, although they are excluded by this official interpretation.

According to a letter issued from the post office, dated the 18th Sept. 1799, to all postmasters, in addition to the rates above-mentioned, these letters are chargeable with inland postage to and from London, excepting single letters to and from soldiers and sailors, and it is to be left to the opinion of the writers to pay the post office or not on putting them into any post office.

POSTÉ, Fr. a word generally used in the plural number to signify small shot, viz. Sur tel est chargé de douze au privac poste, his gun or musquet was loaded with twelve or fifteen shot.

POSTES, Fr. This word is always used in the nautical sense when of the pay or to any specific appointments as, poste avancé, an advanced post. Poste avancés, an advantageous post. Mauvais poste, an unfavorable post. The French say figuratively, un poste est salubre, thereby meaning that the troops in it may be easily surprised.

Postes de campagne, Fr. Everlasting construction or group of buildings that will admit of being defended, and is consequently tenable, is called a poste de campagne, or field work. Of this description are churches, houses, country houses, farm houses, villages, redoubts, &c. in which a sufficient number of men may be stationed for the purpose of holding out against an enemy, until succours can arrive. Chevalier Flanart has written upon this subject; and since him, F. Gaultier, postmaster and illustrator of A. P. J. Belair, chief of brigade in the French army. We recommend the latter production, which appeared in 1793, to the perusal of every officer. The work is intituled, Instruction adressée aux officiers d'infanterie pour tracer et construire tours sorties d'ouvrages de Campagne. See likewise, Aide Mémoire pour les officiers d'arteillerie. A late work, intituled, Duties of an Officer in the Field, &c. by Baron Gross, of the Dutch brigade, is very useful; the whole of this tract is incorporated in the American Military Library.

Post avancés, Fr. See Advantages Post. Postes postérités, Fr. small detached posts.

Postes intermédiaires, Fr. intermediate posts, or men so stationed between different corps, that, in case of urgency, they may with ease advance to the support of that which is more immediately threatened by the enemy.

Postern, more frequent a sally-port, is a small door in the flank of a bastion, or other part of a garrison, to march in and out unperceived by an enemy, either to relieve the works, or make salies.

Postiche, Fr. any thing fictitious or put in room of something that is real and natural. In military matters, among the French, it serves to distinguish supernumerary or auxiliary soldiers that are taken from one, or more companies, to strengthen any particular body of men.

Postilion, Fr. an express boy, which is kept in French seaports for
the purpose of carrying and bringing intelligence.

POT, Fr. a vessel used in the making of artificial fireworks, &c.

Stink Pot, a vessel filled with combustible matter, which is thrown on various occasions, when men come into close action. The consequences of its explosion are sometimes fatal, and always dangerous.

Pot à feu, Fr. an iron pot in which pitch or tar is melted.

Pot d'une fusille volante, Fr. the case of a fusil.

Pot à aigrette, Fr. an artificial firework, the centre of which contains a certain quantity of powder, which, upon being inflamed, communicates itself to several other branches, and exhibits the appearance of an aigrette, or cluster of rays, such as issue from diamonds arranged in a particular manner. The aigrette takes its name from a bird so called, whose feathers serve to make up an ornament for the head.

Pot en tete, Fr. a headpiece made of iron, which is proof against musquet shot. This headpiece is sometimes placed in the crown of the hat, and is otherwise used by soldiers.

POTEAU, Fr. a stake, post.

POTEE, Fr. Putty.

POTENCE, Fr. Troops are ranged en potence by breaking a straight line, and throwing a certain proportion of it, either forward or backward, from the right or left, according to circumstances, for the purpose of securing that line. An army may be posted en potence by means of a village, a river, or a wood. The derivation of the word may be variously explained, viz. from Potence, a gibbet. Potence, crutches or supports. Potence likewise means a piece of wood which is thrown across two uprights; also a cross table, as table en potence; and a measure to ascertain the height of a horse or man.

POTENTAT, Fr. See Potentate. Potentate, a sovereign prince, whose power is rendered formidable by the various means of authority which are vested in him.

POTERNE, Fr. a postern gate, a small port.

Poterne, Fr. Likewise signifies a secret gate. Gates of this description are made behind the orifolos at the extremities of the curtain, in the angle of the flank, and in the middle of those curricans where there are no gates. The sewers generally run under the poternes. Belidor, in his Art of Engineering, recommends small arched magazines to be constructed on the right and left of the paths that lead to these gates.

POUCH, a case of black stout leather with a flap over it, worn by the infantry for the purpose of carrying their ammuni-

tion. The pouches in use among the cavalry are smaller.

Pouc'flap, the outside covering of the pouch. It is made of the stoutest blackened leather and ought always to be substantial enough to turn the severest weather.

POUCE, Fr. An inch.

POUDRE, Fr. See Gunpowder.

Powder horn, powder scabbard, Fr. A species of gunpowder which makes a greater noise than the common sort.

Powder à gros grains, Fr. Gunpowder which is used for artillery pieces. It is likewise called Poudre à Canon.

Powder à musquet, Fr. Gunpowder used for musquets, and other small arms.

POUDE, Fr. a gunpowder maker. It also signifies an hour glass.

POUDE, Fr. a word used among the blacks to describe the explosion of firearms.

POUERIN, Fr. Pound gunpowder.

POULIE, Fr. A pulley.

A POUND sterling, a money in account, value 20s. in England, marked £.

POUNDADE, a rate which is allowed for collecting money. Army agents, &c. are entitled to poudnage, which consists in a certain deduction from the pay of officers, non-commissioned officers, and soldiers. Agents are not allowed any poudnage on the pay of the privates in the militia.

POUNDER, a great gun or piece of ordnance, denominated according to the weight of the ball it carries, as a 6, 12, 24 pounder.

POWDER Horn, a horn flask, in which powder is kept for priming guns. Light infantry and light infantry have frequently a powder horn for carrying spare powder.

POURIE, Ind. a wooden sandal which is used in India during the wet season.

POURSUIT, Fr. Pursuit.
POURSUIVANTS d’armes, Fr. See PURSUANTS AT ARMS.

POURSUIVRE, Fr. to pursue.

POURSUIVRE l’île dans les réins, Fr. To pursue with unrelenting activity.

POURTOU, Fr. in architecture, the circumference of any place.

POURVOIR, Fr. to provide, to lay in stock.

POURVEYEURS des vivres, Fr. Purveyors.

POUSSER, Fr. to push, to press upon, to drive before you, viz. Pousser aux ennemis; to advance rapidly against the enemy. This expression is used in a figurative sense, and relates chiefly to the operations of cavalry.

Pour un cheval, Fr. To make a horse go full speed.

POUSSER, Fr. the dust which remains from the formation of gunpowder into grains.

POUVR, Fr. a beam.

POULTRY, Fr. a small beam.

POWDER. See GUNPOWDER.

Powder magazine, a bomb-proof arch­ed building to hold the powder in fortified places, &c. containing several rows of barrels laid one over another. See MAG­NAE.

POWDER-cart, a two wheeled carriage, covered with an angular roof of boards. To prevent the powder from getting damp, a closed canvas is put over the roof; and on each side are lockers to hold shot, in proportion to the quantity of powder, which is generally four barrels.

Powder-mills, a building in which the materials are beat, mixed together, and finally made into grains. A small beam.

Powder-walls, a building in which the powder is stored, and loaded: then the surgeons are entitled to receive a certain sum of money, which is stopped out of the pay of their venereal patients, for extraordinary trouble and attendance. In the army of the U. States the soldiers are treated in this as in all other diseases. The soldier should be liable to stoppay, every officer of a company, who has the welfare of his soldiers at heart, should examine them at the weekly inspections, as the disorder generally manifests itself, particularly in its first stages, in stains upon the shirt.

PRACTICAL. A word frequently used in military matters to express the possible accomplishment of any object. Hence, *a practicable breach.*

PRACTICE, or gun-practice. In the spring, as soon as the weather permits, the exercise of the great guns begins, for the purpose of shewing the gentlemen cadets at the British military academy at Woolwich, and the private men, the manner of laying, loading, pointing, and firing the guns. Sometimes instruments are used to find the centre line, or two points, one at the breech, the other at the muzzle, which are marked with chalk, and where the piece is directed to the target; then a quadrant is put into the mouth, to give the gun the required elevation, which at first is guessed at, according to the distance the target is from the piece. When the piece has been fired, it is spung to clear it from any dust or sparks of fire, that may remain in the bore, and loaded; then the centre line is found, as before; and if the shot went too high or too low, to the right or to the left, the elevation and trail are altered accordingly. This practice continues morning and evening for about six weeks, more or less, according as there is a greater or less number of recruits. In the mean time others are shown the motions of quick firing with field-pieces.

There is no practice in the army of the U. States, in which there are officers of ten or twelve years standing who never saw
a mortar loaded; but this is the effect of a total want of system.

Mortar Practice, generally thus: a line of 1500 or 2000 yards is measured in an open spot of ground, from the place where the mortars stand, and a flag fixed at about 300 or 500 yards: this being done, the ground where the mortars are to be placed is prepared and leveled with sand, so that they may lie at an elevation of 45 degrees, and be at an equal distance of 300 or 500 yards: this being done, the fuzes of a just length, that the shot will go through the manual and platoon exercises, or through the various manoeuvres, &c., for the purpose of becoming thoroughly master of military movements. Practice is likewise used, in imitation of the French, to signify the act of effecting or executing any military operation, viz. to practice a move beneath the covert way, &c.

Practice, r. See Book.

To Practice. In a military sense, to go through the manual and platoon exercises, or through the various manoeuvres, &c., for the purpose of becoming thoroughly master of military movements. Practice is likewise used, in imitation of the French, to signify the act of effecting or executing any military operation, viz. to practice a move beneath the covert way, &c.

Frame, Fr. A sort of boat or barge which is used on the canals in France.

Frame, in military history, a kind of floating battery, being a flat-bottomed vessel, which draws little water, mounts several guns, and is very useful in covering the disembarkation of troops. They are generally made use of in transporting the troops over the lakes in America. These vessels are well calculated for the defence of large havens and seaports. Brissot, in his Elements de fortification, page 937, strongly recommends the use of frames in cases of inundation, &c. See the improvements proposed by him in page 315, where he speaks of "bateaux indiscrets,"

Di Pratica, Ital. Free intercourse; admitted to practice. Persons who, having performed qualification, are permitted to land in Italy, and mix with the inhabitants.

Practicable, Fr. See Practicable. This word is in general use among the French, viz. "les chemins ne sont pas practicable," and afterwards.

Practice, see Practicable. The roads are not practicable.

Lege d'act 1r Practicable dans ce moment ci. The river is not fordable at this moment; verbatim, the ford is not practicable at this moment.

Practice, Fr. Practice. The term likewise signifies, among the French, commerce, intercourse, traffic, &c.

Accro Pratique avec des insulaires, Fr. To trade, or have intercourse with the inhabitants of islands.

Une Pratique achevée, Fr. A project undertaken and put into execution upon solid principles.

Une Pratique, angl. A plan to digest, and executed without discernment or ability.

Pratique, Fr. In the plural, this term signifies the same as mal-practices, or secret intelligence with an enemy, viz. Ententer des Pratiques avec le commandant d'une place. To hold communication, or keep up a secret correspondence with the commandant of a fortified place.

Pratique des intelligences, Fr. To collect, to gather useful information.

Il avait Pratique dans cette place des intelligences qui lui ont donné le moyen de la surprendre, Fr. He had gathered such information, by holding secret intelligence with the inhabitants, as to be able to surprise the place.

Pratiques, Fr. In architecture, to conceive, to make, to render convenient.

Donner Pratique à un vaisseau, Fr. To allow a vessel to enter into port and unload. This expression is used in the Mediterranean under circumstances of quarantine, and comes from Pratique.

Pratiques, Fr. To practice. Pratiquer une bonne, to try a man; to put his abilities to the test. It likewise signifies to gain over, to suborn.

Precedence. Priority. Priority in rank or precedence in military life, arises from rank or the date of an officer's commission.

Precedent. Any act which can be interpreted into an example for future times, is called a precedent. Persons in high official situations are extremely scrupulous with respect to precedence, especially in military matters.

Precipiter, Fr. To precipitate; to urge or hasten on; to do every thing prematurely. This word appears to be used by the French in almost the same sense as our word which comes to which we attach it, especially in military matters.

Precipiter se retirer, Fr. Literally signifies, to precipitate one's retreat. It may be taken in a good or bad sense, to signify the act of flying away blindly or rashly, without care or discretion; or of urging your retreat under circumstances of imperious necessity, yet with proper caution and foresight. So that to precipitate, both in French and English, signifies, Faire un promptement ou trop promptement; to do anything very promptly, or too promptly.

Precision, exact limitation, scrupulous observance of certain given rules.

Precision of march. On the leading platoon officer of the column, much of the precision of march depends; he must lead at an equal, steady pace; he must lead on two objects either given to him,
or which he himself takes up on every alteration of position: this demands his utmost attention; nor must he allow it to be diverted by looking at his pateon, the care of whose regularity depends on the other officers and non-commissioned officers, belonging to it. The second platoon officer must also be shown, and be made acquainted with the points on which the first leads; he is always to keep the first officer and those points in a line, and those two officers, together with the guide mounted officers, thus becomes a direction to the other pivot officers to cover. In marching in open column, the covering sergeants or guides are placed behind the second file from the pivot officers, that the officers may more correctly see and cover each other in column.

PREDALE, or PREDAR, a war carried.

PREJUDICE, PREJUCE, Fr. Pre-estimation, judgment formed beforehand, without examination. A celebrated French writer calls it an opinion taken up without judgment, Le préjugé est une opinion prise sans jugement. Preliminary is used in two instances, viz. for and against a person.

PRELIMINARY, (Preliminaria, Fr.) Previous, introductory, &c. Preliminary, as a substantive, signifies an introductory measure, a previous arrangement. Hence the "preliminaries of peace."

PRENDRE, Fr. A French military term. It is variously used, and accorded generally with our word to take, viz.

PRENDRE une ville d'assaut; par famine, &c. To take towns by assault; by famine, &c.

PRENDRE à droite, ou à gauche, Fr. To go to the right or left.

PRENDRE à travers, Fr. To run across.

PRENDRE les devants, Fr. To anticipate, to get the start of any body.

PRENDRE le pas, Fr. To take precedence for the other pivot officers to cover.

PRENDRE la droite, Fr. To take the right.

PRENDRE terre, Fr. Toland.

PRENDRE le large, Fr. A term used figuratively to signify the act of running away.

PRENDRE les étendres, Fr. Literally, to take the key of the country, or to run over it.

PRENDRE son élan, Fr. To dart forward.

PRENDRE un rat, Fr. A figurative expression used among the French when a musquet or pistol misses fire, Il voulut tirer, mais son pistolet pris qu'un rat. Literally, he would have fired, but his pistol only caught a rat.

PRENDRE la langue, Fr. To speak in execution a thing.

PRENDRE du temps, Fr. To seek for information, to obtain intelligence.

PRENDRE son temps, Fr. To do a thing with perfect convenience to one's self.

PRENDRE la parole, Fr. To speak first.

PRENDRE sa recançhe, Fr. To make up for any past loss or disadvantage. We familiarly say, to take one's revenge.

PRENDRE à part, Fr. An expression peculiar to the French, in judicial matters, which signifies to attack a judge, for having prevaricated and taken the part of one side against another, without any regard to justice. It likewise means to impune misconduct or criminality, and to make a person responsible for it.

PRENDRE de vin, Fr. To get drunk.

Excess of drinking was so little known among the French officers and soldiers, that the greatest disgust was affixed to the habit. It is recorded, that when Marshal Richelieu had determined to storm a place in the Mediterranean, he gave out the following order—"any soldier who shall appear the least intoxicated, shall be excluded from the honor and glory of having prevaricated and taken the part of one side against another, without any regard to justice. It likewise means to impune misconduct or criminality, and to make a person responsible for it."
peculiarly applicable to a ship that has taken a prize.

PREPARATIFS de guerre. Fr. War preparations. A French writer, under this article, very judiciously observes, that the necessary arrangements which must be made before an army takes the field, and sometimes before an open declaration of war takes place, ought to be managed with extreme caution and great secrecy; although it is impossible to prevent the neighboring powers from being totally ignorant of what is going forward.

It is recorded that Henry the IVth of France, having conceived a vast military project, kept it a profound secret for several years, and made the necessary preparations with extreme caution, before he put it into execution.

When Louis the XVIth resolved to invade Italy, in 1663, he dispatched commissioners, purveyors, &c. the preceding year, under various pretense, to buy up corn, to secure forage for his cavalry, and to provide every thing that might be wanted in the train of artillery; and in 1667, when he formed the plan of entering Belgium in person, he arranged all matters relative to the interior government of France during his absence, examined into the state of the finances, &c. the preceding measures, and sometimes before an open declaration of war takes place, ought to be managed with extreme caution and great secrecy; although it is impossible to prevent the neighboring powers from being totally ignorant of what is going forward.

There is a very remarkable instance of that species of presence of mind which gives a sudden turn to public opinion, and, in the manner. When a dangerous army broke out among the Roman legions, on a proposed expedition against the Germans, Caesar suddenly exclaimed, "Let the whole army return, ignominiously home if it think proper, the tenth legion and myself will remain and contest for the republic." Having, as Plutarch observes, excited his troops to fresh zeal, he led them against the Germans; and being informed that the enemy had been warned by their soothsayers not to engage before the next moon, he took an immediate occasion to force them to battle, in which as it was not expected, somewhat shook the firmness of his troops. For, as Plutarch states, out of 60,000 soldiers, not above 500 survived the battle. The instances of presence of mind in modern wars are numerous, for several see Memoirs of Napoleon's first campaign: and several subsequent occasions.

Ex PRESENT. Fr. In sight.

All PRESENT. A term used when an officer takes his sergeant's report, and makes the necessary inquiry respecting the state of his troops or company.

To PRESENT, PRESENTER. Jr. This word is used in various senses. Those which are more immediately applicable to military usage are as follow:

To PRESENT. To offer openly.
To give in ceremony; as to present the colors.

To present arms. To bring the firelock to a certain prescribed position, for the purpose of paying a military compliment. See Manual.

Presenter les armes, Fr. To present arms, to bring the firelock to any position that may be reserved in military exercise. In the firing it signifies make ready, viz. present arms, make ready; fire; aim; fire. In the manual and other exercises of the piece, it corresponds with our term.

Presenter la bâtonnette, Fr. To charge bayonet.

President. The seat of government so distinguished in India. There are four presidencies, viz. Bombay, Calcutta, Fort St. David, and Madras.

President of the United States.

President of the old congress.

President of a general or regimental court martial. The officer, oldest in rank, who sits in conjunction with other officers, for the trial of military offences is so called. The court, consisting of an odd number of members, when their opinions are equal, the president has the casting vote.

Presidential, relating to a garrison or fortress.

Press-money, money given to the soldier, or called by various names, for the entrance into the American army, is a voluntary act, it is more properly called bounty or enlistment money.

Prestation de serment, Fr. The taking oath.

Pret, Fr. The subsistence or daily pay which is given to solders. The French say,

Payer le Pret. To pay subsistence.

Recevoir le Pret. To receive subsistence.

Toucher le Pret. To touch subsistence or daily pay.

Prétender, one who pretends to any thing whether it be his own or the property of another.

Prêtre, Fr. In military tactics, to expose, as Prêter son flanc à l'ennemi. To expose one's flank to the enemy; to march in so unguarded a manner, or to take up one's ground in so disadvantageous a way as to stand in continual danger of being outflanked.

The French likewise say, figuratively,

Prêter un flanc. To put one's self in the power of another.

Prêtre, Prêtre du premier, Fr. Among the Romans, the governor of a province, who had the office of prætor, or chief minister of justice in ancient Rome. The provinces so governed were called prætorian.

Prêtorian, (Prêtrien, see, Fr.) appertaining to prætor, as Prætorian Band, the general's guard among the ancient Romans.

Prætorium, (Præturiu, Fr.) The hall or court wherein the prætor lived and administered justice. It also denoted the tent of the Roman general, in which the councils of war were held. The place where the prætorian guards were quartered or lodged, was likewise called præturiu.

Prevarication. According to the laws of England is, where a lawyer pleads booty, or acts by collusion, &c. It also denotes a secret abuse committed in the exercise of a public office, or of a commission given by a private person. The word is unknown in military phraseology, and is only explained in this place to stand as a land mark to the open ingenuous character of a soldier.

Prevost, Fr. Provost.

Prevost d'une arme, Fr. Provost, marshal belonging to an army.

Prices of commissions. See Regulations.

Pricker. A light horseman was formerly so called.

To prick out. An expression used among engineers, &c. signifying to mark out the ground where a camp, &c. is to be formed.

To prick out the line of circumsallation. This is done by the chief engineer and chauff of the staff, whenever an army encloses itself before a town, &c. to ascertain the possession of any given lot of ground, and begins to hut.

Pricking. Among marines, to make a point on the plan or chart, near about where the ship then is, or is to be at such a time, in order to find the course they are to steer.

Prêtre, Fr. See Fortification and Bouquet.

Prime, a word of command used in the platoon exercise. See Manual.

Prime and lead, a word of command used in the exercise of a battalion, company, or squad. See Manual.

Prime parade, in fencing, is formed by dropping the point of your sword to the right, bending your elbow, and drawing the back of your sword hand to within a foot of your forehead, in a line with your left temple, so that your blade shall carry the thrust of your antagonist clear of the inside or left of your position.

Prime thrust, a thrust applicable after forming the above parade, and delivered at the inside of the antagonist. To obtain an opening for this thrust, it is necessary to step out of the line to the right as you parry, or else to oppose the sword of your antagonist with your left hand. The first method is most eligible.

Prime Hanging Guard, with the broadsword, a position in which the hand is brought somewhat to the left, in order to secure that side of the face and body. See Broadsword.

Priming, in Gunnery, the train of powder that is laid, from the opening of the vent, along the gutter or channel, on
the upper part of the breech of the gun, which, when fired, conveys the flame to the vent, by which it is further communicated to the charge, in order to discharge the piece. This operation is only used on ship-board, at the proof, and sometimes in garrison; for on all other occasions, tubes are used for that purpose.

**Priming-cave**, a small tin case, about the size and shape of a cartridge, for the purpose of keeping a certain quantity of gunpowder, for priming, constantly ready. This rational and economical invention, should be universally adopted.

**Priming-plate,** in gunnery, a sort of iron needle employed to penetrate the vent or touch-hole of a piece of ordnance, when it is loaded, in order to discover whether the powder contained therein is thoroughly dry, and fit for immediate service; likewise to search the vent and penetrate the cartridge, when the guns are not loaded with loose powder.

**Primipilares;** among the Romans, such as had formerly borne the office of primipilus of a legion. The banner was entrusted to his care. Among other privi- leges which the primipilus enjoyed, they became heirs to what little property was left by the soldiers who died on campaign.

**Primipilare, Fr. See Primipilares.**

**Primipulus, the centurion belonging to the first cohort of a legion.** He had charge of the Roman eagle.

**Primitives, Fr.** Primitive colors are distinguished by the term among the French. They are, the yellow, the red, and the blue; white and black being the extremes.

**Principes, (Princes, Fr.) Roman soldiers.** They consisted of the strongest and most active men in the infantry, and were armed like the Hastati, with this difference, that the former had half-pikes instead of whole ones.

**Principe, according to the schools, is that from which any thing is done or known.**

**Principles** also denotes the foundations of arts and sciences.

**Military Principles, the basis of which, every military movement is made, and by which every operation is conducted.**

**Prise, Fr.** This word is variously used by the French, in a figurative and proverbial sense. C'est autant de prise sur l'ennemi. An expression signifying that some advantage, at least, has been gained.

**Une ville prise, Fr.** A town which has been taken.

**Prise des dehors d'une place, Fr.** The taking possession of an enemy's outworks.

**Prises, Fr. Prizes.**

**Prises sur prisonniers, Fr.** Every thing taken from the enemy is so called.

**Prisonniers de guerre, Fr. prisoners of war.**

**Prisoniers of war,** those of the enemy who are taken in or after a battle.

**Privilege, is any kind of right or advantage which is attached to a person or employment exclusive of others.**

**Privileges.** Among the different privileges which prevail in the British army, the life guards receive their promotions direct from the king, without passing through the commander in chief as all other corps do. The appointment of colonel in the life guards gives the honorary title of field stick, and the field officer of the day is the silver stick, through whom all reports, &c. are conveyed to the king.

Although there is a lieutenant general of the London district, the foot guards have the privilege of reporting to head quarters direct. The foot guards enjoy the privilege of ranking, from the ensign, one step higher than the line. A lieutenant, for instance, ranks as captain, and can purchase as such into any marching regiment without having waited the regulated period; and a captain, having the brevet rank of lieutenant colonel, may lap over all the majors of the line, by getting appointed to a marching regiment. The promotions of the guards, among themselves, are, however, extremely slow; and the only indemnification they have must be at the distance of time. This preposterous pre-eminence which is not founded on any military principles or personal merit, has tended to destroy military emulation in England; and will every where when merit only is not the criterion of honor and promotion.

**Privileges des régiment, Fr.** Certain privileges attached to regiments, which are always abused, when not the reward of distinguished merit.

**Privy Council, a council of state held by a king, with his counsellors, to concert matters for the public service; also called the cabinet.**

**Prix des emplois ou charges militaires, Fr.** The price of commissions, or military employments. During the monarchy of France, a company in the French guards sold for 80,000 livres.

A company in the six first regiments of infantry, went for 75,500 livres. The six following, exclusive of the regiment du roi, went for 55,000 livres. One in the regiment of Poitou, and as far down as the Penthievre, 40,000 livres; in the Pen-
The troops or companies in cavalry regiments, in the royal corps, and in the civil magistrates, are entitled to prize-money as nurses. Constructed on a scale of 30 feet to an inch, the profile of a building, fortification, they are such bodies as being put in motion by any great force, are then cast off, or let go from the place where they received their quantity of motion; as a shell or shot from a piece of artillery, a stone thrown from a sling, or an arrow from a bow, &c. This line is commonly taken for a parabola, and the range is computed from the properties of the curves. The assumption would be just, in case the ball, in its motion, met with no resistance: but, the resistance of the air to such motions being very great, the curve described by the shot is neither a parabola, nor nearly so; and by reason of the resistance, the angle which gives the greatest amplitude is not 45 degrees, as commonly supposed, but something less, probably 43 1-2. Hence the subline mathematica

**PROCLAMATION.** An instrument which is published by the constituted authority of government, whereby the country at large is informed of something, and whereby the people are sometimes required to do, or not to do certain things. A proclamation has all the efficacy of law, because it must be in concord with or founded upon the law already in being.

**PROCLAMATION OF PEACE,** a declaration of the cessation of war.

**PROCONSUL,** a magistrate who was sent to govern a province with consular authority.

**PRODICT,** to proclaim peace.
are absolutely necessary in the investigation of the track of a shell or shot in the air, known by the name of military projectile.

Gallileo having discovered that bodies projected in vacuo, and in an oblique direction to the horizon, do always describe a parabola, he concluded that this doctrine was not sufficient to determine the real motion of a military projectile; for, since shells and shot move with a great velocity, the resistance of the air becomes so great with respect to the weight of the projectile, that its effect turns the body very considerably from the parabolic tract; so that all calculations, grounded on the nature of this curve, are of little use on these occasions. This is not to be wondered at, since Gallileo, in his enquiries paid no regard to any other force acting on bodies, than the force of gravity only, without considering the resistance of the air.

Every body, moving in a fluid, suffers the action of two forces: the one is the force of gravity, or the weight of the body; and it is to be observed, that this weight is less than the natural weight of the body, that being diminished by an equal bulk of the fluid in which the body moves. The other force is that of the resistance, which is known to be proportional to the squares of the velocity of the body; and when the body is a globe, as is commonly supposed, the direction of this force is diametrically opposite to that of the motion of the body. This force changes continually, both in quantity and direction; but the first force remains constantly the same. Hence, the point in question is, to determine the curve which a body projected obliquely, must describe when acted upon by the two forces just now mentioned.

Although this question is easily reduced to a problem purely analytical, the great Newton, notwithstanding his ingenious endeavors, did not arrive at a complete solution of it. He was the first who attempted it, and having succeeded so well in the supposition, that the resistance is proportional to the velocity, it is almost inconceivable that he did not succeed, when the resistance is supposed proportional to the squares of the velocity, after solving a number of questions incomparably more difficult. The late Mr. John Bernoulli gave the first solution of this problem, from which he drew conclusions, by means of the quadratures of some transcendent curves, whose description is not very difficult.

This great problem was, therefore, very well solved long ago; yet the solution, however good in theory, is such as has hitherto been of no real advantage towards improving the art of gunnery: it has only served to convince the student in that art, of the error of his principles, drawn from the nature of the parabola, although he is still to abide by them. It is indeed something to know, that the common rules are erroneous; but unless we know how much they err, in any case, the advantage is very little.

One may think it a work of infinite labor to establish rules for the flight of cannon shot, applicable to the real curve which a body describes in the air; for although, according to the hypothesis of Gallileo, we want only the elevation of the piece, and the initial velocity, and it is therefore not difficult to calculate tables to show the greatest height of the projectile, and the point where it must fall in any proposed case; yet in order to calculate similar tables according to the true hypothesis, care must be taken besides the two particulars already mentioned, to have respect as well to the diameter of the projectile as to its weight; therefore the practitioner will be reduced to the necessity of calculating tables, as well for the diameter of each projectile, as for its weight; and the execution of such a work would be almost impracticable. We therefore refer the curious to Mr. Euler's True Principles of Gunnery, translated, with many necessary explanations and remarks, by the very learned and ingenious Hugh Brown.

PROJECTION, [Projection, Fr.] in mathematics, the action of giving a projectile its motion. It is also used to signify a scheme, plan, or delineation.

PROJECT, Fr. a term generally used among French engineers, to express what works are required to be made for the inward or outward defence of a fortified town or place. It likewise signifies, in diplomacy, a plan or statement of terms and conditions which one country makes to another for a final adjustment of differences.

Contre-Project, Fr. a receipt or answer to terms proposed, accompanied by a project from the other side.

Prolonge, Fr. A long thick rope, which is used to drag artillery; but different from the bridle and drag rope; it is coiled round pins under the gun carriage travelling, it is hoosed in action, and one end being attached to the limber, is of great use in moving the gun in action or in a retreat. See Au. Mil. Lib.

Promotion, (Promotion, Fr.) This word signifies, in military matters, the elevation of an individual to some appointment of greater rank and trust than the one he holds.

Promouvoir, Fr. to promote.

Promu, Fr. promoted.

Proof, in arithmetic, an operation whereby the truth and justice of a calculation is examined and ascertained.

Proof of artillery and small arms is a trial whether they will stand the quantity of powder allotted for that purpose.
The British government allow 11 bullets of lead in the pound for the proof of muskets, and 29 in two pounds for service; 17 in the pound for the proof of carbines, and 20 for service; 28 in the pound for the proof of pistols, and 32 for service.

When guns of a new metal, or of lighter construction, are proved, then besides the common proof, they are fired 2 or 300 times, as quick as they can be, loaded with the common charge given in actual service. British light 6 pounders were fired 300 times in three hours, 27 minutes, loaded with 1 lb. 4 oz. without receiving any damage.

Proof of ordnance. All natures of ordnance undergo several kinds of proof before they are received into the British service; viz. 1st, they are gauged as to their several dimensions, internal and external; as to the justness of the position of the bore, the chamber, the vent, the internal and external dimensions of the position of the bore, the chamber, the vent, the trunmion, &c.

2d. They are fired with a regulated charge of powder and shot, and afterwards searched to discover irregularities or holes produced by the firing.

3d. By means of engines an endeavor is made to force water through them; and,

4th. They are examined internally, by means of light reflected from a mirror.

Iron guns. The guns are first examined as to their proper dimensions, in which, in no case more than 3-10 of an inch variation is allowed; and in the diameter of the bore only 1-30 from 42 to 18 pounders, and 1-40 from 22 to 4 pounders; but in the position of the bore 1-5 of an inch out of the axis of a piece from a 42 to an 18 pounder, and 1-3 of an inch from a 12 to a 4 pounder is allowed. They are then fired twice with the charge in the following table, with one shot and two high junk wads; and examined with a searcher after each round. In this examination they must not have any hole or cavity in the bore of 2-10 of an inch in depth, behind the first reinforce ring, or 1-4 of an inch in depth before this ring.

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<th>Nature</th>
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Iron guns are scaled with 1-12 the weight of the shot.

Brass guns. From 1 pounders to 12 pounders the diameter of the bore must not vary more than 1-40 of an inch, and in no dimensions more than 2-10. The following are the established charges for their proof.

The heavy and medium guns with a charge equal to the weight of the shot, except the medium 12 pounder, which is proved with only 9 lbs. The light guns with half the weight of the shot. The brass ordnance have not however been proved of late with such heavy charges, but with the following:

3 lbs. light, 3 times, with 1 lb. each round.
6 lbs. light, 3 times, with 2 lbs. each.
12 lbs. light, 3 times, with 6 lbs. each.
12 lbs. med 2 times, with 5 lbs. each.
Any hole 15 of an inch deep upwards or sideways in the bore, or 1 in the bottom of the bore, before the first reinforce ring, will be sufficient to condemn them.

Brass Mortars and Howitzers. The exterior dimensions are in no respect to deviate more than 1-10 of an inch in an 8 inch howitzer, and 1-20 in the Cohorn mortars and howitzers. Their b-res and chambers not to deviate from their true diameters or positions more than 1-40 of an inch.

The brass mortars and howitzers are fired twice with their chambers full of powder, and an iron shell. The mortars on their own beds, at about 75 degrees elevation; and the howitzers on their carriages, at about 12 degrees. Iron mortars are proved on their iron beds, with a charge equal to the full chamber, and an iron shot equal in diameter to the shell.

Cohorn mortars, having a hole 1 of an inch in depth in the chamber, or 1-5 in the chase, are rejected: royal howitzers the same. 8 inch howitzers having a hole 1-5 of an inch in depth in the chamber, or 3 in the chase, will be rejected.

Carronets. The diameter and position of their bore and chamber must not deviate 1-20 of an inch. They are proved with 190 rounds, with their chambers full of powder and 1 shot and 1 wad. A hole of 2-20 of an inch in depth in the bore, or 1-10 in the chamber 6 inches across the piece.

Proof Charges.

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All ordnance, after having undergone this proof, and the subsequent searching, are subject to the water proof: this is done by means of a forcing pump, having a pipe or hose fixed to the mouth of the piece; after two or three efforts to force the water through any honeycombs or flaws which may be in the bore, they are left to dry; and generally the next day examined by the reflected light from a mirror. If the bore contain any small holes or flaws which have not been discovered by these former proofs, they are very readily found by this; the water will continue to weep, or run from the holes, when the solid parts of
the bore are perfectly dry. Ordnance suspected of being bad are often subject to a proof of force, that of firing 30 rounds quick, with the service charge and a shot; and in doubtful cases, where the purity of the metal is suspected, recourse has been had to chemical trials and analysis. A quantity of clean filings taken from a part of an iron gun free from rust, are dissolved in diluted sulphuric acid, and the quantity of gas disengaged during the solution accurately ascertained. The plumago, which remains after solution is also separated by filtration, and carefully weighed. Now it is well known that the purer the iron, the greater the quantity of inflammable gas obtained, and the less the proportion of plumago which remains after the solution; from these two parts therefore a tolerable judgment may be formed of the quality of the metal. When the plumago exceeds 4 1-2 per cent., the iron will always be found deficient in strength; and there has been no instance of a gun bursting where the plumago did not exceed 3 per cent.; that is, where 100 grains of the metal did not leave more than 3 grains of plumago. The color of the plumago is also to be attended to; when it is brown or reddish, it is an indication of hard metal, and when in quantities and mixed with coals, there can be no doubt but that the iron is too soft for cannon.

Proof of Iron Shells. After the shells are gaged and examined as to their dimensions and weight, they must be well scraped out, and the iron pin at the bottom of the inside must be driven down or broken off. They are then to be hammer ed all over, to knock off the scales, and discover flaws, and no hole, in the large shells is allowed, of more than 3-4 of an inch deep. An empty fuze is then driven into the fuze hole, and the shell is suspended in a tub of water, in such manner that the shell be covered by the water, but that it does not run into the fuze; in this situation the nose of a pair of bellows is put in at the fuze hole, and several strong pulls given with the bellows; and if no bubbles rise in the water, the shell is concluded to be serviceable.

Ordnance condemned as unserviceable for any of the foregoing reasons, are marked as follows: X, D, or X S, or X W. The first signifies that they are found to be faulty in their dimensions, by Desaguliers's instrument; the second, by the searcher; and the third, by the water proof.

Proof of powder, is in order to try its goodness and strength. There have been different inventions proposed and put in practice heretofore, for the proof of powder. See Gunpowder and Expls. The mirror is generally the only instrument for finding the principal defects in pieces of artillery, has been invented by lieutenant general Desaguliers, of the royal regiment of artillery. This instrument, grounded on the truest mechanical principles, is no sooner introduced into the hollow cylinder of the gun, than it discovers its defects, and more particularly that of the piece not being truly bored, which is a very important one, and to which most of the disasters happening to pieces of artillery, are in great measure to be imputed; for, when a gun is not properly bored, the most expert artillerist will not be able to make a good shot.

Proofs of mortars and howitzers, is made to ascertain their being well cast, and of strength to resist the effort of their charge. For this purpose, the mortar or howitzer is placed upon the ground, with some part of their trunnions or breech sunk below the surface, and resting on wooden billets, at an elevation of about 70 degrees.

The mirror is generally the only instrument to discover the defects in mortars and howitzers. In order to prove it, the sun must shine; the breech must be placed towards the sun, and the glass offer against the mouth of the piece; it illuminates the bore and chamber sufficiently to discover the flaws in it.

Proof armor, armor hardened to an
PROSECUTE, to carry on. Hence to prosecute the war.

PROSPECTIVE, appertaining to viewing.

PROSTYLE, any building having pillars in the front only.

PROCTOR, this word sometimes denotes the regent of a kingdom. Oliver Cromwell assumed this title on the death of Charles I. of England; Bonaparte exercises the power of emperor over a great part of Germany, under the title of Protector of the Confederation of the Rhine.

PROTESTANT, an appellation first given in Germany to all who adhered to the doctrine published by Luther.

PROVIDOR, (Providitor, Fr.) The Venetians had two appointments of this description before the revolution. One gave the supreme command of the armies on shore, the other that of the fleets.

PROVET, an artillery machine used with howitzers. See EPROYVETTE.

PROVISIONS, are properly these articles of food and sustenance which soldiers receive from the public, and which in the British service are paid for by deductions from their pay. There is taken a deduction of three pence a day from the full pay of every sergeant, corporal, trumpeter, drummer, fifer, private man of the life guards, horse guards, dragoon guards, dragoons, foot guards, infantry of the line, militia, fusilier infantry, and companies of invalids, when serving out of Great Britain, on stations at which provisions are supplied by the public; also when embarked in transports, or other vessels; except while serving as marines, or during their passage to and from India at the expense of the East-India company; also when prisoners of war, and maintained at the expense of Great Britain; and likewise when in general hospitals, either at home or abroad.

A deduction of three pence halfpenny is likewise to be made from the full pay of each sergeant, &c., when stationed in Jamaica, in New South Wales, in general hospitals, either at home or abroad.

These deductions commenced, in regard to the troops in Europe, on the 25th of February, 1799; and in regard to the troops abroad, on the 25th of April, 1799.

PROVISIONS. See RATION.

PROVISIONAL, (Provisional, Fr.) Temporarily established.

PROVISIONALLY, (Provisonalement, Fr.) by way of provision, or temporary arrangement. This adverb is frequently used both in French and English to distinguish the exercise of temporary functions from that of permanent appointments.

PROVOST, Marshal, of an army, is an officer appointed to secure deserters, and all other criminals: he is often to go round the army, hinder the soldiers from pillaging, indict offenders, execute the sentence pronounced, and regulate the weights and measures used in the army when in the field. He is attended by a
lieutenant's guard, has a clerk, and an executioner.

PROWESS, valor, bravery in the field, military gallantry.

PELOI, light armed men among the Greeks, who fought with arrows and darts, or stones and slings, but were unfit for close fight. They were in honor and dignity inferior to the heavy armed. Next to these were the pelastani, a middle sort of foot soldiers between the hospital and the peloi, being armed with spears, but far inferior in bigness to those of the heavy armed; their name is taken from their narrow shields, called Pelas. Potter's Greek Antiquities, vol. II, chap. 3.

PUBLICANS, persons who keep ale-houses, &c., for the accommodation of travel-ers. In England, troops upon the march, or in quarters, may be billeted on them.

PUCKA fever, Ind. a putrid fever.

PUCKALLIES, Ind. leathers back for carrying water. They are placed on the backs of oxen. The word is also used for water-carriers.

PULVERAY, pieces of stuff to do the office of levers or handspikes.

PUBLICANS, persons who keep ale-houses, &c., for the accommodation of travel-ers. In England, troops upon the march, or in quarters, may be billeted on them.

PULLIES, a belt, a particular body of men. This word is chiefly used in Russia; a Pull of cossacks.

PULVERIN, Fr. a copper vessel which is used in making saltpetre.

PUITS, Fr. A well.

PUITS de mineur, Fr. a perpendicular opening, about four feet square, which is made in the earth for miners to let themselves down, as deep as may be judged expedient, in order to push the subterraneous galleries beneath the covert wall, or under any other works constructed by the besieged or besieger.

PUL, a tube, a particular body of men. This word is chiefly used in Russia; a Pull of cossacks.

PULVERIN, Fr. priming powder.

PULVIS fulminans, the thundering powder, a mixture of three parts of salt-petre, two or tartar, an equal part of brimstone; all finely powdered. A small part, even a single grain of this being put into a shoe or a gentle fire, will melt by degrees and changes color, will go off or explode as loud as a musquet. But it will not do any injury, because its force tends chiefly downward.

PULLEY, in military mechanism. See Mechanics.

PULVWAR, Ind. a light boat for dispatches.

PUMICE-stone, a spongy, light crumbling stone which is cast out of mount Etna, and other burning mountains. It is used in graving, polishing, &c.
the man who received the lashes. The culprit was, however, generally allowed to make the most of his lats. Whilst he was receiving his punishment, the drummers of the regiment, who were equally divided and stationed behind the drummers of the regiment, who were to make the most of his lats. Whilst the man who received the lashes. The character, he not only underwent this punishment, but he was conducted in the most ignominious manner, to the outward gate of a frontier town; there expelled the country, and cautioned, never to return within its limits under pain of suffering death. The society of military honor and reputation, among French soldiers, is proverbial. They never survive a blow, even among themselves, nor would a private soldier exist under the disgrace of having been struck by an officer.

When a girl of the town, or a notorious prostitute, was taken up, and ordered to be punished in a camp or garrison, she went through the same process; the drums beating the marzainette, a sort of round's march, during the execution of the sentence.

In a letter to a Military Dictionary to the American public, the editor cannot withhold his protest against the barbarous method of whipping, as not only inconsistent with every maxim adapted to military institution, but incompatible with the republican institutions of America, as well as the ancient Rome. The subject to such odious punishment is a fatal blow to the American militia, and one of the greatest obstacles to its respectability and efficiency; since in service the punishments must necessarily be and ought to be uniformly the same. A man who has been once punished by whipping, as practiced in the military service in England, must be totally lost to every sentiment of feeling reconcilable with military spirit, or that sense of honor which can never exist but where there is self-respect. There can be no confidence between officers that fling and men that are flung, and thus the fundamental spirit of all military institution is undermined, that confidence reciprocal and earnest through every grade. It is sometimes said that discipline cannot be enforced without it; all Europe conquered at this moment, by an army in which even blows are not permitted, is an melancholy lesson contrasted with the brutal discipline of the cane and other grossindous practices, in the armies of Prussia, Austria, Russia, and England. Those who cannot enforce discipline without treating their fellow men as brutes, should distrust their own faculties or fitness, and examine into their own false pride, their petulance, perhaps too often their unrespective with the first principle of military discipline, that is the knowledge of mankind, or of the human mind; the springs by which the human character is most easily and effectually led to acts of voluntary heroism and intrepidity, are never produced by the lash, but always to be commanded by generosity, by a kindness that costs nothing, and which if it were to cost something, if one with discrimination, is always repaid ten thousand fold by the affection, the gratitude, the attachment, and the love of the soldier. It is said that there are men who are not to be overcome by generosity, nor subdued even by the lash; then such men should be held up as an example for better men; they should not be suffered to mess, nor to associate with worse men of better temper; the good men should be noticed and those neglected, and if these courses failed, the public service would be benefited by their discharge, more than by their continuance.

The sale and purchase of commissions is countenanced by government, and the prices of those commissions are regulated by authority, yet there are various ways through which young men of fortune and connections get over the heads of veteran officers in the British army. In 1809, the detection of a system of purchase from the concatenations of the British commander in chief excited astonishment.

Purchase and sale are terms unknown in the British navy.

Purse, [with the grand signor] a gift, or gratification of 500 crowns.

Purse of money, [in the Levant] about 15s. sterling. It is so called because all the grand signor's money is kept in leather purses or bags of this value in the seraglio.

Pursevant, from the French pourvant, a sort of serjeant at arms, who is ready to go upon any special message or to carry any special message. His general office is to apprehend a person who has been guilty of an offence.

Pursuit, the act of following with hostile intention.

Purveyor of public supplies, a civil officer whose duty it is to purchase what is required for public service, as military clothing, medicine, equipments; the troops of the United States have for a few years been cared for better than formerly, owing to the scandalous abuse of money in the purveyor; and overlooked in the military department; a few years since, no troops in the world were better provided for.

Purveyor, a person employed in the quarter-master or commissary general's department in the British service. Like-wise one belonging to a military hospital, whose duty it is to provide food and necessaries for the sick.

To push, to make a thrust. To push back, to force an enemy to retreat.
Pussillanimous, cowardly, wani

To put a horse in horsemanship, sig

Putting-stone, a great stone,

Pyke, led, a person employed as a

Pyramid, (Pyramid, Fr.) This word is originally derived from the Greek, and takes its name from a resemblance to the spiral ascendency of fire. It is the same as obelisk.

Geometrical Pyramid, a solid standing on a square basis, and terminating at the top in a point; or a body whose base is a polygon, and whose sides are plain triangles, their several tops meeting together in one point.

Pyramid, (in architecture,) a solid, massy edifice, which from a square, triangular, or other base, arises in gradual dimension to a vertex or point.

Pyramidal numbers, (in arithmetical progression.) The sums of polygonal numbers, collected after the same manner as the polygon numbers themselves are extracted from arithmetical progression.

Pyramidal, pertaining to, like Pyramidal, is to pyramid.

Pyramidal, from the Greek, is what is sometimes called a parabolic spindle, and is a solid figure formed by the revolution of a parabola round its base, or greatest ordinate.

Pyramids, of Egypt, are enormous piles of building, within three leagues of Grand Cairo, and are ranked among the seven wonders of the world.

The pyramids of Giz, the largest of which was originally built by Cheops, are supposed to have been erected about 1500 years ago. The pyramids are known by various names, viz.

Pyramids of Giz, (five in number) which are those already mentioned, and near which the French established a camp in 1799.

Pyramids of Saccara, (three in number.) These stand in the plain of Mummies, and are about 600 feet high.

Pyramids of Embabeh, (six in number,) stand in the same plain, and appear somewhat lower. The French general Friant, in 1799, pursued Murad Bey across this plain, leaving the pyramids on his left.

The Southern, or Great Pyramid. This pyramid has been called by Bruce, the traveller, the false pyramid. It stands in the plain of Mummies, and appears to be about 600 feet high.

Pyramids, in ruins. Two pyramids of smaller size, which stand near the Fiume mountains, close to Joseph's canal.

Battle of the Pyramids, so called from having taken place close to the large pyramids in the plain of Mummies, at Wardam, within a few miles of Grand Cairo. A previous engagement had been fought on the 15th of July, 1799, between the Mamalukes under Murad Bey, and the French army, commanded by Bonaparte in person. The second battle, called the battle of the pyramids, put the French in possession of lower Egypt. The following short extract from the Epitome of Military Events, may not be uninteresting.

"The French army, which during its last marches had suffered excessive fatigue, halted at Wardam, in order to recruit its strength, remove the artillery, and clean the muskets that were so subject to rust from the most exposed of the Nile. On the 21st of July, 1799, the second battle called the battle of the pyramids, was fought. General Desaix, with his advanced guard, at first made a corps of Mamalukes fall back; the order of battle of the other divisions was nearly the same as on the 15th, being drawn up in echelons of square columns, so as to form themselves between each other; and the line of battle, which was itself flanked by two villages. Each division was concentrated into a compact body, and formed a square having its baggage in the centre, and the artillery in the intervals of the battalions. This formidable disposition presented a double fire in flank and in front, and opposed an invincible obstacle to the impetuous, but unconnected charges of Murad Bey's cavalry. To return to the attacked, the 21st, general Desaix's advanced guard, and Regnier's division, formed the right wing of the army, and were first charged with the greatest impetuousity, by one half of the Mamaluke cavalry; the other half having remained to support the intrenchments of the village of Emababe.

"Notwithstanding this determination to anticipate the attack of the French columns, the rash valor of the Mamalukes again failed against those compact bodies, bristling with bayonets, and keeping up, within half musquet shot a most galling fire. While these charges were taking place against his right, and the Mamalukes were retreating in disorder, Bonaparte directing the two divisions of his centre against the intrenchments, ordered the village of Emababe to be turned by means of a ditch which marked this movement, and thus cut to pieces, or rather drove into the Nile, 500 of the enemy's cavalry." In a map lately published by Heath, the number is stated to have been 2000. The attack, which was extremely warm, was conducted by general Marmont. Forty pieces of cannon, the camp of the Mamalukes, their rich spoils, together with upwards of 400 camels, fell into the hands of the cen-
In the year 1801, a large army of Turks, with a detachment of the British forces in Egypt, defeated the French close to the pyramids, and took possession of Grand Cairo. This battle eventually decided the fate of Egypt.

PYROBOLY, the art of gunnery, &c.

PYROBOLOTS, Pyrobolists, a maker of fire-balls, &c. in horsemanship, are motions either of one tread or piste, or of two treads or pistes.

PYROETS, in a military sense, are such pyrotechny, or pyrotechnics, taught to the structure and service, both of those used in war, for the exercising of a civil or military employ. In a general acceptation of the term, to qualify does not mean to give proofs of mental ability.

QUADRANGLE, a square figure having four equal and parallel sides.

QUADRATIC EQUATIONS, are such as retain, on the unknown side, the square of the root, or the number sought.

QUADRATURE, the amount; bulk; weight; that property of any thing which may be increased or diminished.

QUARANTINE, (Quarantaine, Fr.) a company of soldiers drawn up in four rows or ways, meeting in a point.

QUAINT, See QUAT.

QUADREFOURS, in a military sense, are such disagreements between individuals of that serious nature, as to produce challenges, duels, &c. by the Articles of War, it is specified, that all officers, of what condition soever, have power to quell all quarrells, in which an individual stands upon a musket, &c. viz. Le quarantaine, the term of 40 days.
rels, frays, and disorders, though the persons concerned should belong to another regiment, troop, or company, and either to order officers into arrest, or non-commissioned officers or soldiers to prison, until proper superior officers shall be made acquainted therewith; and whoever shall refuse to obey such officer (though of an inferior rank) or shall draw his sword upon him, shall be punished at the discretion of a general court martial.

QUARREL, an arrow with a square QUARRY, &c. head. QUART, fr. Quarter. Quarte de Circé, fr. A quadrant such as bombardiers use when they take the angles, and give what inclination they think necessary to a mortar.

Quarter de Conversion, fr. Quarter-wheeling, or quarter-facing. The terms are used in military evolutions.

Quarter de Conversion, fr. Half-quarter wheel.

QUART, fr. In fencing. See CADE.

QUARTER, in war, signifies the sparing of men's lives, and giving good treatment to a vanquished enemy. Hence, to give quarter, to take quarter, &c. Quarter quarter, fr. prendre quartier, fr.

QUARTER UPON. To oblige persons to receive soldiers, &c. into their dwelling houses, and to provide for them.

QUARTERS. Military stations are so called; as head quarters, home quarters, regimental quarters, &c.

QUARTERS, at a siege, the encampment upon one of the most principal passages round a place besieged, to prevent relief and conveyance.

Head Quarters of an army, the place where the commander in chief has his quarters. The quarters of generals of horse are, if possible, in villages behind the right and left wings; and the generals of foot are often in the same place: but the commander in chief should be near the centre of the army.

Quarters of refreshment, the place or places where troops that have been much harrassed are put to recover themselves, during some part of the campaign.

Quarters of Assembly, the place where the troops meet to march from in a body, and is the same as the place of rendezvous.

Intended Quarters, a place fortified with a ditch and parapet to secure a body of troops.

Winter Quarters, sometimes means the space of time included between leaving the camp and taking the field; but more properly, the place where the troops are quartered during the winter.

The first business, after the army is in winter quarters, is to form the chain of troops to cover the quarters well: which is done either behind a river, under cover of a range of strong posts, or under the protection of fortified towns. Hussars are very useful on this service.

It should be observed, as an irrevocable maxim, in winter quarters, that your regiments be disposed in brigades, to be always under the eye of a general officer; and, if possible, let the regiments be distributed, as to be each under the command of its own chief.

In Quarters. Within the limits prescribed.

Out of Quarters. Beyond the limits prescribed. Officers, non-commissioned officers and soldiers who sleep out of quarters, without leave, are liable to be tried by a general or regimental court martial, according to the rank they actually hold.

Quartermaster, is an officer, whose principal business is to keep after the quarters of the soldiers, their clothing, bread, ammunition, &c. Every regiment of foot, and artillery, has a quartermaster, and every troop of horse one.

Quarter-master-general, is a considerable officer in the British army, and should be a man of great judgment and experience; and well skilled in geography: his duty is to mark the marches, and encampments of an army: he should know the country perfectly well, with its rivers, plains, marshes, woods, mountains, passes, &c. even to the smallest brook. Prior to a march he receives the orders and route from the commanding general, and appoints a place for the quarter-masters of the army to meet him next morning, with whom he marches to the next camp, where after having viewed the ground, he marks out to the regimental quarter-masters the space allowed each regiment for their camp: he appoints a proper place for the encampment of the train of artillery: he conducts foraging parties, as likewise the troops to cover them against assaults, and has a share in regulating the winter quarters and cantonments.

Quarter-staff, an old military weapon, made of strong even wood, bigger and heavier than a pike: it is 6-7 feet long between the ferrules that keep fast the two pikes of iron stuck into the ends of the staff.

Quarter, in the manège, as to work from quarter to quarter, is to ride a horse three times in upon the first of the four lines of a square, then, changing your hand, to ride him three times upon the second; and so to the third and fourth; always changing hands, and observing the same order.

Quarter-facing, is in the new discipline substituted for the old system oblique marching: it is also called the line of sciences: in this, every man turns to the right or left as ordered, and if ordered to march, the lines of ranks thus keep paral-
or the commander in chief resides. When the clouded shield of war is raised, the Art de la Guerre;
of all the troops, is the motion by which the front of a body of men was turned round to a white flank stood, by taking a quarter of a circle; but in the new discipline which reduces all principles to the strictest simplicity, the wheel is a parabolic curve; and for obvious
reasons, since the wheeling of any number of men on a whole circle, would be useless to bring them into the place in which they stood before they were wheeled or moved; now the purpose of wheeling is to change from one position to another required position, and hence quarter wheeling means a quarter wheeling, or half wheeling, or half a circle; thus wheeling about, is changing the front to the rear; and this wheeling is simply half the half circle, re-placing the troops on the same line from which they were moved; the quarter wheel is a movement of a quarter circle or a half circle, or in a line oblique to the line from which they were moved; a regiment quarter wheeled by companies display the regiment in echelon.

Quartering troops, is to provide them with quarters.

QUARTIER-ERON, Fr. A quarter-on; one born of a white man and a mulatto woman, or of a mulatto man and a white woman.

QUARTIER, Fr. For its general acceptation see Quarters.

Quartier d'un Siège, Fr. A station was engaged in one of the leading avenues to a besieging town or place. When the Quarters d'un Siège was commanded by a general officer, during the French monarchy, it was called Quartier du Roi. The king's quarters.

Quartier des Fleurs, Fr. The parks of stores, provisions, &c.

Quartier d'Hiver, Fr. Winter quarters. Count de Turpin has written largely upon this subject. See Essai sur l’Art de la Guerre; likewise, Suite de la Science de la Guerre, tom. iv. p. 320.

Quartier de Rassemblements, Fr. Those places are so called in which troops are permitted to halt and take up their quarters for any period, during a campaign.

Quartier de Fourrages, Fr. Foraging quarters. When the active operations of a campaign are necessarily interrupted by the inclemency of the season, means are adopted to lessen the heavy expenses of winter quarters, by remaining a certain time in foraging quarters. A wise general will take care to live as long as he can upon his enemy's country, in order to draw as little as possible from his own.

Quartier du Roi, ou du General, Fr. Head quarters, or the spot where the king or the commander in chief resides. When an army takes up its ground in low marshy places, &c. the royal or head quarters are marked out in the most advantageous manner, so as to have the king's or general's person secure. When an army into action or stood in battle array, it was customary, among the French, to say, Le Quartier du Roi est partu. The king's station is everywhere. Nevertheless, it was always judged prudent, not to expose the royal person or the commander in chief too much. On this principle, head quarters were always stationed in a place which was surrounded by the best troops, and was supported by equalement the right and left, with the addition of a sea guard. Since the revolution, these arrangements have been much changed. It cannot, however, be uninteresting to give a general outline of what was practised during the monarchy. The Quartier du Roi or head quarters, when a town was besieged, were always fixed out of the reach of ordnance, and in a village that was well secured by entrenchments. Before the cannonade commenced, it was usual for the besieged to ascertain the exact station of head quarters, that their fire might not be directed towards them; nor did the real assault of the town take place from that direction. Wherever the king, or, in his absence, the commander in chief took up his quarters, the camp assumed its name from that particular spot or village.

Quartier général de la tranchée, Fr. Head quarters or principal station of the trenches. That spot is so called in which the commanding officer of the trenches takes post, and to which all reports of head quarters are always sent, and conveyed. When the siege is somewhat advanced, it is usual to fix this quarters, near the outlet of the last parallel which leads to the head of the saps, in the principal line of attack.

Quartier d'Assemblée, Fr. The ground on which troops assemble to commence their military routes, or to be otherwise prepared for active operations.

Un Quartier bien retenu, Fr. A quarter that is well occupied.

Un Quartier Entier, Fr. Quarters taken possession of by force.

Officiers du Quartier, Fr. Officers who were upon duty for three months, or during the space of one quarter of a year. This term was used in the old French service, to distinguish such officers from those who did duty throughout the year.

Etre du Quartier, Fr. To be upon duty for three months.

Quartier General, Fr. General head quarters.

Quartier-Maître, Fr. Quarter-master. This term, with respect to foreign troops, corresponds with maréchal des logis in the old French service.

There is a quart-
ter master-general in the Turkish service, whose immediate duty is to mark out the ground of encampment, the instant he has received orders to that purpose from the grand vizir, or, in his absence, from the seraskier, who is the general in ordinary, and who is always with the army, whether the grand vizir be present or not.

QUATRE, Fr. Four. To QUELL. To crush, to subdue. Military force is sometimes resorted to by the civil magistracy to quell riots, &c. In England, the riot act must be read by a justice of the peace, and if the rioters do not disperse, the magistracy may order the officer to do his duty, by firing, &c. upon them. When military force is ordered, there is not any necessity for this preliminary caution.

QUERELLES, Fr. quarrels, fights, &c. An expression used among the French, to signify a drunken quarrel.

QUIET. See QUIETISM. Apathy. Indifference. QUIETISTE, Fr. The state of those persons who did not take an active part in the French revolution.

QUIETISM. Apathy. Indifference.

QUIETISM. Apathy. Indifference.

QUICK. Time. To QUIET. To leave, to abandon. To QUIET a camp, to carry the tents and put them in order. To QUIET one or another to QUIET the army. To QUIET the enemy close at your heels. As QUIET as the hare. As QUIET as the goose. As QUIET as the lea.

QUICK MATCH, in laboratory work. See LABORATORY.

QUINTUPLE. Fivefold.

QUINTAIN. A small, low thrust in fencing, delivered at the outside of the position, with the nails turned up, as in low caste. When this thrust is forced over the blade from the guard in castle, it is termed a foot.

QUINTESSENTIAL. Essential.

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Q U I Z

Any officer or soldier, who, during the heat of an engagement, shall quit his post before he is regularly relieved, or who, without authority, is ordered to suffer death, or such other punishment as may be inflicted by a general court-martial.

QUIT your arms. A word of command which was formerly given in infantry regiments, but is now lost aside.

QUITTANCE, fr. receipt, acquittance. A word of command. The same rule exists in all parts of the world.

QUIZ. A cant word much in use among fashionable bucks or blades, as certain creatures are called. It signifies to turn another into ridicule, by some allusion to his dress or manners, some ironical word or quaint expression. In other terms, to take unwarrantable liberties with the natural defects, or harmless habits of unoffending individuals. This absurd and childish practice, which grows out of ignorance, is supported by privileged assumption, and ought to be discouraged by every sensible man, and sometimes found its way into the British army. We need scarcely add, that it has frequently been the cause of the most serious quarrels, and is always contrary to good order and discipline. Commanding officers should, on all occasions, exert their authority, and whenever there appears the least tendency to this unmanly, unofficer-like, and ungentleman-like custom, it ought constantly to be remembered, that the influence of evil is much stronger upon the commonalty of mankind, than that of good. If an officer suffer himself to be quizzed by a brother officer, he will, by degrees, become ridiculous to the soldiers; and if he resent it, as he ought to do in primo limine, by a manly explanation with the weak fool who attempts to be witty, without possessing one spark of real wit, it is more than probable, that much ill blood will be engendered between them. The British Articles of War have, in some degree, provided against this evil. It is there specifically stated, that no officer, non-commissioned officer, or soldier, shall use any reproachful or provoking speeches or gestures or another, upon pain, if an officer, of being put in arrest (or if a non-commissioned officer or a soldier, of being imprisoned) and of asking pardon of the party offended, in the presence of his commanding officer.

A QUIZZER. A creature, who, by an out possessing any real wit or humor, affects to turn others into ridicule, by an insolent allusion of the talent. The thing is generally found among those calling themselves fashionable young men, which, to use a very appropriate expression, has more money than wit, plumes itself upon wealth or connexion, and endeavors to make up by noise, to bluster, and privileged contradiction, what it wants in real knowledge and solid understanding. It is sometimes seen at a military mess, and about the parterres of taverns and gaming tables.

QUOIL, in gousty, a rope laid round in a ring, one turn over another.

QUOINS, in architecture, denote the covers of brick or stone walls.

QUOIN, (Quin, fr.) a wedge used to hold under the breach of a gun, to cause or depress the metal.

QUOIT, the ancient discus—a kind of stone ball, still practised in all parts of the world. It consists in throwing a iron ring to a considerable distance, at a wooden peg, driven into the ground.

QUOTIENT. In arithmetic, the number resulting from the division of a greater number by a smaller, and which shows how often the smaller, or the divisor, is contained in the greater or dividend.

R

RACIET, formerly a name given to a small sort of ordnance between a calumet and a base, about one inch and a half diameter in the bore, five feet six inches long, and 300 pounds in weight, loaded with six ounces of powder, and carrying a shot one inch and three-eighths in diameter.

RACHAT du pain, fr. a certain pecuniary allowance which was made in the old French service to the officers of each company, for the surplus rations of ammunition bread that were left in the purveyor's hands. The same rule exists in the British service, when troops are in camp or barracks.

RACINE, fr. See Roor.

RACLOIR, fr. A scraper. It is used in the artillery to clean out mortars.

RACOLER, fr. To entice men to enlist.

RACOLEUR, fr. A crimp, a bringer of recruits, one who entices others to
RAFFINAGE, Fr. a term used by the French to express the operation through which saltpetre passes after it has been boiled once. It is used by some to take the word's alliterative, and by others to assert elevations at sea.

RAFFINES, Fr. a wooden cask, or copper vessel, in which saltpetre is deposited after it has been boiled once. It usually remains thirty minutes, after which it is let out through a cock fixed to the exterior side.

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Battering RAM, in antiquity, a military engine used to batter and beat down the walls of places besieged.

The battering ram was of two sorts, the one rude and plain, the other compound. The first seems to have been no more than a great beam, which the soldiers bore on their arms and shoulders, and with one end of it, by main force, assailed the walls. The compound ram is thus described by Josephus: it is a vast beam, like the mast of a ship, sheathed at one end with a head of iron, something resembling that of a ram, whence it took its name. This was hung by the middle with ropes to another beam, which lay across two posts, and hung there, being balanced; it was by a great number of men drawn backwards and pushed forwards, striking the wall with its head.

Plutarch informs us, that Mark Antony, in the Parthian war, made use of a ram 80 feet long; and Vitruvius tells us, that they were sometimes 150, and 120 feet long: to this perhaps the force and strength of the engine was in a great measure owing. The ram at one time was managed by a whole century of soldiers; and then being exhausted, were seconded by another century; so that it plaved continually, and without any intermission.

The momentum of a battering ram 28 inches in diameter, 180 feet long, with a head of cast iron of one ton and a half, weighing 41,112 pounds, and moving by the united strength of 1000 men, will be only equal to that of a ball of 36 pounds, when shot point blank from a cannon.

Rammner, an instrument used for driving down stones or piles into the ground in military works; or for beating the earth, in order to render it more solid for a foundation.

Rammer, or ramrod of a gun, the ramsdow or swastick, a rod used in charging a gun, to drive home the powder and shot, as also the wad, which keeps the shot from rolling out. The rammer of a piece of artillery, is a cylinder of wood, whose diameter and length are each equal to the diameter of the shot, with a handle fixed to it, at the end of which is another cylinder, covered with lamb-skin, so as to fit the gun exactly, and called a sponge: it is used to clean the piece before and after it is fired. The ramrod of a musquet is an entire piece of iron.


Rampart, in fortification, or, as some call it, but improperly, ramper; the great massy bank of earth raised about a place to resist the enemy's shot, and to cover the buildings, &c. On it is raised a parapet towards the country. It is not above 18 feet high, and about 6 or 70 thick, unless more earth be taken out of the ditch than can be otherwise disposed of. The rampart should be sloped on both sides, and be broad enough to allow the machine of wagons and cannon, besides the parapet which is raised on it. The rampart of the half moon is better for being low, that the small arms of the besieged may the better reach the bottom of the ditch; but it must be so high, as not to be commanded by the covert-way. The rampart is encompassed with a ditch, and is sometimes lined with a fausse-bray and a berme.

Ramps, (Ramper, Fr.) in fortification, are sloping communications; or, very gentle ascent, leading from the inward area, or lower part of a work, to the rampart or higher part of it.

Ramparts, in fortification, are kind of low works made in the ditch, of a circular arc; they were invented by M. Belidor, and serve instead of tenailles.

Ramasse, Fr. a kind of sledge, in which travellers are conveyed from the tops of mountains that are covered with snow.

Ramaser, Fr. to collect, to get together. On a ramasser tout ce qu'on a pour trouver de soldats. They got as many soldiers together as they could.

Ramasser, Fr. Gathered together, collected. This word is likewise used to distinguish men that are hastily raised and embodied, from soldiers who have been regularly disciplin'd, viz. Ce ne sont pas des troupes regulieres, ce sont des gens ramassés. They are not regular troops, but persons hastily got together.

Ramassé, Fr. strong, vigorous. Un homme ramassé. A strong athletic man.

Ramaize, in this sense, agrees with the English word tight-built, thickset, &c.

Ramazan. See Ramadan.

Ramperger, Fr. an advice boat.

Rame, Fr. an oar. It is likewise called Aviron.

Baile Ramar, Fr. Cross-barrow.

Rampeaux de la mine, Fr. Branches belonging to a mine. See Gallery.

Rameaux au pied extrémement douce qui ont fait le long des talus des ramparts, Fr. a slope, or declivity which is extremely gradual along the talus of ramparts. These slopes contain two toises in breadth, and are cut upon the interior talus. They are made, according to circumstances and the exigencies of the place, sometimes within the angle of the rampart, opposite to the entrance into the bastion, when the latter is full; sometimes along the flanks, or at the flanked angle when the bastion is empty. Pieces of ordnance, ammunition, &c. are conveyed by these slopes to the embrasures of the ramparts.

Rancher, Fr. a sort of ladder which is made of wooden pegs, and is used on various occasions.

Rancon, Fr. Ransom. It was
likewise the name of an old French weapon, consisting of a long stake with a sharp iron point at the end, and two blades or wings bent backwards, and extremely keen.

**RANCONNER, Fr.** to ransom.

**RANDOM shot,** in artillery, when the piece is elevated at an angle of 45 degrees upon a level plane. See **Range**.

**RANG, Fr.** Rank.

**Rang d’un escadron ou d’un bataillon,** Fr. Rank in an squadron of horse, or battalion of infantry. Any straight line which is formed by soldiers standing by the side of each other, is so called.

**Double up,** or to throw one’s back, and extremely enlarge a given number of men, by diminishing their shoulders. See **Ranging.**

**Ranging,** in war, disposing the troops in proper order for an engagement, manning the earthworks, &c.

**RANG OF SUBORDINATION,** degree of authority. The relative situations which officers hold with respect to each other, or to military things in general. Hence **Regimental rank,** local rank, rank in the army, &c.

One of the egregious errors of the British military institutions is, that the officers belonging to the life guards are entitled to the rank of lieutenant colonel, when they obtain, or purchase a majority, provided they have been seven years. Their commissions in this case run major and lieutenant colonel. But if an officer should not have completed either of those periods, he obtains the rank of major only, until its completion. A lieutenant colonel receives the rank of full colonel if he has been seven years major, or twenty one years in the British service. Colonels in the life guards rank as sub-lieutenants in their own corps, and as first lieutenants in the army. The English fusiliers enjoy the same privilege. Sub-lieutenants in the Welsh fusiliers rank only as second lieutenants in the army. Marines do the same.

**RATING,** in art, the relative rank which is observed in military corps with regard to precedence, tour of duty, &c. In some instances **rang et grade** mean the same thing.

**De rang,** Fr. abreast, side by side.

**Partir sur les rangs,** Fr. to enter the list.

**Etre sur les rangs,** to be numbered amongst any particular set of men.

**Mettre au rang,** Fr. to elect with, to associate.

**Vaisseau du premier rang,** Fr. a first rate ship of war.

**Vaisseau du second,** ou troisième rang,** Fr. a second or third rate.

**Ranger en clair,** Fr. to sail along the coast.

**Placer par rang de taille,** Fr. To size.

**RANGE,** in gunnery, the distance from the battery to the point where the shot or shell touches the ground.

**Point blank range,** when the piece lies in a horizontal direction, and upon a level plane, without any elevation or depression, the shot is said to rank a point blank range. See **Point Blank.**

**RANGE,** Fr. a series of things placed upon the same line.

**RANGEE,** Fr. the participle of **Range,** drawn out or placed in regular order.

**Battle range,** Fr. a pitched or set battle, in which two armies are drawn up opposite one another.

**Range,** Fr. to place in a certain line or order.

**Ranger en ordre,** Fr. a term in general use amongst the French when any number of persons are ordered to clear the way, by drawing up on one side or the other of a street.

**Ranging,** in war, disposing the troops in proper order for an engagement, marching, &c.

**Rank,** rank in a squadron of horse, or battalion of infantry. Any straight line which is formed by soldiers standing by the side of each other, is so called.

**Double up,** or to throw one’s back, and extremely enlarge a given number of men, by diminishing their shoulders. See **Ranging.**

**Ranging,** in war, disposing the troops in proper order for an engagement, manning the earthworks, &c.
officers are to take rank according to the dates of their commissions. The same holds, with respect to the foot guards.

Regular officers, with whom militia officers take rank as youngest, command officers of equal degree in the fencibles, yeomanry cavalry, and volunteer corps, who are to rank together according to the dates of commissions.

Post captains of three years stand—

To rank, with, in a figurative sense, to have the same rank and precedence with regard to others. Thus post captains of three years stand—

Royal Navy:
- Admiral, with whom command officers take rank as youngest, commanding the British fleet, has the rank of a field marshal; admirals, with their flags on the main top-mast head, rank with generals of horse and foot; vice-admirals, with lieutenant generals; rear-admirals, with major generals; commodore, with broad pennants, as brigadier generals; captains of post ships, after three years from the date of their first commission, as colonel; other captains as lieutenants; lieutenants as ensigns. The rank and precedence of sea officers in the classes above mentioned, are to take place according to the seniority of their respective commissions in the sea service. Post captains commanding ships or vessels that do not give ports, rank with captains of post ships, as lieutenant colonels; captains not taking post, as majors; lieutenants as ensigns.

Washington with Cincinnatus; Montgomery with Wolfe, Decatur with S. Laurence, &c. There is likewise a sort of brevet rank for officers to command on shore; nor shall either have right to command the military honors due to their respective ranks, unless upon actual service. Rank, is a straight line made by the soldiers of a battalion, or squadron, drawn up side by side: this order was established for the marches, and for regulating the different bodies of troops and officers which compose an army.

Doubling of the ranks, is the changing one rank to two, by telling off the files, one, two, one, two, &c. and by the word, even files to the rear double; this method is frequently used in the manoeuvres of a regiment.

Regiments and files, are the horizontal and vertical lines of soldiers when drawn up for service, &c.

Rapine, plunder.

Rappoport, Fr. Report.

Rapides, Fr. Falls in a river are so called; as the falls in the rivers Ohio and St. Lawrence, &c.

Rapier, (Rapère, Fr.) formerly signified a long, old fashioned broad sword, such as those worn by the Scotch regiments, but now is understood only to mean a small sword, in contradistinction to a broad sword.

Rapine, Fr. Plunder.

Rappor, Fr. Rapport.
Rat

an instrument made in the figure of a half-circle, and divided into one hundred and eighty degrees. We call it a protractor. It is used for the purpose of ascertaining the openings in angles, and to take plans upon paper.

RAREFACTION, the extension of the parts of a body, by which it is made to take up more room than it did before. It is essentially connected with gonomy; for in proportion to the rapid combustion and consequent rarefaction of air, produced by the ignition of gunpowder confined in the chamber of a gun, so will be the force to which the charge is referred. In proportion to the rapid combustion the open filings in angles, and to take plans of their manhood and self-respect. The Prussians abolished this barbarous custom after the battle of Jena.

RATER, fr. a rack used in armories, &c. for the purpose of keeping firearms arranged in proper order.

RAT, fr. to miss fire. Aa pistol a rate. His pistol has missed fire.

RATES likewise means, figuratively, to be unsuccessful in an application. Il a rate sa charge. He did not get the commission.

RATES of subsistence. See Rat.

RATION, a certain allowance which is given in bread, &c. or forage when troops are on service, for an officer or soldier in the British service.

Complete Ration of the small species.

<table>
<thead>
<tr>
<th>Item</th>
<th>Allowance</th>
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<tbody>
<tr>
<td>Flour, or bread</td>
<td>1 lb.</td>
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<tr>
<td>Beef</td>
<td></td>
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<tr>
<td>Of pork</td>
<td>1 lb.</td>
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<tr>
<td>Peas</td>
<td>1 lb.</td>
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<tr>
<td>Butter, or cheese</td>
<td>1 lb.</td>
</tr>
<tr>
<td>Rice</td>
<td>1 lb.</td>
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</tbody>
</table>

When the small species are not issued, 1 lb. of flour or bread, 1 lb. of beef, or 1 lb. of pork, forms a complete ration; or 3 lbs. of beef; or 2 lbs. of cheese; or half a pound of rice, forms a complete ration.

RASANTE, fr. See Liquid Rante.

RASANTE, fr. fortification, bastion.

RASANT, § rank, or line, is that part of the curtain or flank whence the shot projected or glanced along the surface of the opposite bastion.

RASE, fr. Pins and tar mixed with tow for the purpose of caulking a ship.

RASLE, fr. This word is used in some parts of France to signify rafter, and means the same as chevron.

RASSEMBLER, fr. to collect together.

RASSEMBLER des troupes, fr. to call troops or forces together.

RASSEMBLER les débris d'une armée, fr. to call together the broken parts, or scattered remnants of an army. It is likewise used with the personal pronoun, viz. Tous les soldats dispersés se rassemblent autour du drapeau. All the soldiers or troops that had been dispersed, gathered together round the standard or colors.

RASSEMBLER les forces d'une échoual, to put a home well upon his haunches.

RASSIS, fr. Stale; as pain rassis, stale bread.

RASSURER, fr. to restore confidence, to encourage, to invigorate. Quelques soldats commencent à s'esblander, quand l'exemple de leur capitaine les rassemble. Some soldiers began to give way, when the example of their captain inspired them with fresh confidence.

RAT, fr. literally means rat. It is used in a figurative sense, viz. Une armée en feu a pris un rat. A musquet has missed fire.

RAT, fr. a sort of floating platform made of planks which are tied together upon two or three masts. It is used in floating ships, &c.

RATAN, a cane used by sergeants of companies, in the British service in drilling the men, and with which, in other countries, the non-commissioned officers; and privates, are beaten for slight offenses; the Austrian discipline was thus conducted, till they have been beaten out of their manhood and self-respect. The Prussians abolished this barbarous custom after the battle of Jena.
proportions with beef, viz. half in beef; the other half in flour, suet, and raisins, on each beef day.

Ration for a horse on home service in 1796: 14 lbs. of hay, 10 lbs. of oats, 4 lbs. of salt, for which a stoppage is made of sixpence per day.

The French use the same term, viz. ration de fourrage, a ration of hay. Double ration, double ration. Demi-ration, a half ration.

Ration d’un fantassin, Fr. the ration or allowance which is given to a foot soldier. During the French monarchy it consisted of twenty-four ounces of ammunition bread, one pint of wine or beer, Paris measure, one pound of beef, veal, or mutton.

Ration pour les troupes de la maison du roi, Fr. the ration for the household troops, during the French monarchy, consisted of two pints of wine, or two pints of cider or beer, Paris measure, and two pounds of beef and a half of meat, veal, or mutton.

Ration de cavalerie, Fr. Each man belonging to the old French cavalry, received daily one ration, consisting of thirty-six French ounces of ammunition bread, one pint and a half of wine, cider, or beer, Paris measure, and two pounds of beef, veal, or mutton.

Ration de dragons, Fr. the ration allowed to each dragoon in the old French service, consisted of one pound of hay, and one bushel of oats, Paris measure.

Rations des officiers du régiment des gardes françaises, Fr. rations allowed in a regiment of French guards during the monarchy. These rations differed very considerably from those already stated. The particulars may be found in the third volume of the Dictionnaire Militaire, page 355.

Ratissoirs, Fr. Graters used by the men employed in making saltpetre.

Ravages of War, the spoil, plunder, or waste, made by contending armies in the theatre of war.

Ravelin, Fr. See Fortification.

Ravelins, in fortification, are works raised on the counterscarp before the curtain of the place, and serve to cover the gates of a town, and the bridges. They consist of two faces, forming a salient angle, and are defended by the faces of the neighboring bastions. They are the most in use of all out-works, and are by the soldiers most commonly called half-moons, demi-lunes. They should be lower than the works of the place, that they may be beyond the fire of the besieged. Their parapets, as those of all other out-works, should be cannon proof; that is, about 18 feet thick.

Ravine, in field fortification, a deep hollow, usually formed by a great flood, or long continued running of water, frequently turned to advantage in the field.

Ravitailler une place, Fr. To
throw stores, ammunition, and provisions into a fortified place.

RAY, Fr. rilled.

Crosse RAYE, Fr. rifle barrel.

RAYON, Fr. in geometry, radius. RAW, in a military sense, unseasoned, unripe in skill, wanting knowledge in military tactics, &c.

RAW troops, inexperienced soldiers; men who have been little accustomed to the use of arms. This term is generally used to express an army which is composed of raw troops; and a rash intemperate one will equally miss the proper application of the spirit and man, which ignorance of danger, and confidence of success, almost always give. Some of the most brilliant actions, and some of the greatest victories have been achieved and won by means of that daring impetuosity, which hurries raw troops into the thickest of an enemy. A thousand instances might be adduced from ancient and modern history, to prove the correctness of this remark. It may, perhaps, be sufficient for our purpose, to refer the curious reader to the sub-divisions of its rear rank aml of every two battalions, being considered as a battalion, they march out in column, and prolong the line, by which mode

FORMING TO THE REAR. An alignment may be formed to the rear of any given battalion or platoon; either by posting guides, or moving a battalion to the required position, each battalion or platoon to be then marched to its relative place in the general line. So columns may be formed upon a given section or platoon marched or posted in a required position.

REAR line, of an army encamped, is usually 1200 feet at least from the centre line; both of which are parallel. It sometimes happens, that through oversight, forgetfulness, or ignorance, and confusion, troops are so clubbed, that the deployment of a column, the different troops and companies not only lose their stations in the line of original formation, but the rear rank men stand where the front rank men ought to be; in the latter case, they appear rear front. This error might be easily remedied, by counter-marching the several troops and companies.

REAR rank, When a regiment, troop, or company is drawn up two or three deep, the last line of men is called the rear rank.

REAR ranks, all the ranks of a line, regiment, troop, or company, which are ranged in order before the front rank.

REAR rank, take open order. A word of command which is given in the manual and other parade exercises. It is likewise used in marching by the general at a review, or on guard mounting, &c. See OPEN ORDER.

REAR bay files, are the three hindermost ranks of the battalion, when it is drawn up six deep.

REAR front. When a battalion, troop, or company is faced about, and stands in that position, it is said to be rear front. It sometimes happens, that through oversight, forgetfulness, or ignorance, and confusion, troops are so clubbed, that, on the deployment of a column, the different troops and companies not only lose their stations in the line of original formation, but the rear rank men stand where the front rank men ought to be; in the latter case, they appear rear front. This error might be easily remedied, by counter-marching the several troops and companies.

REAR rank lengthening out a line. Although a single battalion may, by opening its companies and files, form a deep column, yet a considerable line posted, which is to be lengthened out to over both flanks by its rear rank, must, to greater advantage, perform such operation, by each company quarter wheeling the sub-divisions of its rear rank and facing to the hand they are to march to; the last rank of each company closes up to its first; the sub-divisions of each battalion, move up to open distances from their respective head ones, and from each other; officers from the rear are appointed to command them; those of each or of every two battalions, being considered as a battalion, they march on in column, and prolong the line. By this mode
The drummers, &c. The different officers of the regiment. The soldiers, the whole, surrounded by the principal officers.

The field officer, who was to be admitted captain and subalterns formed a circle; circles being concentrical to each other.

The correspondent of the king, for the good or the king's service.

To receive an enemy. To make the best disposition possible of your troops, for the purpose of meeting the attack of an enemy that is advancing against you.

To receive a general or reviewing officer. To be drawn up according to specific regulations which are laid down, for the purpose of paying the compliments that are due to the rank of a superior, or commanding officer.

RECEPTION d'un officier dans un corps, Fr. A ceremony which was performed in the old French service, when an officer first joined. This was done by beat of drums in front of the company. The officer was received, accosted, and addressed according to regulation, faced towards his men, and as soon as the drums had ceased, took off his hat to his commanding officer, who did the same to him, and then addressed the company in the following terms:

De par le roi, soldats, vous reconnaître M. ... pour votre capitaine, ou pour lieutenant de la compagnie, et vous lui obéirez en tant qu'il vous ordonne pour le service de roi en cette qualité.

From the king or pursuant to the king's will. Soldiers, you will acknowledge M. ... to be captain, or lieutenant, of the company, and you will obey whatever orders or commands he may issue, in that capacity, for the good of the king's service.

When a colonel or major was received at the head of a corps, the word soldiers, soldiers, was altered into messieurs, gentlemen; the latter term including both officers and men. On this occasion, the corps of captains and subalterns formed a circle; round them stood the serjeants drawn up in the same manner, and beyond the serjeants, the drummers, &c.

The different circles being concentrical to each other. The field officer, who was to be admitted or to take command, stood in the centre of the whole, surrounded by the principal officers of the regiment.

RECETTE, Fr. A trough, which persons employed in preparing saltpetre, &c., places beneath tubes filled with broken rubbish, ashes, &c., for the purpose of receiving the liquid that is filtered through.
The following observations to be made in examining a country in a military point of view, are principally translated from the

To RECOMMEND. When a young gentleman wishes to enter the army, his first object is to get well recommended for that purpose. There is no regulation to determine fitness, and on this account a great many are appointed who are afterwards found unfit.

RECOMMENDATION, in a military sense, is a letter from some influential character, member of congress, or other citizen, stating an individual to be properly qualified for a situation in the army.

RECOMPENSES military, Fr. Sé.

RECONNAISSANCE, Fr. To reconnoitre.

RECONNAISSANCE of a fortified town or place.

RECONNOITRE, in military affairs, implies to view and examine the state of things, in order to make a report thereof.

Parties ordered to reconnoitre, are to observe the country and the enemy; to remark the routes, conveniences, and inconveniences of the first; the position, march, or forces of the second. In either case, they should have an expert topographer, capable of taking plans readily; he should be the best mounted of the whole, that in case the enemy happen to scatter, he may save his works and ideas.

All parties that go for reconnoitring only, should be but few in number. I would never chuse more than twelve or twenty men. An officer, be his rank what it will, cannot decline going with so few under his command; the honor is amply made up by the importance of the expedition, frequently of the most interesting consequence, and the propriety to recommend the prudence, bravery, and address of an officer that has the fortune to succeed.

It is previously necessary that the officer ordered on this duty should be well acquainted with the country, the roads, and the distance of the enemy. His party must consist of men of approved fidelity, part of whom should be illiterate. This detachment must march off in the night. The men must have strict orders neither to smoke tobacco, make noise, nor speak. The officer must be provided with two guides, who are to be strictly interrogated, but are to remain ignorant of the route you intend to take. A detachment of this kind should be furnished with subsistence for one or two days. The horses are to be fed every ten or twelve miles, for it is absolutely necessary that they should be always fresh and fit for duty. Therefore the officer will take care never to halt, but at a distance from any road, and also take every precaution to prevent his being surprised, whilst his horses are feeding, &c.
3. Roads. The principal points to be attended to in examining roads for military purposes, are, their direction; the villages, countries, and rivers, which they pass through; the roads which cross them; their names and the seasons in which they are in best condition; and if ever impassable; their breadth, whether variable or constant; their bottoms, of what principally formed; their ascents and descents, whether practicable for all kinds of carriages. The enclosures may be hedges, ditches, walls, or fences. If they pass over rivers, remark whether by bridges or fords; if through marshes, whether by canals or otherwise. If two or more roads pursuing the same route, and by which different columns may march, at any part join or cross each other, it will be necessary to observe, whether the march of the columns will be thereby impeded. If they only cross each other, it will be sometimes possible in hollow ways, to throw a temporary bridge across the deepest, by which one column may pass over and the other under the bridge, without interrupting each other's march.

2. Forges. A ford for cavalry ought not to be deeper than four feet; for infantry not more than three feet. Observe the banks of the ford at each side; their form, steepness, and height; their situation as to the turnings of the river. Their bottom, whether passable for carriages. Observe marks by which the ford may be readily found; points from which it may be protected. Notice the rapidity of the water; whether its height be variable; its direction, its breadth, and the means by which the ford may be destroyed or rendered impassable.

3. Inundations. Learn the manner of working the sluices; the time in which the inundation may be effected; its extent and depth. Observe how the dam may be protected; its height and solidity; whether it can be easily raised, or easily destroyed; whether it is commanded by distant positions, and whether the inundation can be otherwise drained. Notice the adjacent country.

4. Springs and wells. Attend to the quality and quantity of the water; whether it will serve for the cavalry, as well as infantry, and the manner of its being drawn. Observe the situation of the spring, and of its source, whether it can be protected, and the enemy prevented from cutting it off.

5. Lakes, marshes, and swamps. Learn their cause; if arising from the overflowing of rivers or from springs. Observe their situation, and the appearance of the surrounding country. Whether the swamp can be drained, and whether the swamps can be defended against the passage of an enemy's column. Learn their depth; whether the trees are lofty or low; whether the forest is level, sloping, or hilly; swampy or dry. Observe the nature and condition of the roads, if they pass across the same, and their cause; if arising from springs or wells. Attend to the face of the country round the forest, whether cultivated fields or meadows: whether it affords positions; is intersected by rivulets, swamps or ravines.

6. Highs. Learn the ground of the forest be level or hilly, swampy or dry. Observe the nature and condition of the roads, if they pass across the same, and their cause; if arising from springs or wells. Attend to the face of the country round the forest, whether cultivated fields or meadows; whether it affords positions; is intersected by rivulets, swamps or ravines.

7. Heath. Notice for what nature of troops they are best calculated. The nature of hedges and brush wood; some form a good breast work. Observe the directions of the rivulets, roads, and trees. When the ground of a heath is of the common color, the roads are usually good; but when it is blackish and mixed with white sand, the roads are generally impassable in winter seasons.
8. Canals. For this article see also the observations on rivers. Observe their intention; the nature of the soil in which they are dug, their breadth and depth; the canals; the craft found upon them; the best means of protecting or destroying them; learn the countries they pass through.

9. Rivers. Learn in what country they arise, and where empty themselves; the nature of the countries they run through, and whether they belong to us or the enemy. Learn the extent to which they are navigable; and if they ever freeze over, whether strong enough to bear troops and carriages. Notice the quality of the water, its springs, streams, springs, and breadths. The banks and the beds of the rivers. Observe the nature and number of craft that navigate them; and the mills upon their banks, whether of wind or water. Visit the bridges and fords; and make the proper remarks on their nature and situation. Learn whether the rivers ever overflow their banks, and at what seasons; and whether or not this causes inundations. Observe the most favorable points for crossing, and the roads leading to these points. The turnings and windings of the rivers, the form of their peninsulas; and the most favorable situations for throwing over bridges. If there are any wharves on the banks, observe what craft can lie along side of them.

If there are islands in the rivers, note their size, their banks; whether inhabited or cultivated, wooded, or barren; and whether they command the channel. Observe the mountains and high grounds near the rivers; remark their distance from the banks, and the advantages or disadvantages which they offer. Learn what branches or confluence of other rivers there are either above or below, the best situations for crossing. Examine the positions which the adjoining country affords an army to protect the passage of the river; and whether in a perpendicular or parallel direction; and the routes by which three or four columns may arrive at the place.

10. Passes. Observe their breadth, their length, and their situation; the nature of the adjacent country; the best positions to occupy to cover a retreat; or to dispute the pass. How the troops would be best arranged; and the number that would be required for this purpose.

11. Revetments, batteries. Observe the nature of the soil; whether rocky, or of loose flints. If the sides are rugged and steep, whether they can be easily scarped off. The points against them: whether storms or floods are to be apprehended; and at what seasons most expected.

12. Cultivated lands. Notice their state of cultivation: their productions; their time of harvest. Learn what quantity of wheat, rye, barley, oats, maize, or other grain they produce, and above the necessary subsistence of the inhabitants. How much grain or hay they yield per acre.

13. Orchards. Observe whether they are thick planted and alved a good cover; their enclosures, whether wood fences, hedges, ditches, walls, &c. How much fruit they yield; and whether the fruit can be collected without the least danger of the enemy.

14. Bridges. Remark their situation; their length and breadth; the materials of which they are built; their strength, whether sufficient to bear artillery; the roads leading to them; their situation, as to the turnings of the river; their purpose; if to connect towns and villages, the nature, direction, and breadth of the streets leading to them. Observe the country around, whether flat or commanding; study the best means of forming the bridge head; and observe the best and most expedient mode by which the bridge may be destroyed, &c.

15. Mountains, hills. Amongst high mountains, such as the Alps, roads are very rare; it is seldom more than the valleys that are inhabited and accessible for troops; observe their slopes, if steep or rugged. Examine the positions: means of gaining the summits; and the state of cultivation and general appearance of the valleys; the pasturage, forest, cottages, villages, castles, roads, paths, and passes. Distinguish the principal chains of hills and their direction. Their relative heights; whether they are sufficiently extensive to form a line of defense; their communications; their strong points; positions proper for batteries, &c. Whether practicable for cavalry and artillery.

16. Coasts. Their nature; whether bordered by sand hills; surrounded by rocks, which render their approach dangerous; or by shoals, which make their access impracticable; note the points and headlands proper for the forts and batteries to defend the anchorage, ports, harbors, or other accessible parts. If there are any adjacent isles, perhaps they will serve for the erection of advanced batteries, to form a barrier to the efforts of an enemy. Observe the nature of the shores, bays, roads for shipping, &c. With the winds required to go in and out the harbors; and whether they are of easy access; their advantages and disadvantages, their size and depth of water. If a river empties itself on the coast, observe the particular channel for shipping, and whether it can be defended by any of the batteries. If the coast is already fortified, observe all the batteries, forts, or intrenchments, established for its defense, and the protection of the anchorage, &c. Examine the camps and other military posts: which control the principal points, and the interior of the country. Estimate all the dangers to be run, and all the obstacles to be overcome in a descent, and point out the means of augmenting them. Observe the time of the tide most favorable for approaching the coast. Ascertain the number of artillery and other troops constantly on the coast, and the force that can be collected at a
short notice; and how soon they can be
drawn to any particular point attacked.
Examine the system of defence adopted,
and the improvements of which they are
susceptible. The advantages which the
ground would afford between the glacis
and the lines, either to the besiegers or
besieged; the means of establishing not
only certain communications between the
different quarters of the army, and the
means of cutting them off.
22. Positions. Every military position
ought to possess decided advantages of
situation, and ought to be commanded in
no part of its front, flank, or rear. All
commanding grounds ought to be without
the range of cannon. There are four prin-
cipal objects to be attended to in the choice
of a position: 1st. The advantages of the
ground; 2d. the ground; 3d. the objects
to be attacked; and 4th. the communi-
cations with the rear. The front of a po-
sition should be intersected by rivers, ra-
vines, or broken ground; the rear by hedg-
es, ditches, or ravines, which can prevent the enemy ad-
vancing in order of battle, or oblige him
to pass through defiles; but a position be-
comes useless when the front is so covered
by obstacles that the army cannot advance
more or less, or that may be thrown into
the camp, and the enemy may cut them off.
All obstacles which cover a position
ought to be crossed or passed without bridges,
narrow roads; deep and broken ravines;
ground much intersected with hedges, ditch-
es, &c.; but it is essential that all
these obstacles should be under the fire
of the artillery. It is always dangerous to
occupy a position, which has its rear so
covered by swamps, crossed by rivers or
ravines, &c., as to render the retreat of the
army difficult. The number of passes by
which an army can retire must be examin-
ed and secured, and should never be less
than 5 or 6. The rivers, books, &c., in
front of a position, should never be de-
pended upon for a supply of water, as the
enemy may cut them off. The ground
for a camp should not be too much inter-
sected by hedges, ditches, or ravines,
which occasion great delays in the line,
and obstruct the communications through
the camp.
In an offensive position it is absolutely
necessary that the army should not be too
much confined by obstacles, but be at
liberty to act in every direction; but in a
defensive position, the fewer accessible
points there are the better; and if the
natural difficulties in front and flank
are not sufficient to render an army at-
tack dangerous, they must be increased by
reinforcements, intrenchments, abatis, inund-
tions, &c. The obstacles on the flank
should also be of such extent that they
cannot be easily turned, without the en-

20. Cities not fortified. Their situation;
population; commerce; commodities;
manufactures; the succors that may be
drawn from them, as to men, horses, &c.
Their squares and principal buildings.
The defence they are susceptible of;
whether they are surrounded by walls,
old towers, ditches, &c. Their gates,
and the roads leading to them. The face
of the surrounding country.
21. Fortified towns. Their situation
with respect to their position, and with
respect to other towns in the neighbor-
hood, whether in the first or second line;
the assistance which they can afford each
other. The succors that may be drawn
from them, or that may be thrown into
them in case of a siege. The direction which
such relief, whether of men or provisions,
ought to take, according to the side attack-
ed; whether they will serve as depots or
hospitals. The state of the fortifications
(see the word fortification in the alphabet);
their nature; the strength of each front:
the rivers in the neighborhood; the sur-
rounding country within the range of
the guns. The form of investment; what
lines will be required considering the na-
ture of the country, and the positions;
and the means the country affords of ex-

17. Forts, redoubts. Remark their form,
whether ancient or modern; whether they are
reverted or temporary; elevated or low;
reverted or demi-reverted, with
stone, brick or turf. Whether the ditch
is wet or dry; lined, or palisaded, natu-
ral or artificial. Observe their situation;
the face of the adjacent country; whether
they effectually command and the passes, or
protect the country intended. The de-
ference they are capable of making in their
present state, and the improvements of
which they are susceptible.
18. Castles, citadels. Their situation;
their form; their extent; their object;
the protection they give. Their
form, most certain communica-
tions between the
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my makes a very great circuit; and consequently exposes his own flank, and weakens his line of communication. In case the enemy detaches a body to attack a defensive position in the rear; the front must be sufficiently strong to enable the general to oppose the enemy's detachments, by a strong body from his own army. In short, the enemy must not be able by any manoeuvre to force the army to quit its position. The want of wood or water, or other supplies absolutely necessary for an army, renders every other advantage of a position useless; nor can a position be long tenable, that is far removed from its depots; and has not its intermediate posts perfectly secure from the attacks of an enemy. These principles, like all others in the ordinary affairs of war, are subject to those exceptions which the creative genius of the general may devise. Thus the first campaign of Bonaparte in Italy, was undertaken by an inferior force without magazines; the general determination was to seize those of the enemy; the same took place in the campaign in 1809, the force hastily collected had no magazines, but by the first battle he penetrated the centre, and cut off two of the corps of the Austrians, and took magazines adequate to six months subsistence from the Austrians. The general principles are nevertheless to be constantly regarded. For further remarks upon positions, see Artillery in the Field, and Amer. Mil. Lib. Article Reconnoitering.

To RECOVER arms, a position of the firelock when the piece is held with the lock in front of the left shoulder, and the sling to the front. The steadiness of soldiers is frequently proved by bringing them to the recovery, after the word take aim. 

To bring to the recovery. See Recovery Army.

RECRUITS, (Recruts, Fr.) men raised for military purposes on the first formation of corps, or to supply the places of such as are disabled, or have lost their lives in the service. For particulars respecting the enlistment of recruits, see Regulations.

RECRUITING, a term prefixed to certain corps and districts, which are specifically established for the recruiting service. Hence recruiting districts.

All recruits made for the regular army of the U. States, are enlisted for five years. In almost every service in Europe men are enlisted for certain number of years, except the British, who insist for life. Experience has convinced the powers upon the continent of Europe, that the system of binding a man during the whole course of his life to military subjection, is contrary to every sound principle of economy, and effective service. The following are the established forms and instructions for the recruiting service, established by the United States.

Instructions to Recruiting Officers, respecting the rendering and settlement of their accounts of bounties and premiums for recruits.

1. Every recruit shall be inlisted, and receive the first payment of his bounty according to the form marked (A.)

2. Every recruit shall be inlisted, and receive the first payment of his bounty according to the form marked (B.)

3. Every officer employed in recruiting, shall, at the expiration of each calendar month, make returns according to the form marked (C.), (D.), and transmit the same without delay to the office of the paymaster of the army of the United States, at the seat of government, or to the paymaster of the district in which he held his rendezvous; who shall with all possible dispatch examine and adjust them.

(A.)

STATE

I, born in aged
years, feet inches high, complexion, eyes, hair, and by profession do hereby acknowledge to have this day voluntarily enlisted as a soldier in the army of the United States of America, for the period of five years unless sooner discharged by proper authority; do also agree to accept such bounty, pay, rations, and clothing as is, or may be established by law. And I do solemnly swear, that I will bear true faith and allegiance to the United States of America, and that I will serve them honestly and faithfully against their enemies or opponents whomsoever; and that I will observe and obey the orders of the President of the United States, and the orders of the officers appointed over me, according to the rules and articles of war.

Sworn and subscribed to, at this day of before

Received of the United States army, this day of dollars, in part of my bounty for enlisting into the army of the United States for five years.

Signed duplicate receipts.

DOLLS, ...

Witness,
MUSTER ROLL of a Company of

in the

of the United States, commanded by

from

when last mustered, to

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<th>Remarks and alterations since last mustered</th>
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RECAPITULATION:

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<th>On detachment,</th>
<th>On command,</th>
<th>On extra service,</th>
<th>On furlough,</th>
<th>In confinement,</th>
<th>Missing,</th>
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<th>Dead,</th>
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(B.)

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RECRUITING ACCOUNT of

in the

(Number of recruits in all Companies) | Number of Volunteers | Period of enlistment | Periods of engagement | Bounty paid | Bounty allowed | Bounty paid, and premium allowed | Premium |
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(Recapitulation goes on the back of Return, and should properly appear on the head of the quarter-book.)

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I do hereby certify, upon my word and honor, as an officer and a gentleman, that this recruiting account exhibits a faithful, accurate, and true statement of all moneys received and paid away by me, on account of bounties and premiums to recruits, not heretofore accounted for; and that the balance of dollars, cents, stated in the above account current, is due from to

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before bastions were invented, and are by some thought preferable to them. They are likewise called *ouvrages à scié*, from their resemblance to a saw.

**REDDITION d'une place**, Fr. The surrender of a besieged place.

**REDIGER**, Fr. To draw out. *Redresser des mémoires*, Fr. To draw out memorials.

**REDISTRIBUTION**, the act of restoring any single substance, from a damaged mixed body, to its former nature and properties. Thus col. Congreve, of the British artillery, by the *redintegration* of niter from damaged gunpowder, has effected a vast saving in that article.

**REDOUBT**, (Redoute, Fr.) in fortification, a square work raised without the glacis of the place, about poulquet shot from the town; having loopholes for the small arms to fire through, and surrounded by a ditch. Both the one and the other serve for detached guards to interrupt the enemy's works; and are sometimes made on the angles of the trenches for covering the workmen against the salies of the garrison. The length of their sides may be about to ten feet; their parapets must have two or three banquettes, and be about nine or ten feet thick. They are sometimes (in a siege) called places of arms.

**REDOUTE**, is also the name of a small
work made in a ravelin, of various forms. See Fortification.

Redoubt, castle or donjon, a place more particularly intrenched, and separated from the rest of a place. There is generally in each of them a high position, from whence the country round the place may be surveyed.

Detached redoubt, is a work made at some distance from the cover way, much in the same manner as a ravelin with flanks. See Arrow.

Redoubts en remailleis, differ from all others, because the inside line of the parapet is broken in such a manner as to resemble steps of stairs, or teeth of a saw; whereby this advantage is gained, that a greater fire can be brought to bear upon the detile, than if only a simple face was opposed to it, and consequently the passage is rendered more difficult.

Redouter, Fr. To be alarmed at. Redouter les armes d'un ennemi, to be alarmed at the strength of an enemy.

Redoutés de terre, Fr. redoubts that are hastily thrown up, and are made with earth, for the purpose of securing entrenchments, circumvolutions, passages of rivers, &c.

Redoutés de maçonnerie, Fr. redoubts made of mason work. These are generally constructed in places where an enemy might derive advantage from establishing himself; they are likewise built upon the salient angles of the glacis.

Redoutres en remailles, Fr. Casemated redoubts. These are arched over and are bomb proof. Those constructed for the defence of Gibraltar, and for the security of Dover Castle, are of this description.

Redoutes à machicoulis, Fr. redoubts made of stone work, which are several stories high. The highest story juts out about one foot beyond the wall that surrounds or fronts the redoubt.

Redrasser, Fr. in a military sense, to recover. To make straight again, viz.

Redresser ses armes, recover arms. Redresser le front, redesign the line.

To Redrill, To drill again. To put a soldier through the first elements of military training. Every soldier on his return from furlough, should be redrilled before he is permitted to act in the ranks of his company.

To REDUCE, is to oblige the governor to surrender it to the besiegers, by capitulation.

To REDUCE a place, is to restore or bring back a battalion or company, which has been formed in circle, to its original position in line.

To REDUCE the square, is to restore or bring back a battalion or battalions, which have been formed in a hollow or oblong square, to their original situation in line or column. On the word form close columns, the front which the column is to have is posted to stand still by its proper officer, whether it be flank or centre; the other portions of the line are faced towards the point of formation; and then quarter faced or wheeled to front or rear; as the column upon the centre, is the best and most effective of all the formations for columns of attack.

To be REDUCED, is to be taken off the establishment, to cease to receive pay as soldiers. When a regiment is reduced, the officers are generally put upon half pay. Sometimes the corps are reduced, and the officers remain upon full pay. This happens at the close of war, when the standing army of the country is confined to a certain number of battalions. Hence in derived to the exception, as well as of the break. In the breach, is the liability of being reduced; out of the break, is the certainty of being kept upon the establishment.

To be reduced to the ranks, is to be taken from a superior appointment in a regiment, and to be ordered to the duty of a common soldier. This sometimes happens, by way of punishment, when a soldier or corporal misbehaves himself.

REDUCTION, See Redoubt.

Redoull ou maintien des troupes, Fr. A reduction of the armed force of a country.

REDUIRE, Fr. in drawing, to copy, to reduce a plan or picture. This operation differs from that of chalking out.

The French use the expression in various senses, viz.

REDUIRE en grand, Fr. To copy an original drawing, by giving it larger dimensions.

REDUIRE en petit, Fr. To copy an original drawing, by giving it smaller dimensions, which is literally to reduce it.

REDUIRE un plan au petit pied, Fr. To make a copy of a drawing, in which every part is faithfully represented, though on a small scale.

REDUIT, Fr. literally means a nook, or bye-place; in a military sense, it signifies a sort of citadel, which is extremely inconvenient to the inhabitants of the town, because it takes up more ground than those that are regularly built, and is, at the same time, uncomfortable to the troops, because they must be very much crowded. This word is explained by an English lexicographer, in the following manner:—Reduit ou Reduites, an advantageous piece of ground, intrenched and separated from the rest of the place, camp, &c. for an army, garrison, &c. to return to in case of surprise. Reduits are sometimes made for the purpose of securing different posts in a town independent of its citadel. These have been proposed by the celebrated Vauban.

REDUIT, in architecture, a recess.

RED, an arrow.

REDIFIER, Fr. To rebuild.
the centre of the place. See Fortification.

Refait, Lat. restitutio et reposita. Fr. An expression used among French carpenters, and by the artificers belonging to the train, to signify any piece of wood which has been planed and made perfectly square and level.

Refend, Fr. In architecture, a partition wall, viz. After de retenue.

To re-form, in a military sense, is after some manoeuvre or revolution, to bring a line to its natural order, by aligning it on some given point. This frequently occurs in the passage of lines, &c. viz. From platoon to platoon, and from battalion to battalion, to signify any piece of wood after some manœuvre, to bring a line to its natural order, by aligning it on some given point. This is correctly done. The first battalion thus studied, will become a sufficient direction for the second, and every other one, to prolong its by its adjutants; and this operation, though successive from platoon to platoon, and from battalion to battalion, may be performed quickly and correctly; if the adjutants are timely detached, and if the head of the column be quickly arranged.

To re-form a first line on a central battalion. In order to give the alignment from a central battalion, after halting and fronting, the platoon pivots of the given battalion are from its head to be accurately lined by its commander, in the true direction. This battalion being placed, from which distances and dressings are taken, the others will instantly proceed to line their pivot flanks upon it; those that are behind it, will readily do this; those that are before it will find more difficulty, as they must take their distances from the rear; to facilitate this necessary object, their platoon officers will face to the directing battalion, and will then successively take their distances and covering from their then front; as soon as each has acquired his true position, he will face and make his platoon join to and dress to him. The line will then be ready to form, by wheeling up to the pivot line.

To re-form a first line, that has passed through a second which remains posted, in an oblique position.

When it is found necessary that the passing battalions, which constitute the first line should take a new position not parallel to the second, or to their own original formation, the commander, with his two leading platoons, will first enter it (i.e. the new position) and direct the others to regulate their flanks by them; and if several battalions are passing the second line, the new alignment is thus made easier for them.

It frequently happens, that a height in the rear is to be crowned by a retiring line. In this case, each officer must not dress exactly to the platoon that precedes him, but in jointing it he must halve, and arrange his own in such a manner, that the slope of the rising or ascent can be entirely seen and commanded, which is here the great object, and which will not be attained, if the troops were to adhere to a straight line.

To re-form, (Reformer, Fr.) is like wise to reduce a corps on the front, by either disbarring the whole, or only breaking a part, and retaining the rest; or sometimes by incorporating them with other re-forms.

Reformer, Fr. reduced.

Officer reformer, Fr. An officer put upon half-pay; or seconded against to the regulations of the old French service.

Reformed officer. One whose troop or company being broke, is continued on whole or half-pay. He preserves the right of seniority, and continues in the way of preferment.

Rouler, Fr. To ram down.

Rouloir, Fr. A cannon rammer.

Refugee, (Refugé, Fr.) See Emigrant.

To refuse. A military phrase, signifying to throw back, or to keep out of that regular alignment which is formed when troops are upon the point of engaging an enemy. This often occurs in order to occupy a particular position, to prevent the enemy's designs on any particular part of a line, or at least to make him take a greater detour to effect his purpose; or that he may be obliged to aim his own on a height which is occupied, and from which he may be flanked. When a first line has passed through a second, and it is found necessary to refuse a wing, the several platoons of that line must pass according to the wing which is to be refused. If the left, for instance, is to be posted, and the right to be refused, the platoons may pass from their left by the facing of the platoon to the left, and marching to the required position in succession; the column will thereby have its left in front, will be more easily directed on the point d'appui, and the preservation of the distances will be facilitated, as they will then be taken from the front. If the right is to be posted, the platoons may pass from their right; but the movement into echelon, and wheeling into line is preferable to any mode, as errors can always be remedied in an instant, and without confusion. It may happen where the passing line is to post one flank and refuse the other,

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that the officers will have their distances to take from behind, halt the whole at any
time after passing, and countermarch each
platoon, which will then cause the future
formation to be taken from the front of the
column.

A retiring line may also refuse a wing, by
forming a line very soon after passing, and
then taking up an oblique position to
the rear, by the echelon march, or some
other of the modes prescribed. See Amer.
Mil. Lib.

Frederic, surnamed the great, king of
Prussia, who had attentively studied the
tactics of the ancients, first adopted the
method of refusing a wing in the forming of
an attack. This method has since been
sincerely adopted by the best modern
military writers. It answers to a partial
reserve of a force which is always ready at
command, and which, by its being placed
on the right, secures the point of the line by
the reverse of what the French mean by
peler un aile, or expose a wing, or post it in a
precarious manner. The French during
the whole of the action which was fought
in Egypt, on the 21st of March, 1801,
refused their right wing. Notwithstanding
this precaution they were defeated by the
British.

A correct formation of the line by the
echelon march, whether it advance or
recede in the presence of an enemy, is
generally adopted, when it is found
necessary to refuse any part of a line, it will
not appear superfluous to submit the fol.
lowing mode which is practised by the
French.

Formation of the line by the echelon
march of divisions, by the covering serjeants or guides running out to mark the
point in the new alignment, for their respective divisions.

When the line changes position to the
front on a fixed flank company, by
throwing forward the rest of the battalion,
the commander having determined the new
line, and wheeled a given company into
that line, the number of paces (say 4)
remaining companies wheel two paces
on their right forward into echelon. The
guide or covering serjeant of the second
company instantly moves out, takes about
3-4th distance for his company, faces the
point of his company, faces the point
d'appui, and places himself in such a
manner as to cover the outside of the
right arm of the covering serjeant, who quits his ground, and briskly
starts while the point of his company faces
the outside of the left arm of his covering
compagny; he then gives the order
mark time, and dresses his men close to
the outside of the right arm of the covering
serjeant, and then gives the word halt. Take

care that the outward flank of his com-
pany does not shut out the distant point
of dressing; he then places himself on
the right of his division, covered by his ser-
jeant, who quits his ground and briskly
starts forward, the interval of the right
company square with the new line.
In forming line to the rear by the echelon
march, (suppose on a left company) the
same operation takes place with regard to
the covering serjeants running out, to mark
the points of dressing for the respective
divisions; but with this difference, that
stead of their taking only about 3-4th
distance, they are to take about one
given paces or less than the proper distance;
face the point of post, and are corrected
on the distant point, as before by a proper
person on the left. The commanders of
companies will, as soon as they see the
proper front rank of their companies touch
that part of the line already formed, give
the word mark time, front halt. Each
officer dresses the men of his company
at the marked time, until he brings them in
line with the outside of the left arm of his
covering serjeant; he then gives the order
mark time; taking post on the right of his company,
covered by the serjeant, who quits
his ground as before and gives the word
halt. It is to be observed, in order to
preserve the proper interval, on the covering ser-
jeant quitting his division to mark the
point in the true line, the officer's place
is to be immediately filled by a supernu-
merary or other man from the right, where
he is to remain till replaced by the officer,
covering serjeant.

It is likewise to be observed, that in
forming line to the front on a right
division, the dressing is close to, and on the
outside of the right arm of the covering
serjeant; and on forming the line forward
on a left company or division, the dress-
ing is close to, and on the outside of the left
arm. In forming line to the rear on a right
division, the dressing is on the right arm;
and in forming line to the rear on a left
division, the dressing is on the left arm of the
covering serjeant.
In forming line to the rear, the officers, or other persons appointed to correct the sergeants on the distant point of formation, move along in the rear and correct the sergeants, as they successively arrive to mark the points for their respective divisions.

By the foregoing method of sending out the covering sergeants or guides to mark the point in the new line for their respective companies, that inaccuracy of disposing which so often takes place when forming line to the front, and that very great confusion and incorrectness, which too frequently occur when forming to the present method, so, when the wheel into echelon is in any degree less than the one eighth of the circle or four paces, are entirely avoided.

REFUSER, Fr. For its application in a military sense, see To REFUSE.

REGAIN, Fr. This word is used among the French as a sea-phrase, viz, le vaisseau a refaire. The ship has missed the wind.

REGALE, Fr. to level or make even.

REGIE, Fr. government, administration.

REGIMENT, (Regiment, Fr.) a term applied to any body of troops, which, if cavalry, consists of one or more squadrons, commanded by a colonel; and, if infantry, of one or more battalions, each composed in the same manner. The squadrons in cavalry regiments are divided, sometimes into six, and sometimes into eight, nine, or ten troops. The battalions of infantry are generally divided into ten companies. There is not, however, any fixed rule on this head; as both cavalry and infantry regiments differ according to the exigencies of service in time of war, or the principles of economy in time of peace. The German regiments frequently consist of 2000 men; and the regiment of Picardy in the old French service had 600. The French formerly made a distinction between the commanding officer of a regiment of cavalry, and the commanding officer of a regiment of infantry. The former was styled Directeur de camp, the latter colonel as with us; but according to the establishment of the present regiment, the term of regiment is confined to the cavalry and artillery; and the name of half brigade is given to the former. So that chef de brigade, chief of brigade, corresponds with our colonel of a regiment of infantry. The denomination of colonel is again established in the French cavalry.

With respect to the derivation of the word, it appears, that the best etymology is from the French word Regie, management, which comes from the Latin regnum, to govern. Hence a regiment is said to be governed by a colonel. M. Beranger, a celebrated French etymologist, differs from this explanation. He traces it from the French regime, which signifies system, regimen, administration, and which is again derived from the Latin regime, bearing the same import. In a physical acceptance of the term, regime is used to express any body that is composed of several others, but this is mere conjecture on his part.

Regiments were first formed in France in the year 1558, and in England in the year 1560.

Domestic regiment, a corps raised by the French during their stay in Egypt. The men were recruited upon different principles. To quote the words of Mr. Moncrieff, in his account of a campaign with the Ottoman army in 1685, the dromedaries composing this troop are made to go through a number of evolutions, and when attacked, they are formed into a hollow square; they kneel, and by means of a cord which is thrown round one of the knees, they are prevented from getting up, and thus they afford a breast-work for the soldiers. The same authority observes in a note, page 59, that the most convenient and only way of travelling in Egypt is upon dromedaries. The traveller need not encumber himself with food for his animal, as a very scanty allowance of bread suffices for many days journey. Travellers ride upon convenient saddles; and the animal is so docile, that he is guided only by touching him with a small stick on the side that he is to turn. Some have a ring through each nostril, which serves as a bit to a bridle fastened to them. They walk very fast; and their trot is swift, but very inconvenient.

Cape regiment. We have already mentioned under the article Hottentots (which see) that a proposal had been delivered in to the British government to raise and discipline a certain number of the original inhabitants of the Cape of Good Hope. This proposal, after considerable delay, and much deliberation, was finally accepted; and a few days previous to the sudden cessation of war between England and France, Sir John Dalrymple many years ago proposed to the British government the raising of an African corps for the subjection of the West and East Indies, and South America.

Malays regiment, a corps which has been raised by the British on the islands and on the coasts of Malacca, for the specific purpose of doing duty in the island of Ceylon.

Regimental, any thing belonging to a regiment.

Regimental staff. See Staff.

Regimentals; the uniform clothing of the army; as a leather cap, coat, waistcoat, breeches, stockings, shoes, spats, spatshades, &c.
REGIMENTAL, See Court-Martial. See Bond. See PARADE. REGIMENTAL, belonging to a regiment.
REGIMENTAL orders. See Orders. REGIMENTAL, upholding, or exchanging; any com­mission, or sale articles called re11:imental necessaries, or who shall cause the color of the clothes to be changed, shall forfeit 5l. Soldiers selling or exchanging them, are liable to military punishment, &c.
REGIMENTAL receipts for forge, or service. Vouchers which must be produced by the contractors of an army to authorize them to have their claims discharged by the commissary general, or his deputies. It is sensibly observed in page 32 of the British commissary, that in every case there should, if possible, be only one voucher for one issue. The mode of accomplishing this must be simple, and it is adopted by those who certainly have most experience; for every German corps, or German officer, who draws forge, or any other article, from the commissariat, sends a mere receipt. This prevents further writing or trouble, because the receipt may be presented in the open field, and is itself a complete voucher. All that is required, is, for the regiment to order its forge party to bring back the receipt, if the quantity is not obtained; and the quarter-master, or foraging serjeant, to give a receipt for what he gets, if only paid in cash.
REGIR, Fr. to govern; to manage; to take charge of soldiers. REGLE, Fr. See RULE.
REGLEMENT, Fr. A trade wind. REGALMEN. See REGULATION.
REGRAMER, Fr. in architecture, to scrape the outside of a building. Among engravers this word signifies to scrape a plate.
REGULAR. In geometry, a regular body is a solid, whose surface is composed of regular and equal figures, and whose solid angles are all equal.
REGULAR attack, in a siege, are such as are made in form; that is, by regular approaches. See ATTACKS.
REGULAR, when applied to the army, signifies those troops that are enlisted for a regular period, do duty as soldiers and nothing else; contradistinguished from those who are citizens occasionally exercising the duties of soldiers; thus the militia are not ranked among the regulars, unless on actual service and well disciplined, and fit for any service. Hence reg far troops, or regulars.
REGULARS, (Trupen Regulaten, Fr.) Those troops whose conditions of enrollment are not limited to time or places; in contrast to fencibles, militia, or volunteer corps; called also the line.
To REGULATE, to adjust by rule or method.
REGULATING Battalion. See PARADE. REGULATION, the act of regulating, or adjusting by rule or method.
REGULATION, a term generally used in the British army to signify the regulated price at which any commission, or selling warrant is permitted to be disposed of. These prices have been fixed by the king. For particulars see Military Finance, page 160.
REGULATIONS, for the American army. There is no coherent or consistent system of regulations in existence for the military establishment of the United States. The economy of military arrangement is as essential as the discipline of the field, to assure the effects of military operations. There should be a well digested system of regulations, and upon that system should be engraved a staff, susceptible of adaptation to the peace or the war establishment, to the smallest or the largest force. The French have derived the greatest advantage from their regulations, which have been formed by a well digested body of principles adapted to all circumstances, and the enforcement and execution of which is always distinctly appropriated to the proper officers of the staff. At present the regulations of the United States army is confined to a few general orders from the war department, on detached points of service; and of occasional orders of the commander in chief, issued upon some exigency, at remote periods; and adopted into permanent use. In many instances these regulations have been altered by the war office, in others the circumstances which gave rise to them have ceased, and the regulations become obsolete or inappropriate. In 1810, an attempt was made, by the establishment of a quarter-master general's office, to commence something like a system; should this be accomplished it may be beneficial, though the want of information in the duties of a staff, particularly if those heretofore arranged under the quarter-master general's department alone are to be adopted, that it is to be feared the system may remain defective, should the old English model, now exploded by the British themselves, be kept in view instead of the more enlarged system introduced in modern wars. The treatise on the staff by Gilmour, contains the best body of regulations extant. It has been translated, and will form a part of the American Military Library.
The following are among the principal regulations in force at the beginning of the year 1810.

GENERAL ORDERS.
HEAD QUARTERS,
Fort Washington, May 27, '17.
To prevent the necessity of repetition,
to establish principle, without which there can be no permanent order, to define the rights of individuals, to exclude caprice, to promote economy, and precision, to disseminate an uniformity of duty and of service throughout the army, and to impress the necessary ideas of subordination and discipline, the following regulations have been devised, and must be duly respected by all ranks.

I. Precedence in command is attached to seniority of corps, and the oldest commission subject to such deviations as the commander in chief may deem essential to the national weal, and the point of honor is determined by the following gradations.

| 1. Guard of the president. |
| 2. The attack. |
| 3. Reconnoitering parties, and corps of observations. |
| 4. Foraging before the enemy. |
| 5. Posts in the enemy's country. |
| 7. Detachments and out posts. |
| 8. Guard of the trenches. |
| 9. Va guard to the front. |
| 10. Rear guards in retreat. |
| 12. Guard of the commander in chief. |
| 13. Guards of camp or garrison taken from the line. |
| 14. All other guards mounted from the grand parade. |
| 15. Guards of general officers, and the stuff according to rank. |
| 16. Pickets. |
| 17. General fatigue. |
| 18. Regimental police. |

Should a tour of service occur while an officer is on any subordinate duty, he shall be relieved, but the tour on which he was engaged shall pass to his credit. If an officer's tour for general court-martial, picket, or fatigue, occurs while he is on any other duty from the grand parade, he shall not be relieved, but is to stand for the next tour.

II. In all services by detachment, the corps are to furnish according to their strength, the longest of the first on; but in all cases of duty and of service where it may be found practicable, the troops are to operate by companies, battalions, or regiments.

III. Marching off the grand parade, or swearing in on general court-martial, is to pass for a tour of duty.

Commissions to detachments not to be excused from duty more than two days.

V. Police in conformity to the regulations of Baron de Stuben.

VI. Fatigues, general or particular, to be regulated by detail, and duty of every kind to be apportioned impartially.

A soldier, by voluntary compact, becomes the servant of the state, but not the slave of any individual. Extra men are never to be drawn from the ranks, but by permission of the commanding officer of a district, department, or regiment; and when employed in the service of officers, they are to be paid one third of a dollar per day, by the individual for whom they work. To abduct a soldier from his professional duties, and to subject him to the orders of persons not attached to the army, or to impose upon him menial laborious services, is an abuse of authority, a breach of contract, and a deep injury to the service; because it authorizes negligence in the soldier, and in effect destroys his arms and clothes. This practice is therefore positively prohibited.

VII. The annual clothing should be issued in the following manner.

In the Southern States.

On the first day of December, woollen overalls and vests, two shirts, two pair shoes, and two pair socks.

On the first day of April, the residue.

In the middle and Eastern States.

On the first day of November, woollen overalls and vests, two shirts, two pair shoes, and two pair socks.

On the first day of May, the residue.

Where circumstances will permit, it is to be drawn by the paymasters of corps, under the orders of the commanding officers, upon returns certified by the captains, or officers commanding companies, who are to receive it, and are to be held responsible for the distribution; extraordinary arrangements will be applied to extraordinary cases.

VIII. Company books and papers belong to the company, and are never to be separated from it, therefore whenever an officer is taken from his company, by promotion, transfer, or leave of absence, he is to deposit all the books and papers belonging to it, with the officer next of rank, taking duplicate receipts for the same, one of which is to be lodged with the paymaster of his corps; and wherever a man is transferred or ordered upon distant service, the commanding officer of the company from which he is taken, will be held responsible, that the date of his enlistment and a state of his accounts, as to pay, clothing, arms, ammunition, and accoutrements, be transmitted to the commanding officer of the corps, garrison, or detachment, to which he is to join; certificates of provision are always to accompany individual soldiers and non-commissioned officers commands, from post to post.

IX. Servants to be taken by voluntary consent from the regiment, corps, or detachment, to which the officer served may belong, in the following proportions, viz.

A lieutenant colonel commandant on duty, three, one without arms.

Major on duty, two, one without arms.

Captain commanding a post or battalion, two, one without arms.

Captain on ordinary duty, one with arms.

Subaltern on duty, one with arms.

Surgeon on duty, two.
Surgeon's mate, one, do Quartier-master general with the army, two.

Paymaster general two, one without arms.

The subordinate staff, at the discretion of the commanding officer.

The servants of platoon officers are always to accompany them on duty, and will be included in the same detail; no officer on furlough can be allowed more than one servant, and him without arms.

The residence of the regimental staff is at the seat of the commanding officer.

XI. Discharging for services fully performed, or on account of the company and regimental officers, as well as those returns of inspection are to be made out agreeably to the established form; these returns are to be regularly transmitted to the company in chief, under the eye of the commanding officer of companies, and the inspecting officer, who is the absence of the inspector, is to be appointed by the commanding officers of corps, posts, or detachments.

The s原型s of platoon officers are only, one without arms.

The residence of the regimental staff is at the head quarters of the regiment, except the surgeons mates, who are subject to be detached.

As we have no chaplain, the place of a chaplain is filled by a minister of the gospel, who is to minister to the spiritual wants of the army, for which purpose he is to be paid out of the public funds.

XXII. The use of cards and dice are strictly prohibited in camp or quarters, except for the use of backgammon.

XXIII. In military institutions, the force of example is inculcating, not officer, therefore, off duty, can be excused from parades, regimental or general, except in

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case of actual sickness or confinement; the officer who feigns sickness to evade duty, is a dishonor to his cloth, and will be held in infamy; and should any officer or non-commissioned officer, (be his command ever so diminutive;) betray such indolence and insensibility of professional obligation, as to omit one regular roll call, he shall be made an example to the army.

These orders are to be read to the troops, on the first day of the months of January, April, July, and October.

(Extract of General Orders.)

Head Quarters,
Lancaster, June 12, 1797,

To correct and extirpate the abuses which have crept into the service, is an herculean task, yet the commander in chief owes it to his own honor, to the honor of the army, and to his country, to effect a reform, and he calls upon his officers of every grade, for their co-operation in the arduous undertaking.

The spirit of cropping, which is almost everywhere to be seen, is repugnant to the principles of soldierly, destructive to the service, and disgraceful to those who indulge it; not less exceptionable is the practice of collecting and breeding live stock in large quantities.

The highest obligations of a soldier are to fight, and to die, but the principles and condition of the former are at utter variance with this solemn text; gentlemen in commission must reflect, that it is to them the private looks for example; the national bounty is expended not to improve the agricultural arts, but to instruct men in the use of arms; the hoe and plough must be laid aside, and every moment from professional duty, devoted to form, instruct, and to train them in the glorious science of war. It is for this noble purpose gentlemen receive the pay and subsistence of the public service, and disgraceful to those who abandon the service at his discretion, the general considers it his duty to correct a delusion so pregnant with mischief to the public interest, and so subversive of every principle of subordination and discipline; it is therefore to be clearly understood that no office, bearing a commission in the United States, has the power to resign the same, or quit the service without the president's permission, or that of some subordinate duly authorized, and all officers against this order are to be punished with rigor.

(Extract of General Orders.)

Head Quarters,
Washington, July 5, 1804.

The opinion having prevailed that an officer may throw up his commission and abandon the service at his discretion, the general considers it his duty to correct a delusion so pregnant with mischief to the public service, and of the regimental staff for the months of June and December annually, to be transmitted to the inspector of the army, at the city of Washington, on the first of January, and the first day of July following such musters, in the same manner that inspection and other returns are directed to be transmitted to him by the order of the 30th of November last; for the strict observance of which all commanding officers will be held responsible.

(End of General Orders.)

Head Quarters,
Northborough, Sept. 24, 1806.

To recover lost ground, and to revive the languishing principle of subordination, it is essential the little corps should recollect the rights and attributes of rank and commission; agreeably, therefore, to a standing rule, which can never be dispensed with, without prejudicing the service.

The general can hold no communication on a professional topic, except in cases of public or personal grievances, but through the commandant of the post; or commanding officers of corps; nor can these gentlemen receive any similar application from their subalterns, but through their respective captains.
(Extract of General Orders.)

Head Quarters, New Orleans, January 22, 1807.

It is deemed unnecessary to muster the troops every month, since it rarely happens that a payment is made for so short a period; the former custom directs that in future the several companies be mustered on the last day of February, April, June, August, October, and December, and that each muster comprise the casualties of two months.

(Extract of General Orders.)

Head Quarters, New Orleans, March 31, 1807.

The following regulations are to be considered of standing import, and are to be punctually observed until revoked.

All commanding officers are in person to command the daily parades of their respective garrisons, unless prevented by indisposition.

The troops are to be exercised once a week in battalion, and by companies twice a week when the weather may permit, without prejudice to the arms or the health of the men.

When a superior officer shall visit a post or garrison, it is the duty of the commanding officer immediately to wait upon him, and make a tender of the keys, returns, reports, regulations, and instructions relative to the said post or garrison, and receive his orders.

Quarter guards are not permitted in garrison, nor are guards of quarters allowed, except to the commanding officer, and those who are entitled to them by established regulations.

The guards are invariably to be exercised by the officer of the day, when the weather may permit, before they are marched off the grand parade for their posts.

Awkward recruits are to be drilled daily until perfected in the elements of their profession.

(General Orders.)

Head Quarters, New Orleans, April 15, 1807.

In all cases where men are discharged, the full complement of clothing to which they are entitled by law, is to be paid up out of the company stock.


The foregoing are true copies from the orderly books in this office.

A. Y. NICOLL,

Adjutant and Inspector.

BY THE DEPARTMENT OF WAR.

REGULATIONS to be observed in the allowances for barrack or quarters to the officers of the army, and in the delivery and distribution of fuel and straw to the garrisons on the sea coast and recruiting parties.

BARRACKS OR QUARTERS.

To the commanding general, for himself, four rooms and a kitchen.

To his aid, one room.

To the quarter-master general, three rooms and a kitchen, and two rooms for offices and clerks.

To each field officer, two rooms.

To the inspector of the army, one room in lieu of his allowance as a field officer.

To each captain, one room.

To each of the regimental staff, one room.

To a field officer, or a captain, when commanding a separate post, in addition, a kitchen.

To two subalterns, one room.

To every mess of eight officers, one room and a kitchen.

FUEL.

From the first day of October to the first day of April, in each year.

To the commanding general, two cords and one half of wood per month.

To the quarter-master general, two cords per month.

To the inspector of the army, two cords per month.

To each field officer, one and a half cord per month.

To every commanding officer of a garrison, one and a half cord per month.

To every officer commanding a recruiting party, one cord per month.

To every other commissioned officer, one cord per month.

To every room occupied as barracks by nine non-commissioned officers, musicians and privates, one cord per month.

To a garrison barrack guard, half cord per month.

To officers and soldiers half of the above-mentioned allowances of fuel from the first day of April until the first day of October in every year, but none for offices.

To the sick in hospital, the allowance of wood is to be regulated by the surgeon.

The commanding general, under special circumstances, may by orders in writing, enlarge or diminish the foregoing allowances of fuel, and may by the like orders, direct or withhold allowances of fuel or straw at such other posts as he may judge expedient, in cases not provided for by any special regulation.

No compensation in money to be made in lieu of allowances of fuel, nor any compensations to be received by or paid to officers, in lieu of quarters or barrack.

STRAW.

1. One truss of straw weighing thirty-six pounds, is allowed for each pallet for two men. At the expiration of sixteen days, each pallet is to be refreshed with
At the expiration of thirty two days, the whole straw is to be removed and a fresh bedding of one trunk to be furnished, and so on, every succeeding period of sixteen and thirty two days.

2. The same quantity of straw is allowed for servants or batmen not soldiers, and for washer-women attached to each company in the proportion of one washer-woman to every seventeen non-commissioned officers and privates.

3. The straw is to be changed for the sick in the hospital as often as may be deemed necessary: this necessity to be proved to the satisfaction of the garrison, or recruiting party.

No wood or straw shall be drawn for officers, or wood or straw for soldiers, whilst on furlough, or any allowance made for them for the same.

Whenever it shall appear that more wood or straw has been drawn than there were officers, soldiers, servants or batmen present and needed, the commanding officer signing such requisition, shall be held responsible for the value of the article drawn beyond the quantity allowed by these regulations, and shall have his name and the circumstances of the case reported to the secretary for the department of war.

Requisitions thus signed, and the vouchers given by the officers, to whom the articles are delivered for consumption, shall be produced as vouchers by the contractors, agents, or quarter-masters, in the settlement of his accounts.

As a smaller quantity of fuel may suffice for the garrisons and recruiting parties to the southward than ordered by these regulations, their commandants are enjoined to regulate the demands for this article by the nature of the climate.

Given at the war office of the United States in the city of Washington, this twenty eighth day of April, A. D. 1801.

HENRY DEARBORN,
Secretary of War.

Additional regulations relative to fuel.

At all posts, garrisons, or recruiting rendezvous, to the northward of the 30th degree of north latitude, should be allowed in addition to the present allowance of wood, from the first day of October, to the first day of April in each year;

To each field officer, half a cord per month.

To every commanding officer, of a garrison, consisting of one company, half a cord per month.

To every other commissioned officer, one third of a cord per month.

To every room occupied by eight men, half a cord per month.

To a garrison or quarter-guard, half a cord per month.

May 1, 1806.

Regulations respecting certain supplies and objects of special and extra expense.

The several contractors, besides raising including ardent spirits and vinegar, shall only provide and furnish quarters, transportation, forage, fuel, straw, and stationery, to recruiting parties where there is an appropriate officer of the quarter-master general's department to furnish the same. The quarters intended, are those of a temporary kind. The power to provide them shall not extend to the building or repairing of barracks. In what they furnish, they shall govern themselves exclusively by the regulations which have been established by law or by the war department, and in case which no regulations apply, by the orders of the particular commanding officer.

No repairs shall be made to any barracks or buildings which shall incur a disbursement of money exceeding fifty dollars, but by an order of the secretary of war. As often as any matter which may require any special or extra expense can wait without material injury to the service, for communication to, and the direction of the secretary of war, or the commandant of the army; it is not to be undertaken till after such communication and direction shall have been had.

The quarter-master general, his deputies and assistants, are primarily charged with making the disbursements in the cases above mentioned. When there is no such officer, the agent of the war department in the vicinity shall do it. All orders for such disbursements must be definite and in writing, to be transmitted with the accounts of them to the accountant of the war department; and all disbursements made in pursuance of these regulations must be substantiated by such vouchers as shall be prescribed by the said accountant.

Given at the war office of the United States in the city of Washington, this twenty eighth day of April, A. D. 1801.

HENRY DEARBORN,
Secretary of War.

Rules adopted by the president of the United States relative to promotions in the army.

Promotions in the army of the United States, shall hereafter be made agreeably to the regulations in force previous to those of the 3d of September 1799, which were
Regulations respecting salutes.

SALUTES from the forts in the several ports and harbors of the United States shall, as a general rule, be of sixteen discharges from a calibre not exceeding nine pounds.

No salute shall be fired to foreign ships or vessels of war in return; and in every such case, their salute shall be returned gun for gun.

Each military post within the United States may fire a national salute on the morning of the fourth of July, annually; and when there shall be a collection of citizens at, or within the immediate vicinity of a military post for the purpose of celebrating the anniversary of American Independence, sixteen guns may be fired in the course of the feast.

A national salute shall be fired on a visit to the post from the president or vice-president of the United States, or the governor of the state in which the post may be.

A gun not exceeding a six-pounder, should be fired daily at reveille, immediately after the break of day; after which, no officer or soldier should remain in bed.

Given at the war office of the United States in the city of Washington, this tenth day of June, A.D. 1804, and in the twenty-fifth year of American independence.

(Signed) HENRY DEARBORN, Secretary of war.

REGULATIONS respecting extra pay, and allowance of supplies, when ordered on constant labor, for a term not less than 40 days.

The non-commissioned officers and privates of the artillery or infantry who may be drawn as artificers, to work constantly on fortifications or bridges, for a term not less than 40 days, Sundays excepted, shall be allowed, for each day's actual labor, fourteen cents, and one gill of spirits each, in addition to their pay and rations, and one pair of linen overalls, and one frock; and if they shall be continued at work for 120 days, Sundays excepted, they shall each be allowed an additional frock, and an additional pair of overalls.

Other non-commissioned officers and privates, not artificers, who shall be drawn from the artillery and infantry for constant labor on fortifications, roads, or bridges, for a term not less than 40 days, Sundays excepted, shall be allowed for each day's actual labor, ten cents and one gill of spirits each, in addition to their pay and rations; and if they shall be continued at work for 120 days, an additional frock and pair of overalls in like manner as the artificers.

It shall be the duty of the officer commanding any such working party, to have a regular account, kept under his inspection of every day's work performed by each non-commissioned officer or private, signed by the commanding officer, and to transmit monthly a fair abstract thereof to the paymaster of the district in which the labor may be performed, which paymaster will be authorized to draw the money on the said abstracts, and pay them conformably therewith.

It is to be understood, that the extra daily pay and allowance, is only to be given for actual day's work, and not to be granted, when from sickness or other causes, the work shall not actually be performed.

(Signed) H. DEARBORN, Secretary of war.

War department, June 25, 1804.

The above regulations, so far as they respect allowances of extra clothing, are considered as being superseded by the act fixing the military peace establishment, which grants fatigue clothing to all the non-commissioned officers, musicians, and privates of that establishment, annually.

H. DEARBORN.

March 7, 1808.

The following rates are to govern in the allowance to officers for the transportation of their baggage, when ordered on distant command.

A colonel, 750 pounds.
Lieut. colonel, 600
Major, 500
Captain, 400
First lieutenant, 300
Second lieut., 250
Ensign, 250
Sergt., 500
Sergeant's mate, 300
Each officer to be allowed the usual and customary prices of transportation by land or water per hundred, on the route which shall be necessary for him to transport.
him, if and baggage, for as many hundred as he is entitled to the transportation of, by the regulations hereto annexed. An average price by land, will not exceed two dollars per hundred for five miles, and by water there are but few cases where a certain rate per cwt. is not known.

(Signed) H DEARBORN.

War department, June 23, 1801.

In addition to the foregoing regulations, there shall be allowed to each officer, when ordered on general courts-martial, at the rate of three dollars for every hundred miles, for the transportation of his baggage.

(Signed) H. D.

Oarrison, regulating and ascertaining the quantity of stationery which each officer, serving in the army of the United States, shall be entitled to receive annually.

To every officer commanding a separate post, the garrison of which shall consist of, from one to two companies, twenty quires of writing paper.

To every officer commanding a separate post, the garrison of which shall consist of, from three to five companies, thirty-six quires of writing paper.

To every officer commanding a separate post, one blank book containing two quires of paper.

For the use of the garrison of every separate post, ingredients sufficient to make two quarts of ink.

For the use of the garrison of every separate post, twenty four of nails.

For the use of the assistant military agent, at every separate post, one blank book containing two quires of paper.

For the use of every military company, whether in garrison or otherwise, two quires of paper, and one blank book containing the same quantity.

For the use of every other commissioned officer in the army, two quires of letter paper, with a proportionate allowance of ink, quills, and waters.

Done at the war office of the U.S., the 25th day of February, 1802.

H. DEARBORN,

Secretary of war.

Regulations relative to the employment of physicians.

In future, no surgeon, surgeon's mate, or physician, not holding an appointment in the army of the United States, is to be employed on public account, by any officer or person whatever to act in the capacity of surgeon or physician, for any man or men attached to the army, unless by special agreement first entered into, in which the compensation for medical service to be performed, shall be stipulated in writing, either by the day or month.

When the services required shall be such as to exceed the usual duties of a surgeon's mate, the compensation per month, should not exceed the pay and emoluments of a surgeon's mate.

For any number of men, not exceeding twenty, the compensation should not exceed the rate of two hundred dollars a year, including medicine; and for any number of men, not exceeding thirty, the compensation should not exceed the rate of three hundred dollars a year, including medicine.

In no instance, extraordinary cases excepted, should the compensation for medical assistance, for a shorter period than one month, exceed the rate of four dollars per day, exclusive of medicine.

Charges for medical services, after the promulgation of these regulations, will require certificates, of their having been performed agreeable thereto.

April 2, 1806.

Regulations relative to returns of clothing.

It shall be the duty of the commanding officers of companies, to make out in December each year correct returns of the clothing necessary for the respective companies for the succeeding year, including what is on hand fit for service; also correct returns of all clothing on hand, noting such as is fit for use; the said returns to be forwarded annually, by the 1st day of January, to the department of war, through the commanding officer of the military post, garrison, or encampment, at which the officer making the returns is stationed. The commanding officers of companies, shall be responsible for the correctness of their respective returns.

War department, Dec. 1, 1807.

Regulations to be observed by officers commanding detachments of the army to be embarked, and on ship board.

1. The officer commanding the embarkation, prior to the men's going on board, must personally inspect the transports, to ascertain that the quantity of provisions assigned, and every necessary accommodation is provided.

2. As soon as the troops are on board, an officer from each company will personally see, that the arms and accoutrements, the clothing neatly packed in the knapsacks, together with the hats, are to be placed in order, and properly secured, during the voyage, and are to be frequently inspected by the officers, to prevent their being injured by rust.

3. The men must be allotted to births, in the order in which they roll in their companies, and are to be divided into messes by squads, with a non-commissioned officer at the head of each, who is to be responsible for the good order and cleanliness of it, particular attention must be paid to the cooking, for which purpose two men must be detailed weekly from the company to attend to this duty, and it is essential that every other soldier...
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that part of a bridle which ex-
tends from the head of a horse to the hands of the rider, &c.

REINFORCE, in founding guns, that part of a gun next to the breech, which is made stronger than the rest of the piece, in order to resist the force of the powder. There are generally two in each piece, called the first and second reinforce: the second is something smaller than the first, upon the supposition that when the powder is inflamed, and occupies a greater space, its force is diminished, which is not the case. See CANNON.

REINFORCE RING. There are three in each gun, called the first, second, and third: they are flat mouldings, like flat iron hoops, placed at the breech end of the first and second reinforce, projecting from the rest of the metal by about 1/4 of an inch.

REINFORCEMENT TO THE ARMY, is an addition of fresh troops to strengthen an army, in order to enable it to go on with the first and second reinforce, projecting from the rest of the metal by about 1/4 of an inch. See CANNON.

To REJOIN. To meet again. To return. He left his regiment when it broke up camp, but rejoined it again before the army marched into the enemy's country.

REJOUSSANCES PUBLIJES, Fr. Public rejoicings, or thanksgivings. Chevalier Folard makes a curious and interesting comment relative to this subject, in one of his notes upon Polybius. He there-in asserts, that the Te Deum, or thanksgiving to God, was as much practised among the heathens as it is among the moderns.

REITRES, Fr. A body of armed horses, who came out of Germany, and entered into the French service during the reign of Henry III. They were incorporated with the carabineers.

RELAYER, Fr. To relieve; to lessen the labor of any particular set of men by occasionally sending fresh workmen.

RELALS, Fr. A term used in fortification to signify a space, containing some feet in breadth, which is between the foot of the rampart and the scarp of the fosse. It serves as a convenient receptacle for the earth that occasionally crumbles off.

RELAY horses, in the artillery, are spare horses that march with the artillery and baggage, ready to relieve others, or to assist in getting up a hill, or through bad roads, &c.

RELIEF. The commanding officer alone has the prerogative of releasing a prisoner from confinement, after he has once been duly given in charge to the guard, with his crime or crimes stated in writing; or of remitting after he has been adjudged to suffer military punishment; except in cases of a general court-martial, when the general of the district in certain cases, and the president of the United States in higher cases, can remit or mitigate. Cheval de RELAIS, Fr. Hackney horse.

RELEVEE, Fr. The afternoon.

RELEVER, Fr. To relieve. Hence, RELIEVER UNE SENTINELLE, Fr. To relieve a sentry, by posting another soldier in his room.

RELIEF. An order, given by the minister at war, to authorize an officer to receive the arrears of pay which had accumulated during his absence from the regiment.

RELIEF, Fr. In architecture means the same as the term does when used in English.

RELIEN, Fr. The broken grains of gunpowder which have not passed through the sieve.

To RELIEVE THE GUARD, is to put fresh men upon guard, which is generally done every 24 hours.

To RELIEVE THE TRENCHES, is to relieve the guard of the trenches, by appointing those for that duty, who have not been there before, or whose turn it is next.

To RELIEVE THE SENTRIES, is to put fresh men upon duty from the guard, which is generally done every two hours, by a corporal who attends the relief, to see the proper orders are delivered to the soldier who relieves.

RELIEVER, an iron ring fixed to a handle by means of a socket, so as to be at right angles to it: it serves to disengage the seizer of a gun, when one of its points is retained in a hole, and cannot be got out otherwise. See SEARCHER.

A REMAIN, a term used among store-keepers belonging to the board of ordnance, &c. to express the actual quantity of stores which is found at an outport, &c. when a new store-keeper is appointed.

REMAINS, of stores are ordered to be taken at all places at home, once in seven years, as also at the expiration of a war. In foreign parts a remain is taken only on the expiration of a new store-keeper. See OFFICE OF ORDNANCE, or BOARD OF ORDNANCE.

REMAND, to send back, as when a soldier who has been brought out of prison, or the guard-house, for the purpose of being examined or tried, is sent back without any thing final occurring relative to his case.

REMARK, to take note of any thing. REMARKS. Army returns, regimental statements, guard reports, &c. have a column allotted for remarks and observations relative to extraordinary occurrences.

REMBLAI, Fr. Earth collected together for the purpose of making a bank, &c.

REMBLAYER, Fr. To collect earth together.

REMBARQUER, Fr. To re-embark. REMBOITRE, Fr. The same as Embitter. To replace, to put together. The latter term is used by the French in artillery and cavalry manoeuvres. It is in the correlative to Déboiter; to break off.

REMETTEZ-VOUS, This term agrees
with the phrase—as you were. See Remonstr.

To take a former position, to return to the
original ground. Remettre, Fr. to restore, to bring
back again. It is frequently used in a military sense, viz. Remettre un bataillon; to restore or bring back a battalion to its
original formation.

Remit, To lessen; as to remit a part
of a soldier's sentence.

To remonstrate, to make a re-

presentation of a case or cases wherein one
or more may consider themselves to be

agrieved. Military men may remonstrate
through their superior officers; but where
the duty of the service is concerned, that
duty must be first performed with cheer-
fulness and fidelity.

Remonter, Fr. To Remount.

Remonter une compagnie de cavalerie, Fr.
To remount a troop of horses.

Remontée une rivière, Fr. To sail up
a river.

Remora, Fr. This word is some-
times written Rémore, and signifies obstruc-
tion, hindrance. It comes from the Latin
Remora, a small fish, which was supposed by
the ancients to impede the progress of or
market places, are very fit; but let the
place be where it will, the troops must
assemble with ease, and be ready for the
prompt execution of orders.

Remou, Fr. Surrendered, given up.

Soldat remou, F. This term is used
to express the difference between a soldier
who deserts to the enemy, and one who
lays down his arms. In the former in-
stance he is called déserteur; in the latter,
soldat rendu. It is sometimes used as a
substitute, viz. Un rendu, a man who
has surrendered.

Renegade, a deserter; any one

who goes over to the
enemy.

Renforcement, Fr. a hollow
place.

Renforcer, Fr. to reinforce, to
strengthen, to fortify.

Renfort, Fr. Reinforcement.

Renfort, A certain part of a can-
on so called. See remainder.

Reparations dans un regiment, Fr.
repair of arms, necessaries, camp equip-

age, &c.

To rendu remouler, Fr. To return,
to begin afresh. Hence to renew hostili-
ties.

Renouer, the act of renewing, as
the renewal of hostilities.

Remouer, Fr. Sending back any
thing returned.

Chevaux de remouer, Fr. Returned
horses.

Repartir, Fr. To divide, to se-
parate, to detach.

Reparations des troupes, Fr. Distrib-
ution of troops in different quarters.

Repettoire Sec. Magazine.

Replier, or replier, Fr. To fall
back, to retreat. In military movements,
to take a rear direction towards any particu-
lar part of the line, viz.
Replies. To fall back upon the right.

Reply. After the prisoner's defence before a court-martial, the prosecutor or informer may reply, but without noticing any matter for trial in the specific crime or crimes expressed in the charge.

Report. Sound, loud noise, as that made by the discharge of a musket or cannon.

Report. Specifying statement of persons and things. Although this word may, in some sense, be considered the same as report, ye is so far different in military matters, that it is less comprehensible and relates more immediately to persons and occurrences than to things.

General officers report to the commander-in-chief only.
The commander in chief's guard reports to himself by one of his aid-de-camps.

Reports of cavalry are given to the senior general officers of infantry. On a march the field office of the picket reports to the general of the day who leads the column; and in camp to the next superior officer to himself. A provost martial gives in his return of prisoners, and reports to the general of the day.

Judge advocates, in the districts or garrisons, &c. send in the minutes of court-martial, and report to the district general. Regimental surgeons report to their commanding officers, and surgeons in districts, &c. to the war office.

Identity Report. Every company in the service of the United States, is required to make a monthly inspection and return, according to forms furnished by the adjutant and inspector.

All troops belonging to the British service, the marines excepted, whose report to the admiral, report through their several commanding officers, &c. to the adjutant general and secretary at war, and to the commander in chief.

Special Report. A special report is said to be made when the name of an officer is transmitted by his commander to the general of a district, independent of the regular returns; and some specific instance of misconduct is laid before him; every officer on his arrival from abroad with a regiment or detachment of troops, must report himself to the governor or commanding officer of the seaport at which he arrives; and every officer who takes his passage for a foreign service, and every officer must do the same previous to his departure.

The senior officer in each recruiting quarter reports weekly to the field officer of the district, the number and strength of the parties therein. The field officers commanding recruiting parties in districts, report to the adjutant and inspector, to whom all returns and reports are to be transmitted by them, and not direct from the recruiting officers.

Reports are made daily, weekly, or monthly, according to circumstances.

The various subordinate reports consist of

Report of a rear guard.
Report of a barrack guard.
Report of a quarter guard.
Report of a main guard and its dependencies, &c. &c.

In the column of remarks which must accompany each of these reports, it is necessary, for persons who are required to certify all casualities and extraordinary occurrences according to the particular nature of each report. The slightest hours at which the grand rounds, visiting patrols, and patroles went, must likewise be put down.

Repos, Fr. Rest, ease. It is used by the French as a word of command, viz.

Repos, Fr. A word of command which agrees with stand at ease.

Quarriers de Repos, Fr. The places are so called where troops remain for some days to refresh themselves.

Soldat Repos sur l'arme. Fr. A soldier standing at ease with ordered arms.

Repos, Fr. Voir ses armes. Fr. Order arms.

In Repos, en repos, Fr. This term, which is manifestly taken from the French, applies to troops that are allowed to be stationary for any given period during an active campaign either through sickness, or from some other cause. Thus the 8th regiment being in repos, it was judged expedient to order the 8th to advance by forced marches.

Repository. A place or repository, in which anything is preserved. Thus the British Repository at Woolwich contains models of every sort of warlike stores, weapons, and fortifications: whether invented by officers of the army pecuniarily, as well as other nations as of Britain, receipts being given to preserve the title to the inventor. The British Repository is indebted to the ingenuity of Colonel Conrave, for some of its most useful and important instruments of escalade, fortification, and gunnery.

Reposser, Fr. To drive back, to repel.

Reposoirs, Fr. Drivers, chutes.

Reposoir, Fr. A small stick which artificers and fire-workers use in making fire pots and other works.

Repriences, Fr. Repriences.

Repriand. A lighter kind of punishment sometimes inflicted on officers and non-commissioned officers. It consists in reproving or remonstrating them at the head of their respective regiments, troop, or company, as the cases may be. A reproach is sometimes inserted in the order of battle.

Requisition, requisition, Fr. A term peculiarly used by the French during the course of their revolution, and applicable to most nations in its general import.
It reaches the act of exacting either men or things for the public service. Hence-

"Deereis, marchandises mises en requisition; necessary of life, wood, &c. put in a state of requisition, or subject to be disposed of for the common good at a fixed price.

"Fraçons gens de la Réquisition," Fr. Young men required or called upon to serve in the army.

"REQUISITIONNAIRE," Fr. A person liable to be put in a state of requisition.

"RESERVE, corps de réserve," Fr. Any select body of troops posted by a general out of the first line of action, to answer some specific or critical purpose, in the day of battle. The French likewise call that body a corps de réserve, which is composed of the tail of the army, and moves with the commander in chief, from whom it receives the parole or word; but in every other respect it is governed in a special manner, to the general out of the district, by whom he is returned absent without leave.

"RESTANT," Fr. Of absence, and has not sent a satisfactory account of himself to his commanding officer, the latter reports him, in an especial manner, to the general of the district, by whom he is judged absent without leave. It sometimes happens, that the colonel or commanding officer gives directions to have him noted on the muster-roll of the regiment; in which case he is said to be respited or deprived of pay — This is the first step towards suspension from rank and pay, which ultimately terminates in a total exclusion from the service, by the offending party being peremptorily superseded. The name of the person is laid before the secretary at war, who with the approbation of the president, directs the adjutant and inspector to strike it off the list of the army.

"RESTER, corps de réserve," Fr. Young men required or called upon to serve in the army.

"REVERSE," Fr. A select body of troops posted in the last shift.

"REVENUE," Fr. The income of the crown. The French know it as Colonels of regiments are responsible for the discipline of their men; and captains for the stores economy and clothing of their companies.

"RESPONSIBILITY," The state of being answerable. All public officers, civil or military, are in a state of responsibility with respect to national concerns.

"RESPONSIBLE," Answerable; accountable; liable to be called upon. Colonels of regiments are responsible for the discipline of their men; and captains for the stores economy and clothing of their companies.

"RESPOND," Fr. A term used by the French. In military orders signifying the same as charge or obedience, charge or service. Thus each commander pays a certain sum, called prime de réponse, to its order in proportion to its value.

"RESPONDER, to whom in to confine. Un homme fort resserré, a garrison narrowly watched by a besetting army, and kept within its walls.

"RESORT, Fr. Spring. Elasticity. This word is used in various senses by the French, viz. Derrier Ressort, Fr. the last shift. N'oublie que par ressort, Fr. To do nothing out of one's own will; to be influenced, to be acted upon by others. Manquer de ressort, Fr. To want means, vigour, &c. Un caractère qui a du ressort, Fr. A firm, at times character.

"RESOURCES, Fr. Resources, shift, refuge. Un homme de ressources, Fr. a man who has resources within himself. Un homme plein de ressources, a man full of resources, full of expedients.

"REST, arm, to bring the flank to the same position as in present arms. See Manual.

"Rest upon arms reversed. At military funeral the arms are reversed. The soldiers bowing to the firing party, rest upon the butt ends of their breechlocks, while the funeral service is performed, leaning with their cheeks, so as to turn from the corpse.

"RESTANT," Fr. Remainder; what is left.

"RESTE, Fr. Remainder, vit. Le reste des troupes, the remainder of the troops.

"RESTE," Fr. To be in arrest. RESTER, Fr. to remain behind.

"RETINER, Fr. Stoppage; any thing kept back.

"RETIARE, Fr. See Retiation,
RETIA, or Cunjura, Fr. In fortification, a reterchment, which is generally made with two faces, forming a retreat angle, and is thrown up in the body of a work for the use of receiving troops, as they may dispute the ground inch by inch. When the first means of resistance have been destroyed, others are substituted by cutting a ditch, and lining it with a parapet. The reterchment consists of nothing more than rows of fascines piled with earth, stuffed gabions, barrels or sand bags, with or without a ditch, and either fenced with palisadoes, or left without them.

Whenever it becomes absolutely necessary to quit the head or side of a work, the whole of it must, on no account, be abandoned. On the contrary, whilst some determined troops keep the enemy in check, others must be actively employed in throwing up refuges, which may flank each other, and in cutting a ditch in front. It is particularly incumbent upon the engineer officer to assist in works of this sort, and every officer and soldier should zealously co-operate with him. A slight knowledge of field fortification will on these occasions give a decided advantage. The body of a reterchment should be raised as high as possible, and several fascines should be laid beneath it, for the purpose of blowing up the ground on which the enemy may have established himself.

RETIRADE, or Cunjura, Fr. In fortification, a retreatment, which is generally made with two faces, forming a retreat angle, and is thrown up in the body of a work for the purpose of receiving troops, as they may dispute the ground inch by inch. When the first means of resistance have been destroyed, others are substituted by cutting a ditch, and lining it with a parapet. The reterchment consists of nothing more than rows of fascines piled with earth, stuffed gabions, barrels or sand bags, with or without a ditch, and either fenced with palisadoes, or left without them.

When the emperot Charles V. laid siege to Metz in 1551, the duke de Guise, who was governor of the town, instantly adopted the necessary precautions to defend it to the last. He built a new wall behind the one against which the principal attack was directed; and when the breach was made, the besiegers found themselves obstinately opposed, within a short space of the ground they had gained. In consequence of this unexpected check, the enemy's troops gave desist, and their want of confidence soon convinced the emperor that the place could not be taken. The siege was unexpectedly raised, and the preservation of the town was entirely owing to the wise precautions that had been adopted by the duke de Guise.

In 1742, marshal Broeolin, being closely besieged in the city of Prague, threw up refuges within the walls, and prepared to make a most vigorous resistance. An occasion, however presented itself, of which he took advantage, and which any further precautions were useless. He made a vigorous sortie and forced the enemy to raise the siege.

RETIRED List, a list on the British marine establishment upon which superannuated officers are placed.

Officers who retire in the East India company service. The India company have resolved, that an officer, in his military capacity, after twenty years actual service in India, coming to Europe on leave, will be allowed to retire on the pay of his rank, provided he signifies his intention of doing, within twenty months after his arrival. Officers on leave who are desirous of retiring, and who declare their intention to that effect, within twelve months from their arrival, will be permitted to retire on the pay of the rank they may be entitled to at the time of their appointment. An officer having completed 22 years actual residence in India, will be allowed to retire on the full pay of his rank, directly on his leaving India.

RETOURS de la mine, Fr. returns of a mine. See GALLEY.

RETours de la tranchée, Fr. returns of a trench. In fortification, the several windings and oblique deviations of a trench.
which are drawn, in some measure, parallel to the sides of the place attacked, in order to avoid being enfiladed, or having the enemy scour along the length of the line. On account of these devices returns are thrown up retrenchments of a considerable interval is opened between the head and the tail of the trench, which, were the lines directed, would not be at any great distance from each other.

**RETRAITE.** Fr. See Retreat.

**RETRAITE dans les montagnes.** Fr. The art of falling back or retreating among the mountains.

**FAIRE RETRAITE.** Fr. To retire, to fall back.

**Battre la RETRAITE.** Fr. To beat the tap-tap.

**Se battre en RETRAITE.** Fr. To maintain a retreat as a reverse or fight.

**RETRAITE, Fr.** Certain appoint­ments which were given during the French monarchy to infantry officers, when they retired from the active duties of their profession, to afford them means of support. The pensions which were settled upon cavalry officers were likewise distinguished by the same term.

**RETRAITE, Fr.** See Relais.

**RETRANCHEMENTS.** Fr. See Retrenchments.

**RETRANCHEMENTS particuliers qu'en fait sur la base des biêtres d'une place assi­gée.** Fr. Particular retrancements which are made in front of breaches that have been effected in the walls of a besieged town.

It is always necessary, that retrancements of this description should have the figures of rentrant angles, in order that they may not only flank the breaches, but be capable of defending themselves. A besieging enemy, seldom or ever, attempts a breach at the flanked angle of a bastion, because it must be seen by the two flanks of the neighboring bastions, and be perpetually exposed to the fire of the casemates of the town. Nevertheless, the breach must be actually effectuated, retrancements might be thrown up, in the same manner that horn-works are constructed, for the purpose of flanking it.

If the breach should be made in the face of the bastion, (which usually happens, because that quarter can be seen by the garrison from one side only) retrancements in the shape of rentrant angles must be constructed.

Breaches are seldom attempted at the angle of the epaulement, because that part of the bastion is the most solid and compact, and the most exposed to the fire from the curtain to that of the opposite flank, and to the reverse discharge, or fire from the rear. Add to this, that the storming party would be called in flank and rear, not only from the simple bastion, but likewise from the casemates. If, however, a breach should be effected in that quarter, it would become necessary to throw up retrancements of a salient and rentrant nature.

In constructing these different retrancements it must be an invariable rule, to get as near as possible to the parapets of the bastions and to their ruins, in order to batter those in flank and rear, which should attempt to escape, and at the same time be out of the reach of the besieger's ordnance.

When the head of the breach is so much laid open, that the besieger's cannon can scour all above it, small mines must be prepared beneath, and a retrancment be instantly thrown up in the body of the bastion.

**To RETREAT.** To make a retrograde movement. An army or body of men are said to retreat when they turn their backs upon the enemy, or are retiring from the ground they occupied: hence, every march in withdrawing from the enemy is called a retreat.

That retreat which is done in sight of an active enemy, who pursues with a superior force, is the one we particularly allude to in this place; being, with reason, looked upon as the glory of the profession. It is a manœuvre the most delicate, and fittest to display the prudence, genius, courage, and address, of an officer who commands: the records of all ages testify to this in place; being, with reason, looked upon as the glory of the profession. It is a manœuvre the most delicate, and fittest to display the prudence, genius, courage, and address, of an officer who commands: the records of all ages testify to this in place; being, with reason, looked upon as the glory of the profession. It is a manœuvre the most delicate, and fittest to display the prudence, genius, courage, and address, of an officer who commands: the records of all ages testify to this in place; being, with reason, looked upon as the glory of the profession.

It is done with the utmost deliberation, and a great deal of care and precision. The drums of all the guards are to be sounded at the head of the troops, and the trumpets at the same time sounding at the head of the respective troops. This is to warn the soldiers to forbear firing, and the sentinels to challenge till the break of day, when the reveille is beat. The retreat is likewise called setting the watch.

**Chequered RETREAT,** écartée en sché­ma tire et écartée. Fr. It is so called from the several component parts of a line or battalion, which alternately retreat and face in the presence of an enemy, exhibiting the fi-
gure of the chequered squares upon a chess board.

All manoeuvres of a corps retiring, are infinitely more difficult to be performed with order, than those in advancing. They must be more or less accomplished by chequered movements; one body by its numbers or position, facing and protecting the retreat of another; and if the enemy presses hard, the army must probably in time and await him: as the ground varies or favors, different parts of the corps must double; mouths of defiles and advantageous posts must be possessed; by degrees the different bodies retire from the line, a step or two, and throw themselves into column of march when it can be done with safety.

The retreat of a corps by the alternate battalions or half battalions of a line going to the rear, while the others remain halt and centered, and in their turn retire in the same manner, is the quickest mode of refusing a part of a corps to the enemy, and at the same time protecting its movement, as long as it continues to be made nearly parallel to the first position.

In the chequered retreat, the following rules must be observed: the battalions of the division nearest to the enemy, will form flanks as soon as there is nothing in their front to cover them; but the other divisions will not have any flanks except to the outward battalion of each. The battalions always pass by their proper intervals, and it is a rule in retiring, that the left of each shall always pass the right of the neighboring one. Whatever advantages the round offers, those advantages must be seized, without too critical an observance of intervals, or minute adherence to the determined distance of each retreating. The division next the enemy must pass in front, through the intervals of the division immediately behind, and any battalion that finds it necessary, must incline for that purpose. The retiring division must step out, and take up no more time than what is absolutely required to avoid confusion. The division nearest the enemy fires; the flanks of it, battalions only fire when the enemy attempts to push through the intervals. When that division fires it fires on, skirmishes by its riflemen, and if they have none, by men detached from the light companies, if any, or from platoons formed of rear rank men of one or two of the companies, and placed behind the flanks of the battalions. But should any of its battalions be obliged to retire, a shorter step must then be taken by the line; and should the enemy threaten to enter at any of its intervals, besides the given intervals, such platoons of the line behind it, as can with safety, must give it support.

RETREATMENT, in the art of war, is any work raised to cover a post, and fortify it against an enemy; such as bastions loaded with earth, gabions, barrels, &c, filled with earth, sand bags, and generally all things that can cover the men, and stop the enemy; but it is more applicable to a ditch before, with a parapet; and a post thus fortified, is called retrenched post, or strong post. Retrenchments are either on or out of particular.

General Retrenchments, are a kind of new defence made in a place besieged, to cover the defences, with the enemy becomes master of a lodgment on the first action, that they may be in a condition of retreating the ground inch by inch, and of putting a stop to the enemy's progress, in expectation of relief; so, if the besieger's attack a to-all of the place, which they yet yet ret. For, if, by the flanks of the enemy's attention, that, they may command the old works, and put the besieging in an absolute trouble in covering themselves.

Particular Retrenchments, or retrenchments within a line on (retrenched from an bastion, Fr.) Retrenchments of this description must reach from one flank to another, or from one caisson to another. It is only in full batters that retrenchments can be thrown up to advantage. In empty bastions you can only have recourse to retrades, or temporary barricades above the ramparts. The assailants may easily carry them by means of hand grenades, for those retrenchments never flank each other. It is necessary to raise a parapet about five or six feet thick before every retrenchment. It must be five feet high, and the ditches beside as deep as they can be made. There must also be small mines run out in various directions, for the purpose of blowing up the assailants should they attempt to force the retrenchments.

RETURNS, in a military sense, are of various sorts, but all tending to explain the state of the army, regiment, troop, or company; namely, how many capable of doing duty, on duty, sick in quarters, barracks, infirmary, or hospital; prisoners, absent with or without leave; total effective; wanting to complete the establishment, &c. See Regulations and Army, Med. Lib.

Returns of a mine, are the turnings and windings of the saltery leading to the mine. See Gallery.

Returns of a trench, the various turnings and windings which form the lines of the trench, and are, as near as they can be, made parallel to the line attacked, to avoid being inflated. These returns, when followed, make a long way from the end of the trench to the besieged, which going the straight way is very short: but then the men are exposed; yet, upon the saltpetre the cautious never consider the danger, but getting over the trench with such as
follow them, take the shortest way to
route the enemy, and cut off their re-
treat if possible.

Any officer who shall knowingly make
a false return to any his superior officer
authorised to call for such returns, shall,
upon being convicted thereof, be gen-
nerally court-martialed, be discharged.

Whoever shall be convicted of having
deceived, or through neglect, omitted
sending such returns, shall be punished
according to the nature of the offence by
the judgment of a general court-martial.

Commanding officer of regiments or
posts, are to transmit to the adjutant and
inspector an half yearly return of all
returns, reports, and papers, purely
of military and public nature, which
are to be sent to the war office of the
United States, are to be addressed, "To
the adjutant and inspector, Washington."

All official letters, intended for the
secretary at war, should be transmitted,
under covers, addressed as above, to the
adjutant and inspector.

To prevent an improper expense of
postage, all official letters and returns sent
to the adjutant and inspector, are to be
addressed, "To the adjutant and inspector, Washington," and
and on the outside of the covers is to be
written in legible characters, "public
service, and then the name and rank of
the writer."

RETURN. See PISTOL.
REVERSE. This term is some-
times used, but it is not technically cor-
rect, as the proper word of command is
unfix bayonets.

RETURN ammunition. See MANUAL.
RETURN swords. See SWORD.
REVERIE, is the beat of drum;
about break of day, to advertise the army
that it is day light, and that the soldiers
are to be out of their quarters.

REVERES, fr. Behind, in rear, at
the back of any thing.

REVE du de REVES, fr. To be over-
looked by a reverse commanding ground.

When a work, for instance, is command-
ed by some adjacent eminence, or has been
so badly disposed, that the enemy can see
its terres-plunges, or rampart, that work
may be said to be overlooked, être vu de
revés. The same term is applicable to a
trench when the fire of the besieged can
reach the troops that are stationed within
it.

REVERS de la tranchée, fr. Literally
means the back part of the trench. It is
the ground which corresponds with that
proportion of the border of the trench that
lies directly opposite to the parapet. One
or two barquettes are generally thrown up
in this quarter, in order that the trench
guard may make a stand upon the reverse
when it happens to be attacked by a sortie
of the enemy.
REVERSE. A contrary; an opposite; as, the reverse, or outward wheeling flank; which is opposite to the one wheeled to or upon. See Pivot.

Reverse likewise signifies on the back, or behind; so we say, a reverse commanding ground, a reverse battery, &c.

REVERSED arms. Arms are said to be reversed when the butts of the pieces are slung or held upwards.

Reversed, upside down; as arms reversed.

REVETEMENT, (revêtement, Fr.) in fortification, a strong wall, built on the outside of the rampart, a parapet, to support the men against the ground, and prevent its rolling into the ditch.

Revêtement du rampart, Fr. Revêtement de terrasse, Fr. Revetement du rempart, Fr. Revetement of the rampart.

REVETIR, Fr. To line, to cover, to fortify.

REVIEW, (revue, Fr.) In the military acquisition of the term, an inspection of the appearance, and regular disposition of a body of troops, assembled for that purpose, is called a review.

At all reviews, the officers should be properly armed, ready in their exercise, salute well, in good time, and with a good air; their uniform general, &c. The men should be clean and well dressed; their accoutrements well put on; very well sized in the ranks; the serjeants expert in their duty, drummers perfect in their beating, &c. The officers should be perfect in their exercise and prolong well. See Movements, likewise inspection.

To REVISE, (revue, Fr.) To review; to re-examine; to re-consider. This term is used in military matters, which relate to the proceedings of a general or regimental court-martial. It sometimes happens that the members are directed to re-assemble for the purpose of reviewing part of the whole mass of the evidence that has been brought before them, and of maturely weighing after the substance of the proofs upon which they have formed their opinion and judgment. Great delicacy and discretion are required in those who have authority to order a revision of this sort. A court-martial ought to be the most independent of all earthly, interest, prejudice, or partiality, has no business with its precincts. An honest regard to truth, a sense of the necessity of good order and discipline, and a stubborn adherence to facts, constitute the code of military laws and statutes. Quips, quibbles, and evasions, are as foreign to the genuine spirit of martial jurisdiction, as rancor, malice, and resolute perseverance in uttering what he knows to be the fact, are familiar to the real soldier.

REVOCABLE, (révocable, Fr.) That may be recalled. Nominations for appointments in the army, are made by the president of the United States, subject to the concurrence of the Senate, who, if they disagree, revoke the appointment.

REVOLT, (révolte, Fr.) Mutiny; insurrection.

REVOLTER, One who rises against lawful authority; a deserter, &c.

REVOLTES, Fr. Rebels.

REVOLUTION, (révolution, Fr.) A change in government, as the throwing off the tyranny of Britain, by the declaration of independence, in 1776, and as the French revolution.

REVOLUTIONNAIRE, Fr. A friend to the revolution.

REVOLUTIONNAIRE, Fr. An adjective of two kinds Any thing belonging to the revolution. Hoc Armee Revolutionnaire. A revolutionary army; such as appeare in France.

REVOLUTIONNER, Fr. To revolutionize. To propagate principles in a country which are subversive of its existing government.

REWARD, (rémunération, Fr.) A recompense given for good service. Twenty shillings are allowed by the minister for apprehending deserters.

Military Rewards, (rémunérations militaires, Fr.) The original instances of military rewards are to be found in the Grecian and Roman histories. The ancients did not, however, at first compensate military merit in any other way than by erecting statues to the memory, or presenting them with triumphal crowns. The warriors of that age were more eager to deserve public applause by extraordinary feats of valor, by temperance and moral virtue, than to become rich at the expense of their country.

The services which individuals rendered were distinguished by the kind of statue that was erected, and its accompanying decorations, or by the materials and particular formation of the crowns that were presented.

In process of time, the state or civil government of a country, felt the propriety and justice of securing to its defenders something more substantial than mere show and unprofitable trophies. It was considered, that men who had exposed their lives, and had been wounded, or were grown infirm through age, &c ought to be above want, and not only to have those comforts which through their exertions millions were enjoying, but to be placed in an independent and honorable situation. The most celebrated of their warriors were consequently provided for at
the public expense, and they had regular claims made over to them, which were answered at the treasury. 

Triumphal honors were likewise reckoned among the military rewards which the ancients voted to their best generals. Fabius Maximus, Paul Emilius, Camillus, and the Scipios were satisfied with this recognition for their services. With respect to old infirm soldiers, who were invalided, they were provided for by re-occasional grants of a lot of ground, which they cultivated and improved. Lands, thus appropriated, formed part of the republican or national domains, or were divided amongst them in the conquered countries. 

The Roman officer was rewarded for his services, for particular acts of bravery, in three ways: 1st. By marks of honor or distinction, which consisted of two sorts, which was merely ornamental to their own persons, or limited to the vestiture for life; and of that which may be called remuneration, such as statues, &c. The latter descended to their posterity, and gave their families a certain rank in the republic, 2dly. By pensions or allowances, and 3dly, By a grant of lands which exceeded the lots given to private soldiers. These lands, the property of the Roman soldier, in process of time became objects of solicitude among the Patriotics and rich men; they encroached upon them, and often excited foreign wars, in order to take away the citizeens, and in their absence, engross their lands; they generally held up as a reproach to the injured and not to the oppressors, and the people in republics have been held forth as turbulent and insatiable to personal property, because the people of Rome sought to recover the lands of which they had been despoiled by the avarice of the senate, and by an indurate spirit of speculation. 

The Franks, who got possession of the country which was formerly occupied by the Gauls, had, at first, no other method of recompensing their generals than by giving them a certain proportion of land. This grant did not exceed their natural lives, and sometimes it was limited to the time they rema ined in the service. 

These usages insensibly changed, and by degrees it became customary for the children of such men as had received grants of national territory, to continue to enjoy them; upon condition, however, that the actual possessors of such lands should be liable to military service, or were employed in the army. Hence the origin of fiefs in France, and the consequent appellation of milice des fiefs, or militia, composed of men who held their lands on condition of bearing arms when called upon. The French armies were for many years constituted in this manner; and the custom of rendering military service in consideration of land tenure, only ceased under Charles the VIth. 

In process of time, those lands which had been originally bestowed upon men of military merit, descended to their children, and were gradually lost in the aggregate mass of inheritable property. Other means were consequently to be resorted to by the state, in order to satisfy the just claims of deserving officers and soldiers. The French, therefore, returned to the ancient custom of the Romans, and rewarded those, who distinguished themselves in war, by honorary marks of distinction. Under the first race of French kings, claims of deserving officers and soldiers may be found several instances of men of distinction, which consisted of two sorts, viz. Of that which was merely commemorative, such as statues, &c. The latter descended to their children of such men as had received grants of land. 

This mode of rewarding individuals for great actions or long services, continued until men enlisted themselves for money, and the army was regularly paid, according to the several ranks of those who composed it. At this period, however, it became expedient to have recourse to the second method which was adopted by the Romans to compensate individuals for services rendered to the state. The royal treasury was either subjected to the annual claims of individuals, or to the pay set out of a specific sum, for having eminently distinguished themselves under arms. Notwithstanding this, honorary marks continued to be given, and the knighthood conferred in the field by the kiss or salute of a general, which the French style acclama, was practised until the 16th century. It was usual, even during that century, to reward a soldier, who did a brave action, by some mark of distinction, that was given on the spot; by a crown made of grass or other verdure, which was placed upon his head by his comrades, or by a gold ring, which his commanding officer put upon his finger in the presence of the whole troop or company to which he belonged. It sometimes happened, as in the reign of Francis the first, that this mark of distinction was given by the general of the army. Several brave men have been distinguished with titles of nobility and armorial bearings, which were conferred by princes, in consequence of some singular feat or exploit. There have been instan-
sations. The moderns, particularly the in person, a soldier of merit was peculiarly honored by Louis the XIVth, for bravery and good conduct in the field. That monarch took the collar of a military order off his own neck, and placed it round the neck of Launay Morvanier, as a reward for great prowess and intrepidity.

Besides the graminous crown and gold ring, which were thus given as marks of honor and distinction, the private soldiers were frequently rewarded by small sums of money when they performed any particular feat of bravery. They were likewise promoted from the ranks, and made sergeants or corporals.

Honorary rewards and compensations for service were not confined to individual officers and soldiers. Whole corps were frequently distinguished in the same manner. When several corps acted together, and one amongst them gave signal proofs of gallantry and good conduct, that one frequently took precedence of the others in rank, or was selected by the sovereign to be his personal guard. Sometimes, indeed, the king placed himself at the head of such a corps on the day of battle, thus evincing his approbation of their conduct, and giving a proof of his confidence in their bravery.

It is now usual, in most countries, to confer marks of distinction on those corps, that have formed part of any army that has signaled itself. Thus the kettle drums, under the appellation of nacaires, were given to some regiments, as proofs of their having behaved gallantly on trying occasions.

The military order of St. Louis, which was created by Louis the XIVth in 1693, and that of Maria Theresa. The modern French Legion of Honor, instituted by Bonaparte, adopts and organizes into a most influential and comprehensive military and political system, all the usages of pre-existing military orders; and fixes degrees of rank under various denominations, those thus decorated are preferred for other trusts and honors. There are many other orders in different countries, were only instituted for the purpose of rewarding military merit. The Greeks and Romans satisfied themselves with honor, rewards, or occasional compensations. The moderns, particularly the French and English, have placed military claims upon a more solid footing. The gratitude of the public keeps pace with the sacrifices of individuals, and permanent provisions are made for those who are wounded or rendered infirm in the service.

The Athenians supported those who had been wounded in battle, and the Romans recompensed those that had served during a given period. The French kings reserved to themselves the privilege of providing for individuals who had been

mained in action, by giving them certain monastic allowances and lodging, &c. in the different convents of royal institution. Philip Augustus, king of France, first formed the design of building a college for soldiers who had been rendered infirm, or were grown old in the service. Louis, emulated the great, not only adopted the idea, but completed the plan in a grand and magnificent style. Charles the second, on his restoration to the crown of Great Britain, established Chelsea, and James the second added considerable improvements to this institution.

REZ, Fr. A preposition which signifies close to, adjoining, level with, Rez in a right line with the metal, a phrase used in pointing guns, to discriminate between the real and artificial point blank; it means on a level with the top of the base-ring and swell of the muzzle. As rez-pied, rez-terre. Dans les fortifications, rez-pied, rez-terre. To level the fortifications with the ground.

RIBAND, RBAUD, Fr. The ground floor.

This term properly means the surface of floor of any building which is even with the ground on which it is raised. It would be incorrect to say Rez-de-chaussee d'une cave, ou du premier etage d'une maison; the ground floor of a cellar, or of the first story of a house.

RHAGAON, Ind. The twelfth month which, in some respect, corresponds with February. It follows the month Magh, which agrees with January.

RHINELAND, a measure of twelve feet, used by all the Dutch engineers.

RHOMBUS, (Rhombe, Fr.) in geometry, an oblique angled parallelogram, or a quadrilateral figure whose sides are equal and parallel, but the angles unequal; two of the opposite ones being obtuse, and the other two acute.

RIBAND, RBAUD, Ruhom, Fr. This word is sometimes written Ribon. A narrow web of silk which is worn for ornament.

RIBAND cockade. The cockades which are given to recruits, and is commonly called the colors.

RIBAUTE, Fr. Irregular, noisy, ill-mannered. This term is likewise used as a substantive, viz.

Un Ribaute, Fr. A noisy, ill-mannered fellow. It is an old French word, which at present is seldom spoken in the polished circles of life. In former times, as late indeed as during the reign of Philip Augustus, king of France, it was current without carrying along with it any particular reproach or mark of infamy. The foot guards, who did duty at the palace, were generally called ribauds, from the looseness of their morals; which by degrees grew so very corrupt, that the term, (harmless perhaps at first) was insensibly applied to persons guilty of dishonorable acts. Hence pick-pockets, thieves, cheats, &c. were called ribauds.
On which account the provost of the hotel or town house in Paris, was popularly styled roi des ribauds, or provost of ribauds. This phrase prevailed until the reign of Charles the Vth.

Ribaud, Fr. adj. Likewise means lewd, debauched, &c. 

La femme Ribaud, a Fr. A licentious woman.

Ribaudquin, Fr. A wall-like machine or instrument, which the French anciently used. It was made in the form of a bow, containing twelve or fifteen feet in its curve, and was fixed upon the wall of a fortified town, for the purpose of casting out a prodigious javelin, which sometimes killed several men at once.

According to Monstrelet, a French writer, ribaudquin, or ribauderin, signified a sort of garment which was worn by the soldiers when they took the field.

Ribleurs, Fr. Vagabonds, debauched fellows that run about the streets, or spend their nights in disorderly houses. Soldiers who give themselves up to pillage &c. in war time, are likewise called ribleurs, by way of reproach.

Ribler, Fr. To ramble, &c. is formerly the verb, and ribleris, the act of rambling and the substantive. Both terms are now obsolete, except among the lower orders.

Riccopter, Fr. To ricochet, to batter or fire at a place with ricochet shots. The author of a very valuable work entitled, Essai General de Fortification, et d’Attaques et Defence des Places, observes in a note to page 80, vol. 1. that in strict analogy, we should say ricocheter. But use, which is above all rules, has made ricochet a technical term, whenever we speak of the ricochet of cannon shot.

Un floc Ricochet, Fr. The face of a fortification, which is fired at with ricochet shots.

Ricochet, literally means a bound, a leap, such as a flat piece of stone or slate made when it is thrown obliquely along the surface of a pool.

Ricochet, [ricochet, fr.] in gunnery, is when guns, howitzers, or mortars, are loaded with small charges, and elevated from five to twelve degrees, so that when fired over the parapet, the shot or shell rolls along the opposite rampart. It is called ricochet firing, and the batteries are likewise called ricochet-batteries. This method of firing out of mortars, was first tried in 1723, at the military school of Strasburgh, and with success. At the battle of Rosbach in 1757, the king of Prussia had several 6 inch mortars made with trunnions, and mounted on traveling carriages, which fired obliquely on the enemy’s lines, and amongst their horse, loaded with eight ounces of powder, and at an elevation of one degree fifteen minutes, which did great execution; for the shells rolling along the lines, with burning fuses, made the stoutest of the enemy not wait for their bursting. See Battery.

Ricochet firing is not confined to any particular charge or elevation; each must vary according to the distance and difference of level of the object to be fired at, and particularly of the spot on which it is intended the shot shall make the first bound. The smaller the angle is under which a shot is made to ricochet, the longer it will preserve its force and have effect, as it will sink much the less in the ground on which it bounds; and whose tenacity will of course present so much less resistance to its progress. In the ricochet of a fortification of any kind, the angle of elevation should seldom be less than 10°, to throw the shot over a parapet a little higher than the level of the battery. If the works should be of an extraordinary height, the piece must be removed to such situation, and have such charge, that it can attain its object at this elevation, or, at least under that of 13° or 14°, otherwise the shot will not ricochet, and the carriages will suffer very much. The first gun in a ricochet battery should be so placed as to sweep the whole length of the rampart of the enemy’s work, at 3 or 4 feet from the parapet, and the rest should form as small an angle with the parapet as possible. For this purpose the guns should be pointed about 4 fathoms from the face of the work towards the mortar. In the ricochet of ordnance in the field, the objects to be fired at being principally infantry and cavalry, the guns should seldom be elevated above 3 degrees; as with greater angles the ball would be apt to bound too high, and defeat the object intended. For ricochet practice, see the different pieces of ordnance, as Gun, Mortar, and Howitzer.

Batterie en Ricochet, Fr. To put a sufficient quantity of gunpowder in a piece of ordnance to carry the ball, with effect, into the works that are enfiladed. This sort of firing is generally practised along the whole extent of a face or flank. The celebrated marshal Vauban first invented the mode of firing ricochet shots. He tried the experiment at the siege of Ath, in 1679.

Batterie en rampart à Ricochet, Fr. To batter a rampart with ricochet shots.

Rideau is a rising ground, or eminence, commanding a plain, sometimes almost parallel to the works of a place: it is a great disadvantage to have rideaux near a fortification, which terminate on the counterscarp, especially when the enemy fire from afar: they not only command the place, but facilitate the enemy’s approaches.

Rider, in artillery carriages, a piece of wood somewhat higher than broad, the length equal to that of the body of the axle-tree, upon which the side pieces rest, in a four-wheel carriage, such as the ammunition waggon, block carriage, and scaling waggons.
Rouge Rider. See Rough.

Riding-Master. In the cavalry, an officer whose duty it is to instruct the officers and soldiers in the management of their horses.

To RIFLE, to plunder; to rob.

Rifle, the thread, ray, or line made in a rifled barrel. Rifled piece, a fire arm which has lines or exiguous canals within its barrel that run in a vic­icular direction, and are more or less nume­rous, or more indented, according to the fancy of the artificer. With respect to riflemen. It is, on the contrary, more convenient to have a man soldiered with an obsolete word, remarkably applied to the common practices of riflemen. It is, on the contrary, more conve­nient to have a man soldiered with an obsolete word, remark­ably applied to the common practices of riflemen. It is, on the contrary, more conve­nient to have a man soldiered with an obsolete word, remark­ably applied to the common practices of riflemen. It is, on the contrary, more conve­nient to have a man soldiered with an obsolete word, remark­ably applied to the common practices of riflemen. 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good order; raising or creating sedition, &c.

RIPOSTE, Fr. A parry and thrust. It likewise signifies in a figurative sense, a reply, a retort.

RIPOSTER, or RIPOSTER, Fr. In fencing, to parry and thrust.

RISBA, Fr. An independent corps of cavalry.

RISBALDAR, Ind. The commander of an independent corps of cavalry.

RIVER, Fr. Persons who inhabit the banks of rivers. By a regulation which was in force during the French monarchy, all persons, so situated, were obliged to leave a space 20 feet broad at least, between their houses or huts, and the bank, for the convenience of navigation. A set of men, called balliers, were paid to see this regulation strictly complied with.

RIVRAINS, Fr. The passage of a ford may be rendered impracticable by throwing whole trees in, by tables or platforms covered with nails, and by stakes. The two latter impediments are the most dangerous. But stakes are not easily fixed, and are consequently seldom used. When roads are embarrassed by these, it requires time and trouble to clear the road; and it is equally difficult to get rid of the inconvenience that arises when wells have been sunk. Whenever there is reason to apprehend such obstacles, it is always best to reach the ford at dusk. A good resource in such cases, is to collect a great number of empty casks or horseheads, and lay over them either platforms of boards or fascines of underwood and boards over them, upon which either cavalry or artillery may pass. Intervals sufficient for the passage of the water must be left. The banks should be lined with smiths to stay the passage; light guns and yaps might be employed upon suitable ground.

When the prince of Condé in 1567, resolved to cross the river Seine, the royalists who were on the opposite side, endeavored to prevent his passage by throwing quantities of maile or thick planks that were nailed together, iron hoops and water-cats into the ford. The Huguenots or Protestants, however, were not diverted from their purpose. Aubigné, a French writer, says, that on that occasion, they placed 400 arquebusiers upon the banks to protect the men that raked the ford.

This was certainly a singular method which was used to clear a ford, nor could it be done without much difficulty, and no inconsiderable share of danger. The chevalier Folard has proposed a much safer, and a much easier way, by means of grappling hooks, tied to long ropes, which might be thrown into the ford. Yet even in this case, observes the writer, the object could not be accomplished if the river were broad, unless the persons employed in the undertaking, be under the cover of so heavy a discharge of ordnance and musquet-y, that the enemy would not be able to interrupt them, even from an entrenched position on the opposite bank.

With respect to caltrops, the removal of them, when properly distributed at the bottom of a ford, must be attended with great difficulty; for they must render the passage absolutely impracticable, unless they were to sink very deep into the mud and sand, and thus become useless. The men that first enter are in this case the only persons incommoded, but the rest may follow without much hazard.

It sometimes happens, that the bottom of a stream or rivulet is firm and cravelt; when this occurs, the greatest precautions must be taken to escape the effects of caltrops, which would be extremely hurtful to any persons that might attempt to cross.
In order to obviate their mischievous consequences, and to render them in a manner useless, a good stock of hurdles must be provided. The soldiers will band these together and force them into the water, and then cover them with stones.

When one or two forts in a river are so situated, that several battalions cannot cross them upon one front, it is then highly prudent to throw a bridge over, either above or below the ford; for a swarm may intervene and render it otherwise impassable; and to which, you have the advantages of getting a greater number of troops over at once.

In order to effect a passage for his army over the Tiber, Cæsar gave directions that ditches, thirty feet broad, should be dug in such parts of the banks as might with ease receive the water out of the stream, and render it fordable. Having accomplished this object, he found no difficulty in reaching Perusia, who, being in the daily fear of wanting provisions and forage for his men, was on the eve of quitting his position and marching forth.

The passage of the Grancius by Alexander the great, is likewise mentioned in history, as an instance of bold enterprise. But however celebrated that act may be in ancient records, we shall not be partial to the moderns when we state, that the passage of the river Holowitz by Charles XII. of Sweden, was equally bold and well managed.

The passage of the Tagliamento by Bonaparte during his campaign in Italy, would be the most celebrated of modern times, had not the passage of the Danube in 1809, eclipsed all similar achievements by the magnitude of the difficulties to be overcome, and the astonishing success of the means by which they were overcome.

RIVET, a fastening pin clenched at both ends, so as to hold an intermediate substance with more firmness.

RIVETING-plates, in gun carriages, small square thin pieces of iron, through which the ends of the bolts pass, and are riveted upon them.

RIZAMEDAR, Ind. An officer commanding a small body of horse.

RO, Ind. In Indian music means quick.

ROBE-courte, Fr. literally means a short gown. Provost-marshal, under-bailiffs, vice-senechal, their lieutenants, and various other persons, occasionally employed in camps and garrisons, to assist the military in maintaining internal good order and discipline, were formerly called in France officiers de robe-courte.

ROC, Fr. A rock.

Roc de lance, Fr. In tournaments the wooden part of a lance is so called.

ROCHER, Fr. A rock.

Roches de feu, Fr. A solid composition, which gradually consumes when it has been ignited, but which emits a very broad and lively flame, and is not extinguished by water.

ROCKETS. Composition.

<table>
<thead>
<tr>
<th>Old proportion</th>
<th>New proportion</th>
<th>lb. oz.</th>
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<tbody>
<tr>
<td>Saltpetre</td>
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<td>0 4</td>
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<tr>
<td>Sulphur</td>
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<tr>
<td>Charcoal</td>
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Composition for the Stars.

| Mealed powder      | 0 lb. 8 oz.    | 0 lb. 8 oz. |
| Sulphur            | 2 0            | 2 0          |
| Antimony           | 3 0            | 3 0          |
| Long glass dissolved | 0 36        | 0 36         |
| Spirits of wine     | 1 pint         | 1 pint       |
| Vinegar             | 1 quart        | 1 quart      |

Composition for rain to burn uniforms, etc., is the same as the above for the rockets.

<table>
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<tr>
<th>Copper Ladles for filling Sky Rockets</th>
<th>Inch.</th>
<th>Pound.</th>
<th>2 Foure.</th>
<th>1 Pound.</th>
<th>1 Foure.</th>
<th>1 Quarter.</th>
<th>1 Eighth.</th>
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<tr>
<td>Diameters</td>
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ROD

ROLE

ROJOUR'S March. See March.

ROHILLAS, Ind. A tribe of Afghans inhabiting the country north of the Ganges, as far as Oude to the eastward.

ROI, Fr. King.

ROLombre, Fr. See KING AFRAME.

ROKON, Ind. Cash.

ROLE, Fr. A muster roll, state, or return. The word role is used among the French indiscriminately, to signify either the effective force of an army, or the actual quantity of stores and ammunition which the magazines contain.

To roll in duty, is when officers of the same rank take their turns upon duty pursuant to some established roster, as captains with captains, and subalterns with subalterns, and command according to the seniority of their commissions.

To roll. To continue one uniform beat of the drum, without variations, for a certain length of time. When a line is advancing in full front, or in echelons, for any considerable distance, the music of one regulating battalion may, at intervals, be permitted to play for a few seconds at a time, and the drums of the other battalions may be allowed occasionally to roll; drums, likewise roll when troops are advancing to the charge.

Long roll. A beat of drum by which troops are assembled at any particular spot of rendezvous or parade.

Muster-roll, is a return, given by the master-mate, on which are written the names of both officers and soldiers of the regiment, troop, or company, with their country, age, and service.

Squad roll. A list containing the names of each particular squad. Every non-commissioned officer and corporal, who is entrusted with the care and management of a squad, must have a roll of this kind.

Size roll. A list containing the names of all the men belonging to a troop or company, with the height or stature of each specifically marked. Every soldier keeps a correct size-roll, and every captain of a troop or company ought to have one likewise.

Roll-call. The calling over the names of the several men who compose any part of a military body. This necessary duty is done by the sergeants of companies morning and evening, in every well regulated corps. Hence morning roll-call, and evening roll-call. On critical occasions, and in services that require promptitude and exertion, frequent roll-calls should be made.

Roller. A small wheel placed at the root of the hammer of a gun, or pistol lock, in order to lessen the friction of its movement.

Roller. Likewise means a long piece of wood which is rounded and made taper to suit the regulated size of a military trail.

Roller. In surgery, a long and broad
luggage, usually made of linen cloth, for binding, surrounding, and containing the parts of the human body, and keeping them in their proper situation, thereby dispensing them to a state of health and restitution.

ROLLERS, are round pieces of wood of about nine inches diameter, and four feet long, used in moving pieces of artillery from one place to another.

ROMAINE, Fr. A steel-yard or balance for weighing things of various ligature, usually made of linen cloth, for horse- and pack-trains, &c. and divide the produce by 480 for the disposing them to a state of service. See also DRAG ROPE.

RONDEL, in fortification, a round tower, sometimes erected at the foot of a bastion.

RONDES, Fr. See Rounds. RONDE MAJOR, Fr. Town-major's round. So called from the town-major visiting the different quarters of a garrison during the night. This round, in some degree, corresponds with our grand round.

RONDES ROLLANTES, Fr. Rounds that are made by officers, serjeants, or corporals, over a certain part of the ramparts. These agree with our visiting rounds. The French say, qui va la? Who goes there? technically with us, Who comes there?

RONDE d'officier. Officer's round. CHemin des Rondes, Fr. A path marked out for the convenience of the rounds. RONDE de gouvernement, Fr. The governor's rounds.

The French method of ascertaining the nature of the several rounds is by challenging in the same manner that we do, viz. qui va la? Who comes there? This must be said sufficiently loud for the main guard to hear. He is instantly answered: ronde de gouvernment, governor's rounds; ronde de capitaine, captain's round, or grand round, and so on, according to the nature of the rounds. The sentry, who stands posted near the guard-house, after having cried out Demure la; stop there! and as we say, stop round; cries out again, Caporal, 6008

RONDE des officiers de picqueur, Fr. Piquet round.

RONDES cles les Turcs, Fr. See TURKISH ROUNDS.

RONDELLE, Fr. A small round shield, which was formerly used by light armed infantry. It likewise means a part of the carriage of a gun.

RONDELIERS, Fr. Soldiers who were armed with rondelles, or small wooden shields, covered with leather, and were called to order. See also DRAG ROPE.

ROPE. A cord; a string; a halter, a cable; a hawser.

Rose is always distinguished by its circumference: thus a two-inch rope has a rope of two inches in circumference. See also DRAG ROPE.

Multiply the square of the circumference in inches by the length in fathoms, and divide the product by 480 for the weight in cwt. See also DRAG ROPE.

ROPES, of various lengths and thickness, according to the use they are made for, such as drags for the gun, for the slung cart and wagon, &c.

Drag-Ropes, according to the old practice in the artillery, by which the soldiers pulled the guns backwards or forwards, both at practice and in an engagement, were of the following dimensions, viz.:—

For a 24-pounder, 53 feet long, with the loop-holes for the pegs included, and 54 inches in circumference; for 18 and 12-pounders, 48 feet long, and four inches in circumference; for 6 and 3-pounders, 39 feet long, and 7.5 inches in circumference; for 8-inch howitzers, 45 feet long, and 64 inches in circumference; for 8-inch howitzers, 48 feet long, and four inches in circumference; for all other howitzers, 53 feet long, and two inches in circumference.

These awkward and cumbersome ropes are now superseded by the more simple and powerful method, of the authors, which instead of drag ropes held each by several; there is attached a single strong rope, with a hook and belt to each of several artillerymen; the number of bronces is in proportion to the service. See B.R.E. and P.L.E. See Amer. Mil. Lib.

ROSETTE, Two small bunches of bands that are attached to the loops by which the voret of an officer is suspended to his breast. The color of the tied rope and the manner of tying the bands is in proportion to the rank of the officer. The French use the same word.

ROE.-ED. See NAILS.

ROSTER, in military affairs, is plug or table, by which the duty of officers, &c. in battles, is regulated.

ROOM. Space; extent of space.
or small. Any part of a building for the accommodation of individuals; as barrack room, orderly room; viz. the orderly room, mess room, guard room, soldier’s rooms, and stow-room, for the duty of the regiments.

ROOMS. In a military sense are those parts of a building or barrack which by specific instructions, the different barracks must provide, and furnish for the accommodation of the troops. A schedule was published by authority describes the number of rooms allowed in barracks for the commissioned, warrant, and non-commissioned officers, and private men, in the British service, to be as follows:

- Cavalry rooms. Field officers, each two rooms; captains, each one ditto; subalterns, staff, and quarter-masters, each one ditto; the sergeants of each troop of dragoons, and the corporals of each troop of horse, one ditto; eight rank and file, one ditto; officer’s mess, two ditto.
- Infantry rooms. Field officers, each two ditto; captains, each one ditto; two subalterns, one ditto; staff, each one ditto; twelve non-commissioned officers, and private men, one ditto; officer’s mess, two ditto; sergeant-major, and quarter-master, one ditto. When there are a sufficient number of rooms in a barracks, one may be allowed to each subaltern, and non-commissioned officers, and private men, signifying to face every sort of hardship.

ROUANNE, Fr. A concave iron instrument, which is used for the purpose of marking the hollow of a pump. It likewise signifies a mark. An auger. ROUANER, Fr. To bore; also to make cases.

ROUE, Fr. A licensed libertine. One whose principles of morality are considered as loose, but who is not sufficiently vitiated in his manners to be excluded from society. The French make a familiar use of the term, and do not affix any degree of stigma to it. They say, on the contrary, c’est un aimable roué; he is an agreeable gay fellow.

ROUE, Fr. Wheel.

ROUE de fos, Fr. An artificial fire-wheel. See SOLEIL Tournant.

ROUST, Fr. A small solid wheel made of steel, which was formerly fixed to the pans of blunderbuses and pistols, for the purpose of giving them off.

Arquebuses et Piottettes à Roust, Fr. Blunderbuses and pistols to which a small wheel was attached. These firearms are very little known; some, however, are still to be found in European arsenals, kept merely for curiosity.

ROUDES, boulet Rouges, Fr. Red-hot balls.

ROUGH Rider. A person who is indispensably necessary in every cavalry regiment. He is a sort of non-commissioned officer, and should always associate with the sergeants in preference to the private men.

Rough Riders are the assistants of the riding master, and one should always be appointed to each troop. The necessary qualifications for every Rough Rider (independently of a thorough knowledge of horsemanship) are activity, zeal, and good conduct.

Every rough rider must provide himself with a proper jacket for the riding school business, according to the pattern fixed upon in the regiment.

To ROUGH hooves, a word in familiar use among the dragoons to signify the act of breaking in horses, so as to adapt them to military purposes.

To ROUGH it, a cant word used among military men, signifying to face every sort of hardship.

ROULÉAUX, Fr. Round bundles of fascines which are tied together. They serve to cover men, when the works are pushed close to a besieged town, or to mask the head of a work.

ROULEMENS, Fr. The several rolls which are beat upon a drum, as preparations for exercises, &c.

ROULER, Fr. To be subject to a fixed roster according to rank and precedence. ROUNDER. From the French round, in military matters, a visitation; a personal attendance through a certain circuit of ground, to see if all is well. A round consists, in the ordinary way, of a detachment from the main-guard, of an officer or a non-commissioned officer and 6 men, who go round the rampart of a garrison, to listen if anything be stirring without the place, and to see that the sentinels be diligent upon their duty, and all in order. In strict garrisons the rounds go every half hour. The sentinels are to challenge at a distance, and to post their arms as the round passes. All guards turn out, challenge, exchange the parole, and present arms, &c.
Rounds, are ordinary and extraordinary. The ordinary rounds are three: the town major's round, the grand round, and the visiting round.

**Manner of going the Rounds.** When the town major goes his round, he comes to the main-guard, and demands a sergeant and four or six men to escort him to the next guard; and when it is dark, one of the men is to carry lanterns around.

As soon as the sentry at the guard perceives the round coming, he shall give notice to the guard, that they may be ready to turn out when ordered; and when the round is advanced within about 20 or 30 paces of the guard, he is to challenge briskly; and when he is answered by the guard, he immediately draws up the men in good order with shouldered arms, and the officer places himself at the head of it, with his sword drawn. He then orders the sergeant and four or six men to advance towards the round, and challenge the sergeant of the round to answer, town major's round; upon which the sergeant of the guard replies, advance, sergeant, with the parole! at the same time ordering his men to rest their arms. The sergeant of the round advances alone, and gives the sergeant of the guard the parole in his ear, that none else may hear it; during which period, the sergeant of the guard holds the point of his bayonet or sword at the officer's breast. The sergeant of the round then returns to his post, while the sergeant of the guard, leaving his men to keep the round from advancing, gives the parole to his officer. This being found right, the officer orders his sergeant to return to his men; says, advance, town major's round! and orders the guard to port their arms; upon which the sergeant of the guard orders his men to wheel back from the centre, and form a fan, through which the town major is to pass (the escort remaining where it was) and go up to the officer and give him the parole, laying his mouth to his ear. The officer holds the point of his sword at the town major's breast while he gives him the parole.

**Grand Rounds.** The rounds which are made by general officers, governors, commandants, or field officers. When there are no officers of the day on piquet, the main guard in garrison may go the grand rounds.

**Visiting Rounds.** Rounds gone by captains, subalterns, and the town majors of garrisons.

The grand rounds generally go at midnight; the visiting rounds at intermediate periods, between sunset and the reveille. The grand rounds receive the parole, and all other rounds give it to the guards.

There is also a species of subordinate rounds which are performed by a corporal and a file of men; and which are in reality nothing more than a parole round. When challenged they answer parole rounds.

The governor of a garrison can order the rounds to go, as often as he may judge expedient. Extraordinary rounds are reported to when any particular event or occurrence is expected, and in cases of tumult, &c.

The going the rounds, though generally considered among the inferior duties of military discipline, ought to be most scrupulously attended to.

**Turkish Rounds.** The Turks are in the habit of going the rounds like other nations, for the purpose of ascertaining, whether sentries are alert and vigilant on their posts. They call the rounds out, they start from the guard house, and the person who goes them has no other weapons of defence than a stick in his hand. He is accompanied by a corporal who carries a lantern. He observes whether at his approach the sentry instantly gives out, Jager Allah, which signifies God! If any sentry should be found asleep, or be backward in crying out Jager Allah, God! he is put in prison, and there severely bastinadoed. The Turks never give a parole or countersign, in camp or in garrison.

The design of rounds is not only to visit the guards, and keep the sentinels alert, but likewise to discover what passes in the outworks, and beyond them.

**Round Robin.** The term is a corruption of ruban round, which signifies a round ribbon. It was usual among French officers, when they signed a remonstrance, to write their names in a circular form, so that it was impossible to ascertain who signed first. Hence to sign a round robin against any person, is for any specified number of men to sign, one and all, a remonstrance against him. This usage has been perverted to the most seditious purposes of insubordination; and oftentimes should cause the immediate dismissal of every officer concerned.

**Round Parade.** See Parades.

**Round.** A term used to express lord, sir, master, worship.

**Rouse.** One of the bugle horn soundings for duty. It is derived from the German word which signifies to turn out.

**Route.** Confusion of an army or body of men defeated or dispersed.

**To Route, to put to the Route.** To defeat, to throw into confusion, &c.

**Route, (Route, Fr.) in military matters, an order to direct troops to march the road they are to take, and an authority to the magistrates to provide quarters for them.**

**Pas de Route, Fr. Stepping at ease, or marching with the least possible restraint.**
Marche Route, Fr. Route of march. The French use this term in contradistinction to marche manœuvre; march in manoeuvres.

ROUTIER, Fr. A ruffian. The French say figuratively c’est un vieur routier; he is an old ruffian.

ROUTINE, Fr. This word has been adopted by us in the same sense that it is familiarly used by the French. It signifies capacity, or the faculty of arranging; a certain method in business, civil or military, which is as much acquired by habit and practice as by regular study and rule. We say familiarly the routine of business.

RouPERIN, Fr. Brittle iron, such as easily breaks when it is committed to the forge.

RouWANNA, Ind. A passport or certificate from the collector of the customs; or any other passport.

ROYEL, The pointed part of a horseman’s spur, which is made in a circular form, with rays or points like a star. ROYANA, Ind. An Indian term expressive of great magnificence, resplendence.

ROY, Ind. A Hindoo name for an officer of the finances.

ROYAL, in fortification, a bank three or more issues broad, and six feet high, placed upon the brink of the rampart, towards the enemy: its use is to cover those who defend the rampart.

ROYAL academy. See ACADEMY.

ROYAL Military College. See SCHOOL.

ROYALS, in artillery, are a kind of small mortars, which carry a shell whose diameter is 5 1/2 inches. They are mounted on beds the same as other mortars.

ROZENDAR, Ind. A person holding a yearly pension.

ROZENADAR, Ind. One who receives an allowance daily.

ROZENAMA, Ind. A day-book.

ROUX, Ind. A division of the year, containing the months of October or 30 month, from the 11th of March to the 13th of April. Byuor 4th month, from the 11th of April to the 11th of May. Jeyor 5th month, Auor 6th month, from the 12th of June to the 13th of July. Juior 7th month, in some manner, agrees with July and August. Bandoon, or the same as Jeyor, from the 11th of May to the 12th of June. The other half of the year is called Kureef.

RUDIMENTS. The first principles, the elements of any particular science. Hence:

Rudiments of War. The first principles or elements of war; as marching, facing, wheeling; the drills, manual, and platoon exercises, manoeuvres, &c. &c.

RUE, Fr. Street.

RUFFLE. A term used among the drummers to signify a sort of vibrating sound, which is made upon a drum, and is less loud than the roll.

To beat a RUFFLE. To make a low vibrating noise upon the drum. It is generally practised in paying a military compliment to a general officer, and at military funerals.

In the British army a lieutenant-general is entitled to three ruffles. A major-general to two ruffles. A brigadier-general to one ruffle.

RUG, (couverture volée, Fr.) A coarse napery coverlet used for mean beds. Each set of bedding which is provided for regimental hospitals has one rug.

RULILLER, Fr. To establish marks for the purpose of rendering surfaces and planes correct.

RUINES, Fr. Literally signifies ruin. It is used by the French in a warlike sense.

Battle or RUINE, Fr. To defeat an enemy in such a manner as to destroy all means of taking the field again.

RUINES, Fr. Ruins.

RULE, in a general sense, government, sway, empire. In a more confined one, canon, precept, direction. Hence rules and regulations for the government of the army.

To RULE. To govern, to command.

RULE, Fr. An instrument by which lines are drawn.

RULES and Articles. Under this term may be considered the military code or laws of the United States, and the regulations issued by the War Office.

RULES and Regulations. See Regulations.

RUM, de vent, Fr. Point of the compass.

RUM, or Rum, Fr. The bold of a ship.

RUMOR, a desultory, loose report of what may, or may not be.

To spread false RUMORS, to circulate things without the foundation of reality. Reports, &c. are sometimes circulated by means of spies, deserters, &c. for the purpose of covering some particular design, or intended operation. Rumors of this kind should be cautiously listened to by the commanding officer of the army through which they are spread. It sometimes happens that individuals, through wantonness, or from some other motive, create alarms among their own people, by anticipating some looked for or dreaded event. This offence is not only punishable by the civil law, but, being contrary to good order and discipline, is rigidly so in every army. A singular circumstance of this kind occurred at Colchester, England, in 1797. During the alarm which universally prevailed at that time, especially along the coast of Essex, a serjeant belonging to a militia regiment, unwitingly, for it is not supposed he did it wittily, said in the hearing of some soldiers, that the French would dine at Ipswich on the Sunday following! This expression soon spread among the inhabitants of the place, and a formal complaint was made to the general of the district. The offender had...
ing originally belonged to the line, and bearing the best of characters, was so far considered, as not to be tried by a general court-martial; but, for the sake of example, he was ordered to be escorted to the church nearest to the coast, and on a Sunday to appear in the porch, and there ask pardon of the inhabitants for the alarm he had created.

To **run** the gantlet (that is the gauntlet) to undergo a punishment which has been allotted for considerable offences in some foreign countries. When a soldier is sentenced to run the gantlet, he is drawn out in two ranks facing each other: each soldier, having a switch in each hand, lashes the criminal as he runs along naked from the waist upward. While he runs, the drums beat at each end of the ranks. Sometimes he runs 3, 5, or 7 times, according to the nature of the offence. The major is on horseback, and takes care that each soldier strikes the culprit.

**R U N N I N G - f i r e.** See **F I R E.**

**Rupee,** a silver coin which varies in its value according to the part of India in which it is current. Rupees struck by the English, are generally worth half a dollar.

**Rupture,** a disease which disqualifies a man from being admitted as a soldier; but as some men are capable of producing and reducing a rupture with great ease, they should not be discharged in slight cases, as by the use of a truss they may be enabled to do duty for a long time.

**R U P T U R E.** This word also signifies the commencement of hostilities between any two or more powers.

**Ruse,** Fr. Cunning, trick, ingenuity. It is applied to military matters, and signifies stratagem.

**R u s e s ,** Fr. To make use of stratagems: *I est permis de ruser à la guerre;* it is lawful to make use of stratagems in war.

**R u s e s de guerre,** Fr. Stratagems of war. See **S t r a t a g e m s.**

**R u s s o d o t ,** Ind. A tribe of Hindoos, whose particular duty is the care of horses.

**R us su m d a r ,** Ind. A person deriving a particular perquisite.

**R u s t r e,** Fr. A lance so called, which was formerly used in tournaments.

**R u t t i e r ,** Fr. A direction of the road or course at sea.

**R y e t ,** Fr. A lance so called, which was formerly used in tournaments.

**R y e t o r R y e t L a n d s ,** Ind. Lands cleared out and cultivated by a tenant.

**R y e t or Ryet Lands,** Ind. Lands cleared out and cultivated by a tenant.

**S a b l e ,** Fr. Sand.

**S a b l o n i e r e or S a b l i e r e.** Any spot from which sand is drawn. It literally means a sand-pit.

**S a b o u r d ,** Fr. a port-hole.

**S a b r e ,** (Sabre, Fr.) a kind of sword, or scimitar, with a very broad and heavy blade, thick at the back, and of a shape elevated, or curved, but sharp at the point. It is generally worn by heavy cavalry and dragoons. The grenadiers, belonging to the whole of the French infantry, are likewise armed with sabres. The blade is not so long as that of a small sword, but it is nearly twice as broad. French hussars wear the curved sabre somewhat longer than those of the grenadiers. The broad straight sword is best adapted for infantry of every kind.

**S a b r e - t a u c h e,** From the German *sabel,* sabre, and *tasche,* pocket. An appointment or part of accoutrement of hussars, which consists of a pocket which is suspended from the sword-belt on the left side, by three slings to correspond with the belt. It is usually of a oblong shape, sloped at the bottom, with a device in the centre, and a broad lace round the edge. The color of it always corresponds with that of the uniform.

**S a b r e r ,** Fr. To cut to pieces.

**S a c d ' u r e v i l l e s ,** Fr. The storming and plunder of a town.

**M e t t r e u n v i l l e à S a c ,** Fr. To give a town up to the plunder of the soldiers.

**S a c ,** Fr. A bag.

**S a c à p o u d e r ,** Fr. A bag of gunpowder. These bags are frequently used in war, for the purpose of intimidating an enemy, and of setting fire to places. They are of different sizes and dimensions; some to be thrown by the hand, and others out of a mortar. A French work, intituled *le Bombardin Francais,* gives a full account of both.

**S a c à t e r r e ,** Fr. Sand-bags, or bags filled with earth.

**S a c à a m m e r ,** Fr. A small leather bag which is used for the purpose of carrying gunpowder to the different batteries to prime the pieces.

**S a c à t e n e ,** Fr. A bag made of or stuffed with wool and other soft materials. It is larger than a sand-bag. Every army should be provided with a certain quantity of these bags, in order to supply the want of soil on critical occasions.

**S a c h a s s e r ,** A knapsack. See **H a v r e s a c k.**

**C u l d e S a c ,** Fr. A street or passage that has no outlet.

**S a c c a d e ,** Fr. In the manege, a violent check or jirk, which the horseman gives his horse by drawing both the reins very suddenly. This is practised when the horse bears too heavy on the
hand; but it ought to be done with great caution, as the frequency of it must eventually spoil the horse's mouth.

**SACHET, Fr.** A pouch. It likewise signifies a bag in the diminutivel sense. A satchel.

**SACHETS de ballas de plombs, Fr.** Bags of bullets.

**SACKS.** See BAGS.

**SACRE, Fr.** A name formerly given to pieces of ordnance that carried balls of 4 to 5½ lb weight. Each piece weighed from two thousand five hundred to two thousand eight hundred pounds. The same as Saker.

**SADDLE.** The seat which is put upon a horse for the accommodation of the rider.

**SAFFYNA, Ind.** A certificate or writing specifying any matter of dispute, which is found necessary to have settled or cleared up.

**SAFFIT, belonging to an arrow.**

**SAGITTARIUS, or SAGITTARY.** See Archer, Bowman.

**SAILODE.** A tree of the palm species. A flour is made from this tree, which forms into bread and fresh baked, eats like hot rolls; when it grows stale it becomes hard, and requires to be soaked in water before it can be used. Three of these trees will supply for one hundred for that period. Also a tree called *Sagittarius* or *Sagittary*, which is supposed to be the same as *Sailer*.

**SAILORS.** Men who sail or navigate ships.

**SALADE, Fr.** State of being venal; price. 

**SALE.** State of being venal; price. 

**SALIS, Ind.** A merchant.

**SALLIS.** An arbitrator.

**SALLIS, Ind.** An arbitrator.

**SALLY-port, or soto-puertas, as they are sometimes called, are those underground passages, which lead from the inner to the outward works; such as from the higher flank to the lower, to the tunnels, or the communication from the middle of the curtain to the ravelin. When they are constructed for the passage of men only, they are made without steps at the entrance and outlet. They are about six feet wide, and 8 t. 3 feet high. There is also a gutter or sewer made under the sally-ports that are in the middle of the curtain, in order that the water which runs down the streets may pass into the ditch; but this can only be done when they are wet ditches.
SALUT, Fr. The sword salute.

SALUTE, a discharge of artillery, or small arms, or both, in honor of some person; the men presenting their arms. The colors salute chief magistrates, and generally port, chief magistrates, and the men presenting their arms. The horse chestnut. In some natural caves discovered in Kentucky, vast quantities, sufficient for every demand of war and commerce can be procured. See Gunpowder, Nitre, &c.

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SALUTER, Fr. A particular Saltpetre, boxes, in artillery, are boxes of about four inches high, and 2 to 2 in diameter, for holding mealed powder, to sprinkle the fuzes of shells, that they may take fire from the blast of the powder in the chamber; but it has been found that the fuzes takes fire as well without this operation, so that these boxes are now laid aside.

SALUTE and SALUTER, Ind. A farrier.

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Trenches, Parallel.

SAPPERS, (Sappers, Fr.) are soldiers belonging to the sappers or engineers, whose business it is to work at the saps, and for which they have an extraordinary pay. A brigade of sappers generally consists of eight men, divided equally into two parties. Whilst one of these parties is advancing the sap, the other is furnishing the gabions, fascines, and other necessary implements; they relieve each other alternately.

SARACENS, the Pike.

SAROT, Fr. A sort of frock which was worn by the drivers of mules, and other persons employed in the French armies.

SARRAZINE, Fr. See Herse.

SARAT. The breaking up or ending of the rains, is so called in India.

SASSE, led. The moon.

SASSI. A mark of distinction, generally made of crimson silk for the officers, and of crimson mixed with white cotton for the serjeants. It is worn round the waist. Sashes are erroneously said to have been invented for the convenience and ease of wounded officers, in case any of them were so badly wounded, as to render them incapable of remaining at their posts, they might be carried off with the assistance of two men; but though they may have been so used, they are only an ancient remnant of military ornament, and correspond with the kampfer.

Bound, worn by all Asiatics even to this day; they are of considerable use to the soldier during fatigue or marches; and the "girding up the loins," as noted in scripture, would be found not an unwise practice for the soldier in action. The American cavalry tie the sash on the left; the infantry on the right side. The sashes for the Austrian army are of crimson and gold; the Prussian army, black silk and silver; the Hanoverian were yellow silk; the Portuguese, crimson silk, with blue tassels. The modern French have their sashes made of three colors, viz. white, pink, and light blue, to correspond with the national flag.

SATELLITES, (Satellite, Fr.) A person who attends another, either for his safety, or to be ready to execute his pleasure.

SATELLITES, Fr. Certain armed men, of whom mention is made in the history of Philip Augustus, king of France. The word satellite itself, which we frequently find in ancient historians, signifies a guard or attendant about the person of a prince. It is derived from the Latin word satellite, which comes from the Syrian term for a companion. The satellites of Philip Augustus were men selected from the militia of the country, who fought on foot and horseback.

The servants or batman who attended the military knights when they went into action, were likewise called satelites, and fought in their defence mounted or on foot.

SATISFACTION. When an officer or other person goes out to fight a duel with one whom he has offended, or by whom he has been offended, he is said to desire satisfaction.

SAUCISSE, in mining, is a long pipe or bag, made of cloth well pitched, or sometimes of leather, of about 1½ inch diameter, filled with powder, going from the chamber of the mine to the entrance of the gallery. It is generally placed in a wooden pipe, called an agger, to prevent its growing damp. It serves to give fire to mines, casions, bomb chests, &c.

SAUCISSON, Fr. A machine made use of to set fire to the different compartments in a fire-ship. SAUCISSONS D'ARTIFICE, Fr. Saucissons used in artificial fireworks.

SAUFRouge, A pass.

Saut, Fr. This word is used in hydraulics to signify a considerable fall of water, such as the falls of Niagara, &c.
SAUTER, Fr. To leap.
SAUTER a l'escadre, Fr. To leap upon the deck, or on any part of an enemy's ship, for the purpose of boarding her.
SAUTER en selle, Fr. To get on horseback. To jump upon your saddle.
SAUVE-gardes, Fr. Sate-guard. Protection.
accorder des SAUVE-gardes, Fr. To grant protections.
Envoyer une garde en SAUVE-gardes, Fr. To send out a party for the purpose of escorting persons, or of protecting any particular quarter.
Sauver pout! Fr. Let those escape that can. This expression is familiar to the French; it was employed in an early part of the revolution, by the royalists to produce panic in the ranks of the revolutionary army; and was used with success particularly in the corps under Gen. Dillon in Flanders.
SAVAN, Ind. The name of an Indian month, which corresponds with July.
SAW. A denatured steel instrument with which wood or metal is cut by attrition. Each pioneer is provided with one.
SAYON, Fr. A kind of coarse habit in which soldiers were formerly clothed among the French.
SCABARD, (Fourreau, Fr.) A case containing a sword, sabre, with a ferret at the end, in which a sword, sabre, &c. may be sheathed.
Beyond SCABARD. A leathern sheath made in a triangular form to correspond with the shape of the bayonet.
SCABBARD-button. A brass button or hook by which the scabbard is attached to the frog of the belt.

The word scabbard has been sometimes used in a figurative sense to distinguish those persons who have obtained rank and promotion in the army without seeing much hard service, from those who have fought their way through all the obstacles of superior interest, &c. Hence the favourite expression of the late Sir William Erskine—"some rise by the scabbard, and some by the sword"! This means more than we are at liberty to illustrate, but which may be easily applied to cases in point.

SCALADE, from the French Escalade, a furious attack upon a wall or rampart, contrary to form, and with no regularity, frequently carried on with ladders, to insult the wall by open force.
SCALE, a right line divided into equal parts, representing miles, fathoms, paces, feet, inches, &c. used in making plans upon paper; giving each line its true length, &c. See also BALANCE, ESCALADE, &c.
SCALENE, Fr. A term used in geometry to express a triangle whose three sides and three angles are unequal to one another.

SCALING-ladder. See LADDERS, SCALLOP, any segment of a circle.
SCALPE. To deprive the scalp of its integuments. A barbarous custom in practice amongst the Indian warriors, of taking off the tops of the scalps of the enemies scalps with their hands. They preserve them as trophies of their victories, and are rewarded by their chiefs, according to the number they bring in.

To SCAMPER, (Escamper, Fr.) To run away precipitately.
SCARF. See SASH, SCARLET, the national color for the dress of the British. The British artillery, cavalry, and some of the light infantry, are clothed in blue; rifle corps in green; and the cavalry for foreign service in light blue. See UNIFORM.
SCARFE. See ESCARPE, SCENOGRAPHY, (Scenograph, Fr.) The representation of a building, town, &c. as it appears in perspective or from without, with all its dimensions and shadows.

SCHEDULE, an inventory, a list; also something referred to by numbers or letters; as the ords of the recruit and magistrate, marked A and B at the end of the military act.
SCHOOL, (École, Fr.) A house of discipline and instruction; a place of literary education; an university. It is a more general and comprehensive term than college or academy. The French have made a great distinction on this head with respect to their military institutions. Thus the great receptacle for military genius was called L'École Militaire de Paris, the military school of Paris, whereas the subordinate places of instruction and the preparatory houses, were termed colleges, viz. colleges de Sorbonne, Brienne, Tiber, Reims, Reumont, Pont-le-roî, Vendome, Efliat, Pont-a-Mousson, Tourman. British Royal Military School or College. A new institution under the direction of the commander in chief, for the time being.

This establishment consists of two departments:

The first, or senior department, is calculated to instruct officers, who have already acquired a sufficient knowledge of regimental duties, &c. in the higher branches of their profession. Their attention is particularly directed to those functions which relate to the quarter-master-general's department in the field.

The second, or junior department, is meant for the education of young men, who have not yet received any commissions in the army; but who are intended from early life for the profession of arms.

The following particulars constitute the general outline of this praiseworthy institution:

The commander in chief for the time
is always to be considered as the chief governor of the establishment. He is president of the supreme board of the college; the members of which are the secretary at war, and such general and staff officers as the king may, from time to time, nominate. It is their peculiar province to see, that the regulations of the institution be duly observed, and unequivocally fulfilled, and that the whole be conducted with economy and credit to the country.

There is constantly resident in the college a governor and a lieutenant-governor, who must both be military officers. The former not under the rank of major, and the latter not under that of lieutenant-colonel in the line. These are the immediate functionaries of the place, to whom it is intrusted the entire direction of the establishment; subject only to the instructions and orders that may occasionally be issued from the supreme board of the college.

At the head of each department are placed a commandant and a director of instruction. These must likewise be military men, and bear the king's commission. They are at all times accountable for their respective departments, being under the immediate control of the governor and lieutenant-governor of the college.

The commandants of departments, in conjunction with the directors of instruction, form a collegiate board, at which the resident governor, or, in his absence, the lieutenant-governor constantly presides.

Public examinations are made, at stated periods, by this board, in order to ascertain the progress of learning, and the degrees of improvement. The president and members of it likewise enter into the interior economy of the place, control the expenditure of the establishment, and maintain the statutes of the college; subject nevertheless to the control and occasional direction of the supreme board, to which the collegiate one is in every respect subordinate.

The staff and other officers of each department are under the immediate orders of their respective commandants, who are enjoined to conduct their departments in strict conformity to the existing rules and discipline.

The establishment is founded upon principles of the strictest economy; and the expense of being at the institution, with all the advantages of theoretical instruction and practical improvement, must not exceed the necessary charges and disbursements to which every officer is subject when he lives with his regiment.

It is a standing order of the institution, that officers must constantly appear in uniform; and they must in all respects conform to the rules and regulations.

Leave of absence is granted, during the months of December and January, to officers studying in the senior department of the college; but at no other season of the year, except for a few days, and then only under circumstances and in cases of urgent necessity.

Senior department.

The number of officers which can be admitted, at a time, to the studies of the senior department, is limited to 35, and it is required, as indispensably necessary, that they should be perfectly conversant in all the details of regimental duty.

They must likewise have made themselves masters of the French language, be versed in mathematics, and in the science of field fortifications and castrametation, and be well instructed in the drawing of military plans, &c.

Every thing which relates to the different branches belonging to the senior department, is conveyed in French, in order that officers may be enabled to improve the knowledge they acquire at the establishment, by reading with facility, the military writers that are most in estimation. The majority of such authors being found among the French, that language is, of course, most cultivated; by which means the first object of acquirement will not only be obtained, but will ensue to the general staff of the army a disposable body of intelligent officers, that are conversant in a continental tongue.

The instruction is not elementary or given upon first principles only. The attention of the officers is directed to higher branches, and the lessons they receive are exemplified by practice in the field, by taking ground, &c.

The particular, and more immediate duties, appertaining to the general staff, to which the faculties of the mind are principally applied, consist in taking la coup d'oeil, or at sight, military surveys of ground without any mechanical process, or aid of instruments, and to express the same on paper with the most accurate perspicuity.

It is, therefore, necessary that the officers of the senior department should be able to judge of the advantages and disadvantages of ground relative to offensive and defensive operations; to employ geometrical and trigonometrical operations on the ground; to chuse the site of position of entrenchments and batteries, by which every part of a camp may be defended, and its leading avenues, &c. put à l'abri de surprise. They must likewise be masters of a theory which may be adapted to every case in which field fortification can be employed; to trace engravings on the ground, and to prick out the lines of entrenchments, &c. with dispatch and accuracy, in conformity to the strict rules of castrametation; to be thoroughly conversant in the theory of camp out-duries, and of the grand guards of armés; to know how to reconnoitre ground for a given number of columns moving in route of...
manner of deploying, and their relative
round, the defiles, the width of roads,
ns with respect to each other.
To reconnoitre routes for the march of
mark which we have already made ap-
certain the arrival of several columns
attention to the conveniences of
which are attendant on the movements of
... To regulate the route of march which has in view only
calculation.


To reconnoitre the route of a column
in *advancing*, to estimate the labor of
opening the several communications, to
calculate the number of artificers that are
requisite, and the time that is necessary to
clear the route for the march of a column,
and to detail the same in an accurate man-
ner upon paper.

To reconnoitre the route of a column in
retreat, specifying, in a clear and succinct
manner upon paper, the several points in
retreat that are favorable to each arm
composing the rear guard, when they may
halt, and act as covering parties to the re-

To reconnoitre and take up ground for
a given body of troops on a defensive po-

To reconnoitre the ground upon which
any given number of troops might be en-
camped under circumstances of aggre-
sion. In taking this position for the
purpose of acting *offensively*, particular at-
tention must be paid to the future move-
ments of the army, by providing the read-
est means of directing and support-
ing its operations.

Marches and movements constitute so
essential a branch in military tactics, that
they almost wholly depend on the issue
of a campaign. It is consequently ex-
pected, that every officer belonging to the
senior department, should be able to
calculate the march of a column under all
the various and desultory circumstances
which are attendant on the movements of
troops. He must accurately ascertain the
ground, the defiles, the width of routes,
&c. the length of the several columns.—

The hours occupied in marching, detaining,
passing obstacles, &c. must come within
this calculation.

It must be remarked, that this is a
route of march which has in view only
to convey a body of troops from one posi-
tion to another, without being connected
with military operations relative to the en-

To calculate the march of several col-

To reconnoitre routes for the march of
several columns *in advancing*; to form
the columns of march so as to correspond
with the field of battle which they are to
occupy, and to point out the routes by
which they are severally to arrive. The
remark which we have already made ap-
pplies to this part likewise.

To regulate an order of march, and to
ascertain the arrival of several columns
on the field, with regard to the appropriate
manner of deploying, and their relative
dispositions, whether with a view to their
camping, or to forming in order of

To reconnoitre routes for the march of
several columns *in retreat*, for the purpose
of forming columns of march according to
the circumstances of the retreat, and in
conformity to the ground to which they
take refuge.

To regulate the retreat and relative
support of the rear guards attached to
several columns.

In order to add practical knowledge to
theory, and to adapt the observations of
established military writers to local expe-
rience, every survey or reconnoitering of
country, for the retreat or advance of co-
lumns; for offensive or defensive posi-
tions; for encampments, or the construc-
tion and erection of batteries, &c. is made
upon spots that are actually in the neigh-
boredom of the establishment; and every
object of instruction is applied to the local
circumstance of the ground as it actually
exists. It is required, that plans of these
different surveys, &c. should at all times
accompany and be given in with the lesson
of instruction.

Officers of the senior department must
not only be well acquainted with these
particulars, but they must further know
how to regulate the cantonments of an
army.

To estimate the resources of a country,
in green and dry forage, in cattle, grain,
horses, and carriages, together with the
population.

To draw out plans of resources, general
plans of operations and subordinate ones
of position, and of cantonment.

According to the season of the year,
and the state of the weather, officers are
employed in acquiring the theory, or ap-
plying in practice on the ground, these sev-
eral points of instruction to which their
attention has been directed.

It is required of them, individually, to
reconnoitre a given tract or line of country.
The military positions they take up, as
well as the disposition they make of
troops, whether in camp or in order of
march, are invariably represented by plans
in drawing, and all instruction is exem-
plified by applications which are made in
the field, and are adapted to the local cir-
cumstances of ground. In order to ren-
der the different lessons familiar to the
mind, and to make them practically easy,
imaginary marches are made from one
supposed camp to another, and the vari-
ous orders which relate to the movements
of troops are given out and explained, as
if they were to be actually carried into
effect. Points of attack or defense are
taken up, ambushes are laid, and all the
chicanery of what the French so justly call
*de petite guerre*, is entered into with as
much promptitude and caution, as if the
enemy were in the neighborhood of the
college. The maneuvers of light troops
are particularly practiced, and the diffe-
en instructions which have been publish-ed in French on that branch of military tactics by Mons. Jarry, are practically taught, as time and circumstances permit.

The elements of field fortification, and the higher branches of attack and defence, are not only inculcated with the greatest perspicuity, but they are reduced to practice by imaginary lines of circumvallation and contraval-lof; by posts and positions suddenly taken, and quickly fortified, whilst the maps of fronts and stratagems of war which have been practised by the best generals, are locally attempted, for the double purpose of applying practice to established facts, and of seizing some new idea that may grow out of ancient practice.

Whenever an officer has completed his studies, he is reported to the commander in chief, as having qualified himself for the quarter-master-general's department, and returns to his regiment, having had his name previously registered at the college, in order that he may be employed on the general staff of the army when his services are required.

When an officer wishes to be admitted to the military college, his application must be addressed to the commander in chief, for the time being, through the medium of the colonel or commanding officer of his regiment, who sends it, under cover, to the official or public secretary at the Horse-Guards, with his own certificate of the good conduct of the applicant.

When an officer, thus admitted, is found deficient in any of the branches of elementary knowledge, which he is expected to have acquired previous to his entrance into the senior department, he may have the advantage of instruction from the professors and masters of the junior department. It would, however, be more gratifying to all parties, were such officers to qualify themselves before they quit their corps.

The same allowances which are established for troops in barracks, are made to officers who attend the instructions of the senior department.

Every officer admitted to this department is required to have a horse to attend his duty in the field, and regular rations of biscuit, &c., are issued to him for his keeping.

The officers of the senior department meet together, and their table is regulated by specific statutes of the college.

Junior department.

This department is calculated to receive three hundred students from the age of fourteen to sixteen. Fifty out of this number may be cadets of the hon. East India company's service; one hundred the sons of noblemen and gentlemen who are intended for the army; one hundred the sons of officers actually in the service; and fifty the sons of officers who have died, or have been disabled in his majesty's service, and are left in pecuniary distress.

The students are formed into four companies; and proper persons are appointed for their care and superintendence.

They are to wear an established uniform, and to be conducted as a military body, regard being had to their youth, and certain instructions adopted for its government.

The course of study which is arranged for this department is of a preparatory nature, leading gradually to branches of a higher class that are fitted for the staff; and adding to classical knowledge, every accomplishment that is required to form the character of a perfect gentleman and officer.

The students are taught the several branches of mathematics, field fortification, together with the general principles of gunnery and artillery service. They are instructed in drawing military plans, military moves, and perspective.

They are also made acquainted with the first rudiments of war, the science of military manoeuvre, with geography and history, as well as with the German and French languages. Professors and masters are appointed to teach the Hindoo and Persian tongues, as being immediately necessary to the service of India.

Masters are likewise provided to instruct cadets in the geography of India, and to make them familiarly acquainted with the local knowledge of the settlement for which they are severally intended.

The directors of instruction are made particularly responsible for the proper management of the studies, and different elementary branches which constitute an essential part of the establishment.

The professors and masters are employed generally to instruct in both departments, under the control of the chief director.

The whole establishment, which has military knowledge and improvement for its basis, is conducted upon strict military principles, and in scrupulous conformity to the rules and discipline which are issued by authority for the government of the army at large.

A sufficient number of masters are constantly resident in the college, for the instruction of such students as may wish to continue their classical studies. Frequent lessons are given them on moral and natural philosophy.

They are likewise taught riding, swimming, fencing, and the saber and sword exercise.

The instruction of the department is divided into two parts, forming a junior and senior division of study.

Public examinations are held in this department, in order to remove students from the lower to the higher division of study; and also for the purpose of granting certificates to such as are qualified to
act as commissioned officers in the service, at an age under what is required by the present regulations of the army.

From this department students will join the regiments into which they severally enter; and after having obtained some experience, by going through the different duties of a regimental officer, they will be qualified to return to the college, and to enter into the senior department, if they are disposed to study the service of the general staff.

The public examinations are held in presence of one or more visitors or inspectors, nominated by the commander in chief, and it is required, that they should be members of the supreme board of the college.

The expense attending the education of a young gentleman in this department, is according to the foundation on which he is admitted to the college.

The sons of noblemen and gentlemen pay 80l. per annum.

The sons of officers in service pay 70l. per annum and orphans, who are the sons of officers that have died in the service, or the sons of those that have been disabled and are straitened in circumstances, are educated, clothed, and maintained free of all expense.

The board, clothing, and accommodation, are included in the several sums above specified.

There are two vacations in the course of twelve months, viz. -At Christmas and Midsummer, for a term not exceeding one month each vacation.

The accounts are balanced at the expiration of six months in every year, and are laid before the supreme board, at which periods, reports of progress made in the several branches of literature and technical science, and of the public examinations, are made before the committee.

These documents, accompanied by well digested remarks and reasonable suggestions, for future improvement, are laid before the king by the commandant in chief, as president and governor of the college.

The supreme board of the college is composed in the following manner:

- The commandant in chief for the time being, president.
- Secretary at war.
- Governor.
- Master-general of the ordnance.
- Governor of Chelsea college.
- Quarter-master-general.
- Lieutenant-colonel Le Marchant, as lieutenant governor.
- General Jarry as commandant of the senior department.
- These are the members of the supreme board, and such others may, from time to time, be named.

A secretary to the supreme board.

A president to the college.

The military SCHOOL at Paris, (école royale militaire de Paris, Fr.) This celebrated establishment, which for so many years supplied France with superior talents, and to which Bonaparte was indebted for the solid groundwork of that military knowledge that has astonished and conquered Europe, owes its origin to Henry IV, who first erected a public building in Angouleme, for the free education of the children of poor noblemen; it was called the college of La Flèche, where one hundred young boys of the above description were supported, &c. at the king's expense. They were there taught the liberal arts by the Jesuits, whose learning, and aptitude at teaching others have been so deservedly admired in every quarter of the globe. This order, however, having been banished out of France in 1770, by Louis XV because the numbers interfered with the government (whilst all their crimes consisted in being too virtuous to countenance the debauches of that weak monarch); the direction of the college was entrusted to the secular priests, and the number of students was increased to 530. On this occasion it was distinguished by a particular mark of royal favor, and was called the royal college.

In addition to this provincial establishment, Louis XV. instituted the royal military school in the neighborhood of Paris, where 250 young lads received a regular education under the most able masters; particularly in those branches which contributed to military knowledge. During their vacations, and at periods of intermission from classical pursuits, they were attended and instructed by experienced officers. They generally remained until the age of 18, and were after that distributed among the different regiments with appropriate commissions. They were then distinguished by being permitted to wear a cross, which was tied to the preservation of good order, &c. and the improvement of the institution, are laid before the king by the commandant in chief, as president and governor of the college.

The cross, on one side, represented the figure of the Virgin Mary; and on the other, there was a trophy adorned with three fleurs de lis. They had likewise an annual pension of 200 livres, (about 60 dollars) which was paid them without deduction, until they obtained the rank of captain, provided they had a certificate of good behavior from the staff or first major of their corps. They received, moreover, when they quitted the school, a small kit of linen, a hat, sword, and an uniform coat. They were replaced in the military school by an equal number of youths who came from the college of La Flèche, for that purpose, at the age of 15 or 14.

Both these establishments underwent a considerable alteration during the adm
mitigation of the count de St. Germain.

In April 1776, this minister persuaded
Louis XVI. that great public benefit
might be derived from increasing the
number of these colleges, and admitting
youths from every class of his subjects.

When these alterations took place in the
royal military school, 2,000 young men
left the gates of each of their predecessors had possessed; with
this exception, that they did not wear the
uniform of their corps, nor the cross.

These ladies who had not reached the pe-
period in question, were placed in different
corps, and several remained in the military
school who were afterwards provided for by the
administration of all the advantages which
their successors had enjoyed; with the
exception, that they did not wear the
uniform of their corps, nor the cross.

On the 28th of March 1776, the king
gave directions, that ten colleges should
be established, over the gates of each of
which was written—College Royal Mil-
itaris; royal military college. These
corps were under the immediate care and
instruction of the Benedictine monks, and
other religious persons.

The secretary of state held the same
jurisdiction over these colleges that he
possessed over La Flèche, and the military
school at Paris.

There were always 50 at least, and
never more than 60 young men placed for
education in each of these colleges, at the
expense of the king; amounting annually
per head to 700 livres, about 150 dollars.

This sum each student was supplied
with a blue coat with red cuffs, and
white buttons, a blue surtout or great
coat, two white waistcoats, two pairs of
black breeches, twelve shirts, twelve
articles at the expense of the college.

The king's students, or those young
men who had reached the period in ques-
tion, were placed in different
corps, and several remained in the military
school who were afterwards provided for by
the administration of all the advantages which
their successors had enjoyed; with the
exception, that they did not wear the
uniform of their corps, nor the cross.

The king directed that the pensions for
50 students upon the establishment, should be paid three months in advance
to the several colleges, for the purpose of
They were again questioned as to every companies. They were further entitled occasion be what it might, they ceased to on their becoming lieutenants in the arm v. rank of captain, the pension ceased.­ vice before they had obtained the above examination, took place every ye.,r, and sufficiently instructed to join a re)(ular school. If any of them quitteJ the ser. sions or temporary allowances in the fol. lowing manner:-The two first got 1~0 livres, between 8/. and livres, between 8/. and odd 200 dollars, each of whom a separate apartment, &c. Each of those students was allowed a small separate apartment, with a key to the door. They were disti. guished in a particular quarter of the building, that they might be more easily attended to; having no other communi. cation with the honorary pensioners, or those who had an allowance from their parents, than what was absolutely ne­ cessary to carry on the public instruction and discipline of the place.

The college of Brienne, a small town in Champagne, was fixed upon for the admission of the young lads whose wages were paid by their parents. The latter likewise defrayed the expenses of the journey; but they were entitled to the same ind.iscrimination that was afterwards granted to the king’s students.— The same rules and method of instruction were pursued by the different colleges, in order that all the candidates might be brought together at the same time for examination. This examination was made in the presence of the principal, and under inspector of the schools, and of other literary men, who were appointed by the secretary of state for that purpose, and received 1200 livres, or 250 dollars, as a gratification for their attendance, be­ sides board and lodging at the king’s ex­ pense. The heads of colleges were enjoined to meet for ex­ amination, took place every ye­r, and lasted from the 1st to the 15th of Septem­ ber, the original one commencing in Sep­ tember 1778. The young men that pass­ the examination to the full satisfaction of the examiners, were placed in different regiments, and received commissions accordingly.

The four best informed and most able of the young candidates, received pensions or temporary allowances in the fol­ lowing manner:—The two first got 150 livres, between 6/. and 7/. sterling; and the next 100 livres, equal to 6/. odd per annum, until they were promoted to companies. They were further entitled to wear the ancient cross of the military school. If any of them quitted the ser­ vice before they had obtained the above rank of captain, the pension ceased.— They likewise received, (in common with all the other students that left the establish­ ment) 200 livres, between 8/. and 9/. on their becoming lieutenants in the army.

The young men that were not found sufficiently instructed to join a regular corps, as gentlemen cadets, remained at the Collège de Concours, or college of ex­ amination, until the following year, when they were again questioned as to every particular which regarded a military edu­ cation. But, let their success on this occasion be what it might, they ceased to be entitled to those marks of distinction and temporary allowances which were given to the first successful candidates. Those boys, who were brought by their parents, and for whom a pension was to be paid, lost all pretensions to the notice of government if they failed to give sat­ faction at this final hearing. Proper re­ presentations of their incapacity were made by the inspector of military schools to the secretary of state, which repre­ sentations were formally attested and cor­ roborated by the opinion and judgment of the superior of the college of Brienne, in order that an accurate account might be given to his majesty, and that the parents might be officially directed to send or come for their children.

The superior or head of each subordinate college was directed, from the 1st of July 1778, to send, under cover to the secretary at war, an effective return of those students that had finished the course of education, and were prepared for examination. An order was then is­ sued from the war-office for their attend­ ance at the college of Brienne.

The heads of colleges were enjoined to transmit, annually, to the secretary of the war department, an analysis of the various elementary tracts which they had perused, accompanied by comments and observations thereon, together with ori­ ginal suggestions of their own. 600 livres, or 1250 dollars, were allowed out of the annual revenue of the military school at Paris, for the specific purpose of rewarding those writers who publish the best treatises relative to the military education of youth; and when this intent was fulfilled, the surplus or balance of the sum entire was appropriated to the purchase of books, which were equally dis­ tributed among the different colleges, each of which had a separate library for the convenience and improvement of the students.

The king left it to the discretion of the different religious orders, to select such persons, as were employed to calculate the direction of the colleges, and to chuse the different masters and professors. He reserved, however, to himself the power of displacing any of them, if, up­ on mature and correct representation they were found inadequate to the trust.

The four professors, belonging to the colleges in which the four successful candidates at the general examination had been educated, received four golden me­ dals, each worth 150 livres, 25 dollars, as a testimony of his majesty’s approba­ tion. The king’s likeness was on one side of the medal, and on the other was engraved, Prix de bon Instructeur; the good teacher’s prize. With the laudable view of collecting the best and most able masters, various rewards were imag­ ined, and occasionally distributed among the different persons employed in the in­ struction of young beginners.

The different vacancies which occurred in consequence of the public examination, that took place once a year, were regularly filled up at that period.

The secretary of state transmitted to...
the heads of colleges a list, containing the names of the young men that were to succeed.

This XVI. exclusively of the 600 students who were placed in the different colleges pursuant to the new regulations, restored the ancient foundation of La Fleche, which had originally been established by Henry IV. for the benefit of 100 poor boys, who were of noble families, and whose parents had rendered some service to the state in the civil, military, or ecclesiastical line. They were educated according to the bent of their talents and disposition, and fitted to any of those professions; provisions and regulations having been made in the college of La Fleche for these purposes, which differed from the general system pursued in the other military colleges.

Those boys, who at 13 or 14 years old, discarding a partiality to civil or ecclesiastical functions, left the subordinate colleges, and repaired to La Fleche. Their number was limited to five, who might annually be admitted in consequence of an order for that purpose from the secretary at war; which order was obtained by their parents, on a representation being made to him of their talents and dispositions, confirmed and vouched for by the inspector general, and by the heads and superiors of each college.

An extraordinary allowance was made by the king to enable these students to acquire a knowledge of law, and to become acquainted with every species of theological learning.

These students were never permitted to leave college under a pretext of seeing their friends or parents, however near the residence of the latter might be.

The heads or superiors of each college transmitted quarterly to the secretary of state for the war department, and to the inspector general of schools, a minute account of the actual state of the college, and of the progress which each student had made in the several branches of education. If any extraordinary occurrence happened, these communications were to be made forthwith, and at broken periods, without waiting for the regular expiration of three months. They were likewise instructed to communicate with the parents of such children, as were paid for by them, giving an account of their progress in education, and stating what they had written on that subject to the secretary of state.

The inspector and under inspector-general went every year to the different colleges, to examine personally into every thing that concerned the management of each institution, and to report accordingly to his majesty.

The secretary of state for the war department was directed by the king to be present at the annual distribution of prizes, which were given in each college, in order to give every aid and consequence to these public marks of royal attention. In case of the secretary’s death or sickness, the inspector-general of the schools attended for the same well-judged purpose.

On the 26th of July 1783, an order appeared, by which the king directed the young gentlemen who, by a former regulation, could only be admitted into the royal colleges between the ages of eight and eleven, should be received from the age of seven to that of ten. Orphans alone could be admitted as late as the full completion of twelve years. The parents of such children as had been approved of by his majesty, were, without delay, to send in proofs and certificates of their nobility; in failure whereof one year after their nomination, they were deprived of the situation which had been destined for them.

No family could solicit a letter of admission for more than one child at a time; and when it was granted, no application could be made in favor of another child until the first had completed his education, and was provided for in a regiment, or elsewhere.

The wisdom of this regulation is manifest. It was calculated to prevent every species of partiality and undue influence, and to keep the door open for many meritorious youth, that might otherwise be deprived of the advantages of this useful institution. Like every other system, however, of that ill-fated monarchy, the principles were gradually perverted; and what was intended as a general good, became subservient to the intrigues of Versailles, the secret views of inspectors and commissaries, and the venal piety of individuals that acted under them. This evil was not confined to France. It has existed, and does still exist in the transactions: the transactions in the case of the duke of York, in England, shews the profuse venality with which the sale of military offices was conducted. So strict was the regulation in France to prevent any monopoly of interest or patronage, that particular instructions were issued to commissaries to repair into the different provinces in which the several colleges stood, and to see that no students were sent to the general examination at Brienne, who had any brother or brothers under the same establishment.

On the 21st of January 1779, the following regulation appeared for the better management and advantage of the students belonging to the French royal military school:

It was ordained, that the privilege of being received as members of the military orders of Notre Dame, of Mont-Carmel, and St. Lazarus, of Jerusalem, which had hitherto been given, without distinction, to all the students of the different colleges, should in future be considered as the reward of peculiar merit, and be required the means of exciting
emulation among the gentlemen cadets of the royal military school only.

To this end the secretary of the war department was instructed to give in a list of six students who should have passed an examination before the inspector-general, with a minute account of their progress in the different arts and sciences, as well as of their general good conduct, natural disposition, &c. From this number three were selected by the grand master, and were made knights of the order, with permission to wear the cross according to prescribed rules and regulations. All the students that were so distinguished received from the revenue or funds of the order an annual allowance of 100 livres, or twenty dollars, which they continued to enjoy as long as they remained in the service, and after they quitted it, provided they retired from the causes already stated. If a knight of the order of Notre Dame du St. Carmel, did any singular act of bravery, or discovered talents of superior military knowledge, on a proper attestation being produced of the same, signed by the general under whom he served, and countersigned by the minister of war, he became knight of the order of St. Lazarus, and by thus uniting the two orders, preserved an uncontested proof of the service he had rendered.

This regulation, however, did not interfere with the ancient forms and rules of the royal military school, so far as they concerned those students who had already been received into two orders. It only went to restrict the number of such as might lay claim to the particular marks of distinction, &c., which were thereby granted to the newly admitted.

In these schools, and in those of the artillery noted below, is to be found the true foundation of the military triumphs of France from 1772 to 1800.

The great military school of France is now established at Fontainebleau by Bonaparte.

The French had likewise a marine school, école du marine, which was kept at the expense of government, and was regularly attended to, in one of the departments. There was also a ship, distinguished by the name of school, which was regularly manned and equipped for the instruction of young marines.

There were several schools of artillery, écoles d'artillerie, distributed in different parts of the kingdom, and supported at the public charge. The five principal ones were at La Fère, Mira, Grenoble, Strasburg, and Perpignan.

They were under the direction of an inspector-general, who had the rank of a lieutenant-general in the army. Each school was superintended by three commanders, and was composed of ordinary and extraordinary commissaries belonging to the artillery, of officers who had the immediate direction of the levelling and pointing pieces of ordnance, and of volunteer cadets.

These schools were open throughout the year; advantage being taken of occasional fine weather during the winter months to practise and exercise. They were divided into schools of theory, écoles de théorie, and into schools of practice, écoles de pratique.

The theoretical establishments were for the immediate instruction of all officers,
ers belonging to the engineer and the artillery departments.

The practical schools were open indiscriminately to all officers and soldiers. There was also a particular school for the information of those persons who directed their attention to mining and sapping; this school was called l'école des Seppeurs. The miner’s school, there was likewise a school established at La Fère, to which none but artillery officers could be admitted. The students consisted of one company, whose number never exceeded 50. They had the rank of sub-lieutenants, and received a monthly subsistence, amounting to forty French livres, a little more than seven dollars.

The school at Mézières, which was established before the additional one at La Fère, for the exclusive use and advantage of the artillery, was calculated to receive 30 officers; and those who went from La Fère had the rank of second lieutenants, with 60 livres, something more than ten dollars, as monthly subsistence.

It will naturally strike every observer, out before, and on the wings of an army, that every benefit he can from giving lessons with a regular motion, and in the smallest space. The students must be held in high estimation, and are supported by government, and warmly patronised by the different reigning monarchs in France, that military science is considered as one of the chief objects of French policy; and it is only bare justice to say, that their encouragement was not gratuitously bestowed. All Europe has testified to the effect, that the neglect of military science in other nations is equally striking, and ought to produce more wise precautions. The Turks have a military school, called the school for the Agiendaris, or young men attached to the corps of Janissaries. This institution was erected by Amurat, for the purpose of securing a certain number of persons to every possible hardship of military service.

Sciagraphy, (Sciagraphie, Fr.) Every French regiment, when in bivouac or otherwise conveniently quartered, has a room allotted for the exercise of the small sword, the spadroon, &c. Some active officer or soldier is authorized to teach his comrades, and to derive what benefit he can from giving lessons abroad. We need scarcely add, that some internal regulation of the kind would be highly advantageous to officers everywhere.

Screw, or Escrou, (Escrou, Fr.) One of the mechanical powers, which is formed of a right cylinder cut into a furrowed spiral. Wilkins calls it a kind of wedge, that is multiplied or continued by a helical revolution about a cylinder, receiving its motion not from any stroke, but from a vortex at one end of it.

Scissors, in gunnery, are fastened to the cascable of light guns and howitzers, by means of an iron bolt, which is fastened through a socket fixed upon the centre transom, to elevate or depress the piece with, instead of wedges.

Scour of direction, (Vis de Pointage, Fr.) The screw of direction, used in the artillery, is formed of a brass horizontal roller, placed between the two cheeks of the carriage. The trunnions of the roller move upon two vertical iron pivots, which are fixed against the interior sides of the cheeks. By means of this screw the direction of pieces is either raised or lowered with a regular movement, and in the smallest space.

The screw of direction, or Vis de Pointage, is equally used for howitzers as well as for heavy pieces of ordnance. It has been invented by the French, and serves in lieu of the Cisnes a Cremaillere, or indented coins. So little progress has military science made in the United States, that there are many old officers in the U. States' service who know nothing even of this little but important particular.

Lock Screws. Small screws which are attached to the lock of a musket.
to cleanliness of person and food, eating salted meat and drinking bad water, &c. SCUT & Carret, Fr. In Dutch Schrot, and Carot, is pronounced with us as if written cannon. Any small boat which is used in navigation for the accommodation of sailors.

SEAKER, an instrument used by the founders to discover any flaws in the bore of cannon, &c. See FLOOR.

To SEASON. In a military sense, to accustom, to ensure. Soldiers are frequently sent to Gibraltar in order to be seasoned in navigation for the accommodation of a ship, the bore of cannon, &c. See PROOF.

It was very usual among the French for the seconds to make common cause with their principal, and to assist upon the decease of the former. The practice is repelled and out of date.

To SECONDER, (second, Fr.) To aid, assist, to support.

SECOND course, that beyond the second ditch. See FORTIFICATION.

SECOND ditch, that made on the outside of the glacis, when the ground is low, and there is plenty of water. See FORTIFICATION.

SECOND Planches, Fr. See Flank Embankment in FORTIFICATION.

SECOUIR une place, Fr. To throw succours into a besieged town or place.

SECRET. In a military economy this quality is peculiarly requisite. It signifies fidelity to a secret; taciturnity inviolate; close silence. Officers, in particular, should be well aware of the importance of it, as the divulging of what has been confidentially entrusted to them, especially on expeditions, might render the whole project abortive.

SECRET, (secret, Fr.) Under this word may be considered the caution and circumspection which every good general should observe during a campaign; the feints he may think proper to make for the purpose of covering a projected attack; and the various stratagems to which he may resort to keep his own intentions concealed, and to get at those of others.

SECRET. Kep hidden, not revealed. Hence secret expedition, secret enterprise, &c. Secret articles of a treaty, being the correlative words to public articles.

SECRET. Fr. The spot chosen by the captain of a fire ship to apply the saucisson of communication.

SECRET expedition. Those are often called such, which in fact are known to the enemy before they are put in execution; they should never be communicated to any other than the commander of the troops, and the first naval officer, until they are in absolute readiness to act, but a few hours before the enterprise is put in execution: no officer being allowed to open his instructions until he is either at his destination, or at sea. See EXPEDITION.
SECRETAIRES, Fr. The clock belonging to the Swiss regiments in the old French service, was so called. It acted likewise as a quarter master sergeant, and was styled Muster-schreiber.

SECRETARI general d'artillerie, Fr. A place of trust, which, during the French monarchy, was in the nomination of the grand master.

SECRETARY of war, (Secrétair de guerre, Fr.) The first officer of the war department.

SECRETARY of state, (Secrétair d'état, Fr.) The secretary who has charge of the foreign relations.

To SECRET, to hide; to keep private; to harbor; to conceal, &c. By the articles of war it is provided, that if any person shall harbor, conceal, or assist any deserter from his majesty's service, knowing him to be such, the person so offending shall forfeit, for every such offense, the sum of $200.

SECTION, (Section, Fr.) From the Latin word sectum, which is derived from secta, a part of a thing divided, or the division itself. Such particularly are the subdivisions of a chapter, called also paragraphs and articles. Sometimes we use the term section divided into articles; as in the articles of war.

SECTION, (Section, Fr.) A certain proportion of a battalion or company, when it is told off for military movements and operations. A section may consist of four or any other number of files. This relates to the infantry; the cavalry into ranks by three's, and after that in any number of files or sections.

SECTOR, (Secur, Fr.) A mathematical instrument of great use in finding the proportion between quantities of the same kind, as between lines and lines, surfaces and surfaces, &c. for which reason the French call it the compass of proportion. The great advantage of the sector, above common scales, &c. is, that it is adapted to all radii, and all scales. The sector is founded on the fourth proposition of the sixth book of Euclid. The sector consists of two equal legs, or rules of brass, &c. revolved together, but so as to move easily on the river; on the faces of the instrument are placed several lines; the principal of which are; the line of equal parts, line of chords, line of sines, line of tangents, line of secants, and line of polar.

To SECURE, in a military sense, to preserve, to keep, to make certain. As to secure a place, to secure a conquest. In the management of the firelock, it signifies to bring it to a certain position, by which the locks are secured against rain. Hence SECURE arms! a word of command which is given to troops who are under arms in wet weather. To bring your firelock to the secure; 1st, throw your right hand briskly up, and place it under the cock, keeping the piece steady in the same position.

2d. Quit the butt with the left hand, and seize the firelock with it at the swell, bringing the elbow close down upon the lock: the right hand kept fast in this motion, and the piece still upright.

3d. Quit the right hand, and place it strongly upon the butt.

4d. Quit the right hand, and bring it sharply down to the right side.

SEDIMENT, in a military sense is to disobey or resist; to cabal or form combinations against the officer or officers in command; to lessen confidence; to resist or oppose orders, or to stir up mutiny. It is an offence in military law of the most fatal character and always punished in a most exemplary manner. See MUTINY.

SEEK, (Sec) A weight nearly equal to a pound.

SEESAR, (Sec) the dewey season.

SEEARISH, (Sear) A recommendation.

SEEPELYA, (Sear) A triangle to which culprits are tied to be punished.

SEFFY, (Sar) A dynasty of Persia.

SEGBANS. Horsemen among the Turks, who have care of the baggage belonging to cavalry regiments.

SEGMENT, a figure contained between a chord and an arch of the circle, or so much of the circle as is cut off by that chord.

SEIJA, (Sar) A fenced terrace.

SEILLURE, (Sar) A sand-crack in a horse's hoof.

SEIJN, (Sar) In the midst. The French say figuratively, porter la guerre dans le sein d'un regard. To carry a war into the heart of a kingdom. Au sein de ses soldats. In the midst of his soldiers.

SEL, (Sar) Salt. Before the revolution of 1789, the French troops were allowed a specific quantity of salt, which was regularly accounted for at the back of the muster-rolls.

SLT, (Sar) The salt used in the artillery is liquid, and of a fixed quality. It is extracted from saltpetre, and must be thoroughly washed, as no saltpetre can

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be good which has the least saline or greasy particle about it.

**SELL**, to give for a price; the word Correlative to buy. Hence to buy and sell commissions.

**Selle,** fr. A saddle. See Boute-selle.

**Selle rain,** fr. A saddle without a bow.

**Selle à arçon,** fr. A bow-saddle.

**Semblables,** fr. In geometry, similar, alike, equal. This term is applied to any two figures, the sides of one of which correspond with the sides of the other, and are always in the same ratio. So that semblable or alike, only means in this sense equal. Two circles, though unequal in their sizes, may still be alike; that is, their several parts may agree according to a certain ratio.

**Semelles,** fr. The axletrees belonging to the carriage of a gun.

**Semestre,** fr. This word literally means a term of six months; but it is generally understood to express any term of leave of absence which is granted to officers or soldiers. With respect to the latter, it means furlough.

**Semicircle,** part of a circle divided by the diameter.

**Semi-diameter,** half of the line which divides a circle into two equal parts.

**Semiordinate,** a line drawn at right angles to be bisected by the axis, and extending from one side of the section to the other.

**Sena,** fr. A small skiff or tender calculated for quick sailing.

**Sénéchal,** (Seneschal, fr.) One who had in great houses the care of beasts, or domestic ceremonies.

**Sens.** entendu despos, fr. Topsy-turvy.

**Sens-devant-devier,** fr. Wrong way.

**Seniority,** in military matters, is the difference of number in two regiments, whereby one is said to be so much senior to the other. All regiments take place according to seniority.

**Sentence,** Decision; determination; final judgment. There is an appeal allowed from the sentence of a regimental court-martial to the opinion of a general one.

**Sentinel,** a private soldier, placed in some part to watch the approach of the enemy, to prevent surprises, to stop such as would pass without order, or discovering who they are. Sentinels are placed before the arms of all guards, at the tents and doors of general officers, colonels of regiments, &c.

All sentinels are to have a watchful eye over the things committed to their charge. They are not to suffer any light to remain, or any fire to be made near their posts in the night-time; neither is any sentry to be relieved, or removed from his post, but by the corporal of the guard. They are not to suffer any one to touch or handle their arms, or in the night-time to come within 10 yards of their post.

No person is to strike or abuse a sentry on his post; but when he has committed a crime, he is to be relieved, and then punished according to the rules and articles of war.

A sentenced, on his post in the night, is not to know any body, but by the countersign; when he challenges, and is answered, relief, or calls out stand, relief advance, corporal! upon which the corporal halts his men, and advances slow within a yard of the sentry’s fire-lock (first ordering his party to port arms, on which the sentry does the same) and gives him the same countersign, taking care that no one hears it. See Rounds.

**Sertinelle,** fr. Surtel; sentry. This word is likewise used to express the duty done by a sentinel. Fortinettle. To stand sentry.

**Sertinelle portes,** fr. A sentry posted in a very advanced situation, so as to be in continual danger of surprise from the enemy.

**Septangular,** having seven angles.

**Septilateral,** having seven sides.

**Septuple,** Seven-fold.

**Seraskier,** (Seraglier, fr.) Among the Turks, the next in rank to the Vizier, in whose absence he commands, but to whose orders he is constantly subservient.

**Sergent d’armes,** fr. During the old monarchy of France, particularly in the reign of Philip Augustus, a guard was composed of firmtrust men for the safety of the king. This guard was called Sergens d’armes, from the Latin word orientes armam. The company of the Sergens d’armes was composed of one hundred and fifty, or two hundred men. The number was reduced by Philip de Valois to one hundred. Charles V., during the regency broke the company, keeping only six men of that description round his person; and Charles VI. had only eight, half of whom did duty alternately every month. With us the serjeant at arms is a person appointed to attend a public body, arrest traitors, and persons offending.

**Sepadar,** Ind. An officer of the rank of brigadier-general.

**Sepah,** Ind. A feudal chief, or military tenant; a soldier. See Sepoy.

**Sepahry,** Ind. Afternoon.

**Sepoy,** Ind. derived from the Persian Spahi. Natives who have enlisted
themselves into the service of the East India Company, and are attached to the infantry. These troops have both native and European commissioned and non-commissioned officers; but the Europeans at all times command. The Sepahis make excellent soldiers, are remarkably clean, and feel a natural predilection for arms. See SPANISH.

SERASKUR, Ind. Native non-commissioned officers who are employed in the artillery, and on board ships of war. In the artillery the title answers to that of serjeant; in the naval service to that of boatswain.

SERASKUR, Ind. This word is sometimes written Seraskier, and signifies the commander in chief of a Turkish army.

SERBANS Colonels in the Turkish service are so called.

SERGEANT, Fr. See SERGEANT or SERJANT.

SERGENT noble, Fr. A post of honor which existed during the first periods of the French monarchy. The French commander, from whose work we have occasionally translated much matter relative to the military history, &c. of France, has the following passage concerning the term itself: "We shall give his meaning literally:--" This term does not come from serjeant, as I have imagined in common with many other etymologists Monsieur Benston, in his Histoire de la Guerre, says, that the serjeant who seemed to think he could trace the origin of his title in the Latin word Servientes, was a gentleman by birth, who during the prevalence of military helps, was liable to do military service, in consequence of the feudal tenure, called Fiefs de Sergenterie, by which he held his land. His superior officer was called Suzerain, the functions of whose situation corresponded with those of a modern adjutant. It was the business of the Sergent Noble, or gentleman serjeant, to assemble all the vasals of the Suzerain, for the purpose of incorporating them under one standard, and of rendering them fit for war.

SERGENT de bande, Fr. Serjeant in the common acceptation of the term. The etymology of this word is different from that of Sergeant Noble. It evidently comes from the French Serregens, or men that close or lock up, the same as serre-files; showing that this non-commissioned officer was placed to take charge of the rear files, whilst the commissioned one was in the front. It was his business to see that the rear conformed itself to the orders which were given in the front; to make the files lock up and dress, &c.

SERGENT de bataille, Fr. Field serjeant. This was an appointment of considerable trust in the old French armies. The sergens de bataille held commands, and did the duty of modern inspectors. They ranked next to a field marshal, or marshall de bataille. The sergens de bataille, or field serjeants, existed under Francis the First. But these field serjeants were only at that time sergens de bande, or train serjeants. There were likewise, under the same king, sergens generaux de bataille, general field serjeants. These were officers of rank, and did the duty of a modern major general.

There were also officers of the same description in the reign of Henry IV. This appointment appears to have been dropped after the peace of the Pyrenees.

The author of the Histoire de la Milice Francaise, observes, that the appointment and duty of the different officers, called marshals, or field serjeants, varied according to the will and pleasure of the French kings, and their war-ministers. He agrees with us, that the situation of field serjeant was originally of great consequence, but that it gradually declined, and was eventually made subservient to a superior officer, who was called Marcell de bataille, or field marshal, whose duties corresponded with those of the French adjutant general in the present times.

There have been officers of the same denomination both in Spain and Germany, who did the duty of Marshals de Camp; another term, we presume, for field marshal. But the general field serjeants in those countries were divided into two classes; one class was confined, in its functions, to the infantry, and the other to the cavalry; and both acted independently of one another, whereas in France they acted together.

According to the present establishment of the French army, there is a serjeant major belonging to each company. The serjeant majors of a regiment, or of an arm of the old French service, were what are now simply called majors, majors of regiments, or town majors. The senior sergeant of every company is called serjeant major in the French army at this time. In the British army the serjeant major is the head of the non-commissioned officers, and though sometimes attached to a company, is generally a detached staff officer. See SERJEANT MAJOR.

SERGERTER, Fr. A word frequently used by the French in a figurative sense, signifying to press, to impel. On n'aime pointe à tire sergent; one does not like to be pressed; or as we familiarly say, to be dragged into a thing.

SERHUD, Ind. A boundary, or frontier.

SERGEANT, in war, is a non-commissioned officer; SERJENT, Fr. Interior officer in a company or troop, and appointed to see discipline observed; to teach the private men their exercise; and to order, and form ranks, files, &c. He receives the orders from the serjeant-major, which he communicates to his officers. Each company has generally four serjeants.

SERJEANT-Major. The serjeant-
major is the first non-commissioned officer in the regiment after the quarter-master in the English army. He is, in fact, an assistant to the adjutant.

It is his peculiar duty to be perfect master of every thing which relates to drills; and it is always expected, that he should set an example to the rest of the non-commissioned officers, by his manner, soldier-like, and business-like activity.

He must be thoroughly acquainted with all the details which regard the interior management and the discipline of the regiment. For this purpose he must be a good penman, and must keep regular returns of the serjeants and corporals, with the dates of their appointments, as well as the roster for their duties, and rosters of persons only duty and commands, as far as relates to the number which each troop or company is to furnish. He is in every respect responsible for the accuracy of these details. He must look well to the appearance of the men, and order such to drill as he sees awkward, slovenly, or in any way irregular. If it be meant as a punishment, he specifies the time for which they are sent to drill: if only for awkwardness, they remain there until their faults are removed.

When he has occasion to put a non-commissioned officer in arrest, he must report him to the adjutant.

It is the duty of the serjeant-major, under the direction of the adjutant, to drill every young officer who comes into the regiment in the manual and marching exercises; to instruct him in the slow and quick marches, in wheels, 

He reports regularly to the adjutant the exact state of the awkward drill, 

It is scarcely necessary to observe in this place, that the good or bad appearance of a regiment, with or without arms, depends greatly upon the skill and activity of the serjeant-major; and that he has every inducement to look forward to promotion.

Quarter-master SERJEANT. A non-commissioned officer who acts under the quarter-master of a regiment; he ought to be a steady man, a good accountant, and to be well acquainted with the resources of a country town or village.

Pay-SERJEANT. An honest, steady, non-commissioned officer, (who is a good accountant, and writes well) that is selected by the captain of a company in the infantry, to pay the men, give out rations, and to account weekly to him, or to his subaltern, (as the case may be) for all disbursements. He likewise keeps a regular state of the necessaries of the men, and assists in making up the monthly abstract for pay, allowances, 

Covering SERJEANT. A non-commissioned officer who during the exercise of a battalion, regularly stands or moves behind each officer, commanding or acting with a platoon or company. When the ranks take open order, and the officers move in front, the covering serjeants replace their leaders; and when the ranks are closed, they fall back in their rear.

Drill SERJEANT. An expert and active non-commissioned officer, who, under the immediate direction of the serjeant-major, instructs the raw recruits of a regiment in the first principles of military exercise. When awkward or ill-behaved men are sent to drill, they are usually placed under the care of the drill serjeant. This non-commissioned officer will do well to bear constantly in mind the following observations from page 135, Vol. I. of the Règlements pour l'Infanterie Fratricale.

"In teaching young recruits their first duties, the greatest caution must be observed not to give them a disgust to the service, by harsh treatment, angry and impatient words, and much less by blows. The utmost mildness must, on the contrary, be shown, in order to endear the service to them; and the several parts of exercise must be taught them by degrees, so that they become insensibly acquainted with the whole of the discipline, without having been disgusted in the acquirement. Rustics and strangers must be used, with extreme lenity."

The principle of kind conduct is not less worthy of the officers of a free nation like the United States; a generous but firm conduct is always better calculated to assure good discipline, than violence or brutality. Men learn sooner, learn better, and like what they learn when treated as men, not as brutes. There yet prevails too much of the barbarity of the British and German systems in the American army.

Lance SERJEANT. A corporal who acts as serjeant in a company, but only receives the pay of corporal.

White SERJEANT. A term of just ridicule, which is applied to those ladies who, taking advantage of the uxoriousness of their husbands, and neglect their household concerns, to interfere in military matters.

SERMENT, Fr. Oath, Prése SERMEN, Fr. To take an oath.

SERPE, Fr. A bill hook.

SERPE d'armes, Fr. An offensive weapon; so called from its resemblance to a pole axe.

SERPENTEAU, Fr. A round iron circle, with small spurs, and squibs attached to them. It is frequently used in the attack and defence of a breach. It likewise means a fusee, which is filled with gunpowder, and is bent in such a manner, that when it takes fire, it attains a circular rapid motion, and throws out sparks of light in various directions.

SERPENTEAU et serpenteau brochet, Fr. A species of lardon or fusee, which is garnished or loaded upon a stick or spire that is a third or the length of the cartridge.
an officer has obtained permission to quit the army, keeping his rank. By which means he has been enabled to return into the service, and to take advantage of his original standing. A very meritorious officer, of high rank at present, was permitted to retire in this manner. There have been instances of officers retiring not only with their rank, but with a certain allowance from the regiment.

Infantry Service. Service done by foot soldiers.

Cavalry Service. Service done by soldiers on horseback.

FAIRE SON SERVICE, Fr. To do one's duty.

Faire de Service, chez le roi. To do duty at the palace.

Service likewise means tour of duty, or routine of service.

Service de l'Infanterie en marche, Fr. The regular duties, or routine of service which an infantry regiment goes through when it receives orders to march. These are, the general, la géniale ou le premier. The assembly, l'assemblée. The troops, le drageau ou le dernier.

Service des places. Fr. The regular duty, or routine of service, which is performed in fortified towns or places. Of this description are garrison duties. See l'Estat sur la science de la guerre par Montalemon baron D'Espagne, tom. iii. p. 355, and les Éléments Militaires, tom. ii. p. 116, where specific regulations on this head may be seen. We likewise recommend to the perusal of every engineer and artillery officer, a late valuable publication, entitled Essai Général de Fortification et d'Attaque et Défense des places.

Service de campagne, Fr. Field duties: This subject has been ably treated by several French writers, and among others by the author of les Éléments Militaires, biv. ii. p. 116, &c. and in tom. iv. p. 62, &c.

A letter of Service. See Letter.

Home Service. In a military sense, the duty which is done within the limits of the United States. This term is frequently used to distinguish such troops as are not liable to serve beyond specified limits, from those that have been raised for general service, as the militia in the several states of the union.

Foreign Service. Military duty, or service done abroad.

Secret Service. Any service performed by an individual, in a clandestine secret manner. It likewise means intelligence, or information given by spies when countries are engaged in war, for which they receive pecuniary compensation. Secret Service money. The reward, or compensation which is given for secret intelligence.

SERVICEABLE, capable of performing all necessary military duty.
SERVICES. Pecuniary disbursements, or payments which are made for military purposes.

*SERVIR.* Fr. To serve the cannon.

*SERVI* *ARTILLERIE.* Fr. To serve the artillery.

SET. To set a sentry. Poster une sentinelle.

SET UP. To place a soldier at any particular spot for its security.

SET ON. To attack. (Attaquer, Fr.)

SET AT DANCE. To set forward, is contrary to every true principle of movement, and must, therefore, be most carefully avoided. By the new principles nature is consulted, and instead of teaching one man awkward positions, fifty or an hundred are taught at once to move in an easy and natural manner.

SETTENDY. Ind. The militia.

SETTER. In gunnery, a round stick to drive fuzes, or any other compositions, into cases made of paper.

SHAFT-RINGS. See Rings.

SEUIL. Fr. A threshold.

SEUIL DE PONT LOUIS. A thick piece of wood which is laid cross-ways between two stakes at the bottom of the water, for the purpose of supporting the flood-gate.

SEUIL DE DÉTENTE. A thick piece of wood, with a groove, which is fixed on the edge of the counterscarp of a fosse or ditch, in order to bear the weight or pressure of the draw-bridge, when it is lowered.

SETENDY. Ind. The militia.

SETTER. In military architecture, a drain, conduit, or conveyance, for carrying off water, foliage, &c.

SEWER. In military architecture, a drain, conduit, or conveyance, for carrying off water, foliage, &c. It is necessary that every building have conveniences for discharging its refuse water, and other useless and offensive matters. These are obtained by digging and laying sewers and drains at proper depths, and with the necessary outlets: the great care is, that they be large enough; that they be placed sufficiently deep, and have a proper descent; that they be well arched over, and have so free a passage, that there be no danger of their choking up; the cleaning them being a work of trouble and expense.

Instead of making the bottom of the sewer a flat floor, it should be in the form of an inverted arch, answering in part to the sweep of the arch above. Every one knows, that a free passage is through circular channels; and these might easily be constructed so as to wear that form; they would resemble so many water-pipes of a circular base, and there would be no danger of their filling up. The perpendicular walls would not retain any thing, because there are no angles in their joining; and the bottom being round and free, all would run off. These circular sewers are with us called culverts.

SEX-ANGLE. Having six angles.

SEXTANT. (Sextant, Fr.) In mathematics, an instrument which serves to measure angles. It is the segment of a circle, or an arch of 60 degrees, which makes the sixth part of a circle.

SEYMAR-BANY, or first lieutenant general of the Janizaries. An officer among the Turks who not only commands the Janizaries that are called Segmenis, but when the Aza, (which signifies chief guardian, and Aga-si, chief or guardian,) takes the field, who further takes the title of Kaymekan, or his lieutenant at Constantinople. He is authorised to put his own seal upon the different dispatches which he sends, and takes rank of all the sadars or colonels in his jurisdiction. He is likewise entrusted with the entire direction and management of all that concerns or relates to the interior government of the Janizaries.

SHAKEE. Ind. A small coin, of the value of about three-pence.

SHAKE. Ind. A city.

SHALE. Fr. Bridge, embankment.

SHALT, an arrow; a missile weapon.

SHANT, in mining; a narrow, deep perpendicular pit.

SHAFTS OF A CARRIAGE. Are two poles joined together with cross bars, by which the hind horse guides the carriage, and supports the fore part of the shafts; the hind part turning round an iron bolt.

SHAFT-BARS. Are two pieces of wood to fasten the hind ends of the shafts together, into which they are pinned with wooden pins.

SHALLIE. Ind. The same as batty, which signifies rice in the husk.

SHAMROCK. The Irish word for trefoil, clover, or three-leaved grass. It is worn by the Irish in their hair on the 17th of March, St. Patrick’s day.

SHANK. The long part of any instrument.

SHAROCK. Ind. A silver coin, equal in value to about one shilling.

SHIAMARI, Ind. A canopy of cotton cloth.

SHAW. Ind. A king.

SHAWZADA. Ind. The king’s son.

SHEED. Ind. A witness.

SHEICK. A chief of a tribe among the Arabs. Mr. Moirier, in his account of a campaign with the Ottoman army, relates that in 1800, a hostile sheick, who pretended to be inspired, headed the Feliains, (the lowest class of inhabitants so called among the Arabs) of the district of Damenbour, and caused an detachment of 80 Frenchmen to be put to death in the night; this was effected by first securing the sentinel.
SHELLS, in gunnery, are hollow iron balls to throw out of mortars or howitzers with a fuze hole of about an inch diameter, to load them with powder, and to receive the fuze at the bottom, or part opposite the fuze, is made heavier than the rest, that the fuze may fall uppermost; but in small elevations this is not always the case, nor is it necessary; for, let it fall as it will, the fuze sets fire to the powder within, which bursts the shell, and causes great devastation. The shells had much better be made of an equal thickness, for then they burst into more pieces. The following shells may also be fired from guns.

- Hand grenades from 6 Prs.
- 4.5 shells — 12 Prs.
- 5.5 shells — 24 Prs.
- 8 inch — 69 Pr. canonsales.

Shells may likewise be thrown from guns to short distances, in case of necessity, though the bore be not of a diameter sufficient to admit the shell. For this purpose the gun may be elevated to any degree that will retain the shell upon its muzzle, which may be assisted by a small line going from the ears of the shell round the neck of the gun. To produce a greater effect, the space between the shell and the charge may be filled with wads or other substance.

**To find the weight of a shell of iron.**

Take 9.64 of the difference of the cubes of the external and internal diameters for the weight of the shell.

**To find how much powder will fill a shell.**

Divide the cube of the internal diameter of the shell in inches by 17.3, for the pounds of powder.

**To find the size of a shell to contain a given weight of powder.**

Multiply the pounds of powder by 3.75, and the cube root of the product will be the diameter in inches.

### Shell Weights and Measures

<table>
<thead>
<tr>
<th>Thickness of Metal</th>
<th>Diameter of Shell</th>
<th>Weight of Shell</th>
<th>Powder for bursting</th>
<th>Powder contained in shells</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 inch</td>
<td>3.84</td>
<td>3</td>
<td>1.72</td>
<td>7</td>
</tr>
<tr>
<td>1.5 inch</td>
<td>4.21</td>
<td>3</td>
<td>2.13</td>
<td>7</td>
</tr>
<tr>
<td>2 inch</td>
<td>4.58</td>
<td>4.3</td>
<td>2.54</td>
<td>7</td>
</tr>
<tr>
<td>2.5 inch</td>
<td>4.95</td>
<td>5</td>
<td>2.95</td>
<td>7</td>
</tr>
</tbody>
</table>

### French Shells

<table>
<thead>
<tr>
<th>Kind</th>
<th>Diameter</th>
<th>Weight</th>
<th>Powder for bursting</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 inch</td>
<td>21.62</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>5 inch</td>
<td>25.2</td>
<td>28</td>
<td>12</td>
</tr>
</tbody>
</table>

Example. Let the diameter of the shell be 13 inches, and that of the hollow sphere 9.5. Then the cube of 13 is 2197, and that of 9.5 is 857.357; the difference is 1339.64, its double is 2679.28, which multiplied by 7, gives 1874.05; and cutting off two places in whole numbers, the result is 187 lb. or 1 cwt. 2 qr. 2 lb. the weight of the shell.
Shells are likewise sometimes quilted into grape. See the word Shot.

For the method of proving shells, see Proof.

The Germans do not name their shells from the diameter of the bore which receives them, but from the weight of a stone ball that fits the same bore as the shell. Thus, a 7 lb. howitzer admits a stone ball of that weight; the shell for this weighs 1.5 lb., and answers to the English 5 1/2 inch. The 30 lb. howitzer shell weighs 60 lb. and is rather more than 8 inches in diameter.

Shells were, till lately, made thicker at the bottom than at the fuze hole; but are now cast of the same thickness throughout, and are found to burst into a greater number of pieces in consequence.

Shells, Sutliff, are nothing more than howitzer shells, in the inside of which a letter, or other papers, are put; the fuze hole is stoped up with wood or cork, and the shells are fired out of a howitzer, either into a garrison or camp. It is surmised that the person to whom the letter is sent, knows the time, and accordingly appoints a guard to look out for its arrival.

SHELL. A particular part of a sword, which serves as a shield to the hand when it grasps the hilt. The British regulation sword, which is directed to be worn in a cross belt, has its shell so constructed that one side can fall down, by which means the hilt hangs more conveniently.

SHELL. A short jacket without arms, which was worn by light dragoons, and in some instances by the infantry, before the new regulations took place, respecting the clothing of the British army. At the commencement of the present war, some militia colonels derived no inconsiderable emolument from this mode of dress.

SHERISHERTAIR, Ind. A word which corresponds with Saturday.

SHERISTA, Ind. An office; a regiment; seedhatar, a linguist or secretary.

To SHIFT. In a military sense, to change place or station. Hence, to shift quarters. In the exercise, &c. of a battalion, officers commanding divisions are, upon particular occasions, such as marching past, &c. to shift from the right to the left, to conduct the heads of files, or the pivot flanks, in column or echelon. Whenever officers shift, they must pass briskly by the rear, and never along the front of the division. The covering sentries always move with them.

The SHILLINGS. A phrase in familiar use among British army brokers, to express a certain profit or per centage which they gain in the sale, purchase, and exchange of commissions. The regulated price of a company in any regiment of foot being 1500/, only, that sum can be lodged at an agent's, or a banker's; but if the company be what is called in the market, the broker who transacts the business, receives one shilling in the pound, and in order to produce this premium, the purchaser gives 15 guineas, out of which the shillings amounting to 7s. are paid to the broker, leaving the net regulation untouched.

Head-quarter SHIP. The ship on which the commander in chief of an expedition is embarked, and from which signals are made for the commanding officers, adjutants, &c. of corps, to attend.

Hospital SHIP. The ship in which the sick and wounded soldiers, &c. are taken care of on expeditions, and during sea voyages.

Prison SHIP. A ship appropriated for the reception of prisoners of war, &c.

SHUCCA, Ind. Any letter written by the king.

SHOOKREWAR, Ind. A word which corresponds with Friday.

SHOOTING. See GUNNERY and PROJECTILE.

SHORTEN, your bridle. A word of command used in cavalry, viz.

1st. Seize the upper end of the reins of the bridle, which is to lie on the right side of the horse, with the right hand.
SHO SHO 635

Square pile. Multiply the bottom row by the bottom row + 1, and this product by twice the bottom row + 2, and divide by 6.

Rectangular pile. Multiply the breadth of the base by itself + 1, and this product by 3 times the difference between the length and breadth of the base, added to twice the breadth + 1, and divide by 6.

Incomplete piles. Incomplete piles being only frustrums, compute first the whole pile as if complete, and also the small pile wanting at top; and then subtract the one number from the other.

Rules for finding the dimensions and weight of shot.

The weight and dimensions of shot or shells might be found by means of their specific gravities (see the word GRAVITY) but they may be found still easier, by means of the experimented weight of a ball of a given size, from the known proportion of similar figures, namely, as the cubes of their diameters.

1st. To find the weight of an iron ball from its diameter. An iron ball of 4 inches diameter weighs 9 lb. and the weights being as the cubes of their diameters, it will be as 9, (the cube of 4,) to the cube of the diameter of any other ball to its weight.

2d. To find the weight of a leaden ball. A leaden ball of 4 inches diameter weighs 17 lb. therefore, as the cube of 4 is to 17, (as 9 to 2 naturally,) so is the cube of the diameter of any leaden ball to its weight.

3d. To find the diameter of an iron ball. Multiply the weight by 7 - 9 and the cube root of the product will be the diameter.

4th. To find the diameter of a leaden ball. Multiply the weight by 9, and divide the product by 2, and take the cube root of the quotient for the diameter.

Triangular pile. Multiply the base by the base + 1, this product by the base + 2, and divide by 6.
Table of grape shot, for sea and land service.

<table>
<thead>
<tr>
<th>Kind</th>
<th>Weight of each shot</th>
<th>Total weight of the grape complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 pounders</td>
<td>lbs. oz. 40</td>
<td>lbs. oz. 30</td>
</tr>
<tr>
<td>21</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>13</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>38</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Small shells, as 4 2.5 inches, and hand grenades were quoted into grape for 13 inch mortars at Gibraltar. The fuses were turned inwards next the iron tinc- tion, and leaders of quick match for com- munication. Fire to the fuses were intro- duced through holes made in the wooden bottom, and placed as near the fuses as possible in the centre of the grape. These answered very well for short ranges.

Hist. shot.—The powder for this with hot shot must be in strong flannel car- tridges, without any holes, lest some grays should remain in the bore, in putting the cartridge home. Over the powder must be rammed a good dry wad, then a snug one, and then the hot shot, and if the gun lays at a depression, there must be a wad over the shot, which may be rammed home. If the above precautions be fol-
tended to, the gun may be pointed after being loaded, without the smallest danger, as it is well known that the shot will grow cold in the gun, without burning more than a few threads of the wads next it. This is not the mode usually taught of loading with hot shot, but is that which was practiced during the siege of Gibraltar. Mr. Durand proposes putting the shot when heated, into a tin-canister, as an effectual method of preventing accidents. The grats usually made for heating shot will generally make them red hot in three-fourths of an hour.

SHOULDER. The upper part of the blade of a sword is so called. The shoulders of regimental sword-blades, for the infantry, should be one inch broad at least.

SHOULDER of a button. In fortification. See ERRAT.

SHOULDER belt, so called because it hangs over the shoulder, to carry the breast or sword; it is made of strong leather.

To SHOULDER. In a military sense; to lay over the shoulder, or to rest anything against it. Hence to should on a musket.

SHOULDER arms. A word of command which is used in the manual exercise. See MANOE.

Right SHOULDERS forward. Two LEFT SHOULDERS forward. 5 terms of command in the British service, when a column of march (in order to follow the windings of its route) changes its direction in general, less than the quarter of the circle. This is a clumsy translation of the line of science, or oblique facing of the French system; the proper word of command is half or quarter face to the right or left.

SHOOF, Ind. A banker; a money-changer, or one who keeps a shop for the accommodation of the public in pecuniary matters, and who derives considerable advantage from the circulating medium of other people's property.

SHOFFING, Ind. The act of ex- changing and sorting money.

SHOUMER TREEPUT, Ind. Arowal, acknowledgment, confession.

To SHUT. To close; to make not open.

SHUT PAES. A word of command used in the inspection of arms. Place the inside of your fingers against the back part of the hammer, and bring it briskly to one motion. In opening pans, you place the thumb against the inside of the hammer.

SHUTERNAL, Ind. A sort of aquaebass, which is fixed upon the back of a camel.

SICK and SALT. A word so called, to which the agents, commissaries, &c. belonging to the several military hospitals in Great Britain, are responsible.

SIDE-pieces of gun-carriages. See CARRIAGES.

SIDE-strap, in a field carriage, are flat iron bands which go round the side-pieces, in those places where the wood is cut across the grain, to strengthen them near the centre and the trail.

SIEGE, (Siege, Fr.) The position which an army takes, or its encampment before a fortified town, or place, for the purpose of reducing it. The term comes from siege, which signifies seat, chair, &c. Hence to set down before a place, sanguine in a military sense, to choose a position from which you may commence the necessary operations to attack and yet possession of it. The French use the word generally as we do.

To undertake the SIEGE of a town. Entreprendre le siege d'une ville. To invest it, to form lines of circumvallation, to open trenches, &c.

To lay SIEGE to a town, (faire le siege d'une ville, Fr.) To draw your forces round a town, for the purpose of attacking it.

To carry on a SIEGE, (continuer un siege, Fr.) To persevere by regular approaches, &c. in gaining ground upon the garrison.

To lay close SIEGE, (presser le siege, Fr.) To approach close to the walls for the purpose of making a breach and storming, or of starving out the garrison. For a full and scientific explanation of the different methods, which are adapted in modern times, for the attack or defence of places, particularly of sieges, see État Général de Fortification, d'attaque et defense de places, tom. 1, page 91, &c. &c.

SIEGE braquage, Fr. An expression used among the French, to signify the prompt and immediate movement of a besieging army, against a fortified town or place, without waiting for the regular formation of lines, &c. In this case the troops make a vigorous attack upon all the outworks, and endeavour to make a lodgment upon the counterscarp. When they have succeeded, they instantly throw up temporary lines, &c. behind them, in order to secure a retreat, should the garrison force them to quit their ground.

SIEGE, in the art of war, is to surround a fortified place with an army, and approach it by passages made in the ground, so as to be covered against the fire of the place.

The first operation of a siege is investing. The body of troops investing a town should, at least, be as strong again as the garrison; so as to be able to divide itself into several parties, in order to take possession of all the avenues leading to the place. By day they should keep themselves out of cannon shot; but as soon as it is dark they must approach much nearer, the better to be able to support each other, and tovatl the town.

General phra ses and terms used at a SIEGE are, &c.

To besiege a place. See SIEGE.

To accelerate the SIEGE, (Presser le Siege,
When an army can approach so near the place as the covert-way, without breaking ground, under favor of some hollow roads, rising grounds, or cavities, and there begin their work, it must be perfectly flanked from the covert-way and the half-moon, &c. so that it may be of no service to the enemy, in case he gets possession of it.

Batteries at a siege, cannot be erected till the trench is advanced within reach of the cannon of the place; that is, within what is generally understood to be a point-blank range, which is reckoned about 300 toises, or 1000 feet.

Cannon is made use of at a siege for two different purposes; the first to drive away the enemy from their defences; and the second, to dismount their guns. To produce these two effects, the batteries should not be above the mean reach of cannon-shot from the place; there being no possibility of constructing them, till the first parallel is formed; and as the distance of the first parallel from the second is generally 300 toises, the batteries must be on this line, or beyond it, nearer the town.

The construction of batteries belongs to the officers of the royal artillery, who generally consult with the engineer that has the direct on of the siege, as well about their situation as about the number of their guns and mortars. They must be parallel to the works of the town which they are to batter. It is customary to place the mortars, batteries, and gun-batteries side by side, and in the same line, to the end that they may batter the same parts. The use of both is to demolish the enemy's works, to dismount their guns, to penetrate into their powder magazines, and to drive the besieged from their works and defences; as also to ruin and destroy the principal buildings, by setting fire to the town; and to fatigue and distress the inhabitants in such a manner, that they shall press the garrison to surrender.

To turn a siege, is to give over the attack of a place, quit the works thrown up against it, and the posts formed about it. If there be no reason to fear a sally from the place, the siege may be raised in the day-time. The artillery and ammunition must have a strong rear guard, lest the besieged should attempt to change the rear; if there be any fear of an enemy in front, this order must be altered discretionally, as safety and the nature of the country will admit.

To form the siege, or lay siege to a place, (Mettre le Siege a une place, Fr.) there must be an army sufficient to furnish five or six reliefs for the trenches, pioneers, guards, convos, escortors, &c. and all the apparatus belonging; magazines furnished with a sufficient quantity of all kinds of warlike stores; and a general hospital, with physicians, surgeons, medicines, &c.

To raise a siege, (Lever le Siege, Fr.) is to go privately out of a besieged town, fall suddenly upon the besiegers, and destroy part of their works, spike their cannon, and do every other possible damage. A sally, a secret movement which is made out of a besieged town or place, by a chosen body of troops, for the purpose of destroying an enemy's out-works, &c. Sallies are seldom made when the garrison is weak; for although they molest the enemy, and keep him on the alert, yet the chance of losing men renders it prudent to keep within the works.

Saps in a siege, are trenches made under cover from the fire of the place, behind a mantlet or studded gabion: they are generally ten or twelve feet broad. This work dflies from the trenches, in as much as the latter are made uncovered. The sap has also less breadth; but when it is as wide as the trench, it bears the same name. There are various sorts of saps, viz.

Single sap, is that which is made on
SIEGES are, 1st. The approaches should be made without being seen from the town, either directly, obliquely, or in the flank.

2. No more works should be made than are necessary for approaching the place without being seen; i.e. the besiegers should carry on their approaches the shortest way possible, consistent with being covered against the enemy.

3. All the parts of the trenches should mutually support each other; and those which are farthest advanced, should be distant from those that defend them above 120 or 150 toises, that is, within musquet shot.

4. The parallels, or places of arms the most distant from the town, should have a greater extent than those which are the nearest, that the besiegers may be able to take the enemy in flank, should he resolve to attack the nearest parallels.

5. The trench should be opened or begun as near as possible to the place, without exposing the troops too much, in order to accelerate and diminish the operations of the siege.

6. Care should be taken to join the attacks; that is, they should have communications, to the end that they may be able to support each other.

7. Never to advance a work, unless it be well supported; and for this reason, in the interval between the 2d and 3d place of arms, the besiegers should make, on both sides of the trenches, smaller places of arms, extending 40 or 50 toises in length, parallel to the others, and constructed in the same manner, which will serve to lodge the soldiers in, who are to protect the works designed to reach the third place of arms.

8. Take care to place the batteries of cannon in the continuation of the faces of the parts attacked, in order to silence their fire; and to the end that the approaches, being protected, may advance with great safety and expedition.

9. For this reason the besiegers shall always embrace the whole front attacked, in order to have as much space as is requisite to place the batteries on the produced faces of the works attacked.

10. Do not begin the attack with works that lie close to one another, or with rentant angles, which would expose the attack to the cross fire of the enemy.

Sives required for a month's SIEGE are as follows:

Powder, as the garrison is more or less strong 8 or 500,000 lb.

Shot for battering pieces 6,000

2. of a lesser sort 20,000

Battering cannon 80

Cannons of a lesser sort 40

Small field-pieces for defending the lines 24

Mortars for throwing shells 24

Shells for mortars 15 or 16,000

Hand-grenades 40,000

Leaden bullets 150,000

Matches in braces 10,000

Flints for musquets, best sort 100,000

Platforms complete for guns 100

Platforms for mortars 60
Spare mortars, rams, and
sponges, rammer, and
too s to work in trenches. 40,000
Several hand-jacks, rams, s lodges, carts,
timber, and all sorts of miner's tools,
mantlets, stuffed gabions, fascines, pickets,
carts, and saboons.

SIEGE, Fr. The plur. of sien, blit, her's or one's own. This word is used among the French, to signify the same as gent, men, people, soldiers; viz., general suit abandoned par les siens. That general was abandoned by his own soldiers.

SIEGE, a small piece of brass or iron which is fixed near to the muzzle of a musquet or pistol, to serve as a point of direction, and to assist the eye in levelling.

SIGN, a sensible mark or character, denoting something absent or invisible. At the trace of a foot, the hand-wring or mask of a man; also the subscription of one's name.

Sign Manual. The king's signature is so called. All commissions in the regular army of Great Britain, army warrants, &c., bear the sign manual. The appointments of officers in the volunteers have been so distinguished in the present war. Adjutants only in the militia have their commissions signed by the king; those of the field officers, captains, and subalterns, &c., are signed by the lords lieutenants of counties, or by their deputies for the time being, sanctioned by a previous intimation from the secretary of state, that the king does not disapprove of the names which have been laid before him.

Signal, (Signaux, Fr.) Any sign made by sea or land, for sailors, marines, fighting, &c. Signals are likewise given by the short and long rolls of the drum, during the exercise of a battalion.

Signal, in the art of war, certain sign agreed upon for conveying intelligence, where the voice cannot reach. Signals are frequently given for the beginning of a battle, or an attack, usually with drums and trumpets, and sometimes with sky-rockets, &c.

Signal of attack or assault, (Signal d'une attaque, ou d'une assaut, Fr.) This signal may be given in various ways. By the discharge of a lighted shell, by sky-rockets, by colors displayed from a conspicuous spot, &c. In 1747 marshal Lowendal made use of lighted shells or bombs, when he laid siege to the town of Berg-op-Zoom. During the consternation of the inhabitants, which was excited by a continual discharge of these signal shells, the grenadiers entered a practicable breach, and took the town by storm.

Signal flags in ancient military history, was a signal flag hung out of the admiral's gallery; it was sometimes a red emblem or banner. During the elevation of this the fight continues, and by its direction or inclination towards the right or left, the rest of the ships were directed how to attack their enemies, or retreat from them.

Signals made by the colors of an army, (Signaux des enseigne, Fr.) The auxiliaries had recourse to all the various methods which could be used by signals, to express the particular situation of affairs, and to indicate measures that should be adopted. If, during an engagement, victory seemed inclined more to one side than another, the colors belonging to the victorious party were instantly bent towards its yielding antagonist. This signal was conspicuous to the men, and excited them to fresh efforts. They imbued the hopes of success, and eagerly pressed forward to reap the advantages of bravery and good conduct.

When an army was hard pressed by its enemy, the colors of the former were raised high in the air, and were kept in a perpetual flutter and agitation, for the purpose of conveying to the soldiers, that the issue of the battle was still doubtful, and that nothing but courage and perseverance could determine the victory. If, in the heat of action, any particular regiment seemed to waver and give way, so as to cause an apprehension that it might finally be broken, its colors were instantly snatched out of the bearer's hands by the general or commanding officer, and thrown into the thickest of the enemy. It frequently happened that the men who were upon the point of yielding ground and flying, received a fresh impulse from this act, rallied, and by a desperate effort of courage recovered the colors, and restored the day. This method of reanimating their legion was generally reserved to the Romans. We have had instances in...
modern times, where the fortune of the day has been wholly decided by some
sudden and unexpected act of an individual. In former times, large pieces of wood
were hung above the towers of cities or castles, which, by being drawn up or
drawn down, gave intelligence of what passed. This method has been succeeded by
invention of telegraphs, which answer every purpose of communication, when
they can be established through an extent of country. At the battle of Plevna, the
French employed baloons, to which cords were attached, able officers elevated
by means of irons, and sometimes of leather, or wood; sometimes flat, and sometimes

fires lighted upon eminences during the night, and by smoke during the day.

In former times large pieces of wood were hung above the towers of cities or
castles, which, by being drawn up or lowered, gave intelligence of what passed. This method has been succeeded by
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Not the advantages which arise from the use of signals confined to these par-
ticular cases. Various circumstances grow out of the desultory nature of military
operations, to render flags of communication indispensably necessary. The vast
scope which is given to modern tactics, makes it impossible that the human eye
or voice should take in all the critical movements which occur, when an extended line is actually engaged.
The right wing may be giving way while the left is gaining ground, and the centre
might be in danger while the two flanks were rapidly advancing with apparent se-
curity against the enemy. Under these circumstances a general, by means of com-
unicating signals, might be enabled to provide for every contingency, without
losing time by sending his orders verbally.

Although signal flags, in modern engage-
ments, have been generally laid aside, their use has been acknowledged in the
adoption of warlike instruments, which, by the variety of their sounds, convey
the necessary directions to an engaging
army.

The ancients had signals which they called "muse signals, signaux mutes."—
These consisted in certain actions or signs that were made by a general; such as
waving the hand, brandishing a stick or sword, or by exhibiting to view any part
of his dress, accoutrements, &c. Instances of the same kind have occurred among
the moderns. Under this denomination may likewise be classed the different sig-
als which are made for the movements, marching, and manoeuvring of troops in
and out of quarters. When troops are scattered or separated from one another,
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SIG 641

SIG 641
Hollow or twisted; which is put upon the nose of a horse, to forward the suppling and breaking of him.

SILENCE, (Silence, Fr.) This word is used by the French as a caution to soldiers to prepare for any part of the military duty or exercise. The French have likewise another term which corresponds with our word attention. See Garde. We use Attention in both instances.

SILLATIS, Fr. See Spanis.

SILLAGE, Fr. The wake of a ship; the trace which a vessel leaves astern when she moves forward.

SILLON, in fortification, is a work raised in the middle of a ditch, to defend it when it is too wide. It has no particular form, and is sometimes made with little bastions, half-moons, and redans, which are lower than the works of the face, but higher than the covert way. It is more frequently called envelop, which see.

SIMILAR polygons, are such as have their angles severally equal, and the sides about those angles proportional.

SIMPLIFY. This word has been adopted amongst men of business and arrangement, from the French simplifier, which means to relate the bare matter of fact. This signification likewise reaches every species of analysis, &c. Thus the act of taking the new moral over the old, is owing to the reduction of the latter into fewer motions and words of command, by which that exercise has been considerably simplified. The obsolete facings, under the denomination of quarter facings, half facings, of uncle files; the half wheelings, quarter wheelings, and half quarter wheelings of sections, platoons, divisions, and battalions, are all more simple in the new discipline than the methods of the old.

SINE. In geometry, a right sine, is a right line drawn from one end of an arch perpendicularly upon the diameter drawn from the other end of the arch. See table of Natural Sines, at the end of the word GUNNERY.

SINGE, Fr. An instrument so called. See Pentagram.

SINGLE combat, a contest in which not more than two are engaged.

SINES, in English, signifies a bay of the sea, an opening of the land; any fold or opening.

SINOIDE, Fr. A geometrical curve, which has been imagined by Monsieur Belidor, for the purpose of balancing or preserving the equipoise of a drawbridge. See Sciences des Ingenieurs, liv. iv. See likewise the specific construction of this curve as explained by the marquis de l'Hôpital, in a book intitled, Antia Eruditorum, published at Leipsic in 1695; and demonstrated by M. Bernoulli, who discovered that this curve was nothing more than the epicycloid, which see.

SIPHON, (Syphon, likewise Cipho, Fr.) In hydraulics, a crooked tube, one leg or branch whereof is longer than the other. It is used in the raising of fluids, emptying of vessels, and in various hydrostatical experiments.

SIRAK, Ind. The government.

SIROC, From Situs, the dog-street. The wind, which we call south-east, is so called in Italy.

SIT. In a military sense, to take a stationary position; as, To sit before a fortified place; to lie encamped for the purpose of besieging it. The French use the word assiéger as an active verb with respect to military matters, viz. assiéger un camp, to pitch a camp. Il assiégea le camp lors de la parade du canon de la ville; he pitched his camp out of the range of the town's cannon.

SIXAIN. Sixth, Sexagesima, in war, an ancient order of battle, wherein six battalions being ranged in one line, the second and fifth were made to advance, to form the van guard; the first and sixth to retire to form the rear guard; the third and fourth remaining to form the main corps. The word is derived from the French, which signifies the same thing. The sixain order of battle may be formed with all the battalions whose number is produced by the number six. Twelve battalions, for instance, may be ranged in order of battle, by forming two sixains, and eighteen battalions, dito by forming three sixains, and so on progressively.

SIZE. In a military sense to take the height of men for the purpose of placing them in military array, and of rendering their relative statures more effective. In all infantry regiments the sizing begins from flanks to centre, the tallest men being placed upon the right and left of the several companies in the front rank, and the shortest in the centre and rear ranks. By the old cavalry discipline the flank troops of a squadron must be sized in the following manner: That of the right flank, from right to left; that of the left flank, from left to right; the centre one from centre to flanks; the tallest man must, of course, be always in the part where the sizing begins, excepting the corporals, one of whom must be on each flank of the front rank of the troop, covered by a clever soldier in the rear rank. If there be only two troops in a squadron, they size the right from the left, and the left from the right flank. The modern practice now is to size all troops from the centre, beginning by sizing from the right, doubling and countermarching a rank.

SKEAN, Celt. A knife. This word is sometimes written skeen, or skewine. It signifies a weapon, in the shape of a small sword or knife, which was anciently worn by the Irish.

SKELETON. This word is frequently applied to regiments that are extremely
Suddenly pulling him back upon his chair, family, danced round the table, and suddenly fixed to the strap, with the ring, being his house whilst he was sitting with his leased from these restraints, and the hook dressed them as savages, entered (not either hand. The setting being re

McKenny, by the season, SO great was the resent-

comfortable billers to the women belong-

perished in consequence of the inclemen-

With great inhumanity, refused to give the ring, they together form

One Walker, a magistrate in Canada, having during the American war to the British 28th regiment of foot, and which took its origin from the following circumstance: One Walker, a magistrate in Canada, having during a severe winter, with great inhumanity, refused to give contumacious billets to the women belonging to the 28th, and some of them having perished in consequence of the inclemency of the season, so great was the resentment of the corps, that some officers dressed themselves like savages, entered his house whilst he was sitting with his family, danced round the table, and suddenly pulled him back upon his chair, cut off both his ears. They instantly disappeared. The deed was not discovered until after their departure. For this circumstance, and in consequence of various intrepid actions which the 28th performed during the course of the war, the men obtained the name of slashed.

SLEAVE, in military architecture, a kind of bluish fossil stone, very soft when dug out of the quarry, and therefore easily slit or sawed into thin long squares, to serve instead of tile for covering of all kinds of military buildings, &c.

SLAUGHTER, destruction by the sword, bayonet, and firearms.

SLIDE, or sled, a large iron-headed hammer.

SLEETS, the undermost timbers of a gun or mortar-battery. See PLATFORM.

SLIGHT, destruction by the sword, bayonet, and firearms.

The gun sling or belt is made in the following manner:

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with very little assistance from either hand, and is instantly brought to a firing position. The next position is by hooking the same hook to an eye that is fixed to the stock, about seven inches behind the guard; the barrel being at the same time supported by the strap, which is hooked to the main belt. The musket is thus carried without the assistance of either hand; and if there be occasion to fire at a moment's notice, you have only to draw out the top hook.

**Sling.** A missile weapon made by a strap and two strings; the stone is lodged in the strap, and thrown by loosing one of the strings.

**To Sling,** to hang loosely by means of the strap belonging to a firelock.

**Sling your firelocks.** A word of command formerly used in the exercise of British grenadiers.

1st. Bring the sling with the left hand opposite to the right shoulder, and the firelock with the right hand opposite the left shoulder, by crossing both hands at the same time, bringing the left hand within the right, keeping the muzzle upright, the barrel to the left, and the right hand just under the left elbow.

2d. Bend the firelock back, and bring the sling over your head, placing it just above your right shoulder.

3d. Draw the sling with your left hand, and let go the firelock with the right; the stock held by it with the right hand about seven inches behind your sides at the same time.

**Handle your slings.** 1st. Seize the sling with both hands at the same time, taking hold of it with the right hand about the middle, and as low as you can reach, without bending your body.

2d. With the left hand bring the butt forwards, slipping your left elbow under the firelock, by bringing it between the firelock and the sling; taking hold of the firelock at the same time with the left hand, letting the stock lie between the thumb and fore finger, the butt end pointing a little to the left with the barrel upwards.

3d. Bring the firelock to lie on the left shoulder, and the sling on the right, the barrel upwards, and the butt end pointing directly to the front, keeping the firelock to a true level.

**Slopet Arms,** a word of command by which the musquet rests upon the shoulder with the butt advanced. In long marches soldiers are sometimes permitted to slope arms. In all other instances it is strictly forbidden.

**Sloping Swords,** a position of the sword among cavalry, when the back of the blade rests on the hollow of the right shoulder, the hilt advanced.

**Slopes.** See Necessary, SLOP.

**Slow time.** See time of slow marching.

**Slugs.** Cylindric, or cubical pieces of metal, used as shot for guns.

**Sluice gate,** a water-gate, by which a place may be inundated, or the water excluded at pleasure.

**Sluices,** in military architecture, are made for various purposes; such as to make rivers navigable; to join one river to another, which is higher or lower, by means of a canal; to form inundations upon particular occasions, or to drain spots of ground that are overflowed by high tides; they are also made in fortresses, to keep up the water in one part of the ditch, whilst the other is dry; and to raise an inundation about the place when there is any apprehension of being attacked.

**Sluices** are made different ways, according to the uses for which they are intended; when they serve for navigation, they are shut with two gates presenting an angle towards the stream; when they are made near the sea, two pairs of gates are made, the one pair to keep the water out, and the other in, as occasion may require; in this case, the gates towards the sea present an angle that way, and the others the contrary way. The space included by these gates is called chamber.

When sluices are made in the ditches of a fortress to keep up the water in some parts, instead of gates, shutters are made, so as to slide up and down in grooves; and when they are made to raise an inundation, they are then shut by means of square timbers let down into sluices, so as to be close and firm. Particular care must be taken in the building of a sluice, to lay the foundation in the surest manner: that is, to lay the timber, gates, and floors, in such a form, that the weather cannot penetrate through any part, otherwise it will undermine the work, and blow it up, as it has sometimes happened; lastly, to make the gates of a proper strength in order to support the pressure of the water, and yet to use no more timber than is necessary. Those who wish to be thoroughly acquainted with this kind of work, may meet with satisfaction in L'Architecture Hydraulique, par M. Belidor; or in Mr. Baille's practical Fortification.

**Small arms,** musquets, fusils, carbines, pistols, &c.

**Snaffe,** a bridle without a curb bit.

**Snick and snee,** a combat with knives, such as the Dutch carry.

**Sobriety.** General temperance.

In a military consideration, abstinence from an inordinate use of strong liquors. However frequent the deviations from this great and uncommon virtue may be found among soldiers, nothing can excuse or exculpate an officer who should so far forget himself, especially upon service, as to give the least countenance to such excesses, even by an occasional, much less by an habitual delirium of this estimable
quality. Sobriety keeps the head cool, strengthens the nerves, and renders moderate abilities equal to great exertions. Drunkenness, on the contrary, unites the man for the common duties of life, and makes an officer not only contemptible to his soldiers, and dangerous to the cause he has engaged to fight for, but an indirect spur to the enterprise of an enemy, who will soon know how to take advantage of his vice and weakness.

SOC, Fr. A machine made of leather, which is fixed near the stirrup, to receive the end of the standard staff in cavalry regiments. It is likewise called bracer, and is used by the persons who carry the colors either in infantry or cavalry regiments. In the former instance it is fixed to a leathern belt that comes over the shoulder or that is fixed to the waist.

Socket, generally means any hollow pipe that receives something inserted.

Sock of a bayonet. The round hollow part near the bent or heel of a bayonet, into which the muzzle of a firearm is received when the bayonet is fixed.

Sod, pieces of turf with which works are faced.

Sovan, or Savan, Ind. The seventh month. It in some degree corresponds with July and August.

Sol, Fr. Sol, ground.

Solaks. Bowmen or archers belonging to the personal guard of the grand sultan. They are always selected from the most expert bowmen that are among the paars. Their only arms are, the saber, bow, and arrows.

Solbat, Fr. In farriery, sabor, buried.

Soldan. This word is pronounced Swades. It was formerly given to a general who commanded the caliph's army. Saladin, a general under Naïf, king of Damascus, having killed the caliph Kaym, usurped the throne, and assumed the title in 1169; so that he became the first soldan of Egypt.

Soldat, Fr. See Soldier.

Soldat d'ordonnance, Fr. An orderly man.

Soldatesque, Fr. A substantive of the collective feminine gender, which signifies private soldiers, viz., Des mours soldatiques; the ways or manners of a private soldier.

Soldats, Fr. A term among military men, which occurred in Italy, before the military profession became so generally prevalent in Europe. It was usual for men of enterprise and reputation to offer their services to the different states that were engaged. They were originally called Condottieri, or leaders of reputation. They afterwards extended their services,
and under the title of soldiers of fortune sought for employment in every country or state that would pay them.

**Soldier's Friend.** A term in the military service which is generally applied to such officers as pay the strictest attention to their men; granting them reasonable indulgences without injuring the service; seeing their wants relieved; and, above all things, having them punctually paid and regularly settled with. There is much confidence in the multitude when they are justly dealt by, and every soldier fights well under the guidance of a soldier's friend!

**Soldier Officer.** A term generally used among naval men to signify any officer belonging to the land service.

**Soldiership.** Body of military men; soldiers collectively. Soldiers are properly the land forces of a nation or state.

It is in the power of the legislature to fix the establishment according to the exigencies of the times.

**Soldiers,** Fr. A term anciently used among the French, to signify those persons who attached themselves to some particular general or military Knight, whose fortunes they followed, in consequence of being paid and supported by him.

**Soldier,** Fr. Sun. Soldier, an artificial fire-work, so disposed, that when it takes fire, it emits a brilliant light from a fixed center, and resembles the sun at mid day.

**Soleil, Fr.** Sun. Sun, an artificial fire-work made in the shape of the sun, which is so contrived, that it moves in full illumination, either backward or forward, along a rope.

**Soleil, montant, Fr.** An artificial fire-work, so called from its ascending in full illumination, and scattering fire in various directions by a rotary movement. It is likewise called tourbillon de feu: a whirlwind of fire.

**Soleil tournant et girondale, Fr.** An artificial fire-work, which, when set fire to, resembles a sun moving round its axis, and exhibiting the figure of a girondale.

**Solid, (Solide, Fr.)** That body which has all the geometrical dimensions.

**Solid.** A term generally used among the French, to express a specific period of time, or the nature of any thing. A five o'clock soldier.

**Solidarism.** An old French legal term, but now generally used to signify a concentration of good qualities, &c. Thus the French convention declared: Que les armes étaient solidaires de gloire; that the armies had consolidated their glory; meaning thereby, that the victories of one part of the army had been added to the account of the rest.

**Solidity, (Solide, Fr.)** Firmness; density; compactness.

**Solve, Fr.** To melt. Solve likewise signifies a measure in carpentry. It is supposed to be equal to three cubic feet.

**Solveau, Fr.** A small joist; a rolier.

**Solfet.** (Solide, Fr.) The point beyond which the sun does not set; the tropical point, the point at which the day is longest in summer, or shortest in winter. It is taken of itself commonly for the summer solstice.

**Sommers,** in an ammunition wagon, are the upper sides, supported by the staves entered into them with one of their ends, and the other into the side pieces.

**Sommerier, Fr.** A term used among the drivers of mules, to signify the leading animal that has a bell tied to his neck, which they call solliche.

**Sonat, Fr.** Sounding lead, probe, any instrument used to ascertain the nature of soil, &c.

**Sonder, Fr.** To sound, to throw out the lead.

**Sonnant, Fr.** A participle which is frequently used by the French, to express a specific period of time, or the nature of any thing. A five o'clock sonnant.

**Sonre, Fr.** Hard cash. This term was in familiar use at the commencement of the French revolution, when it was found expedient to pay a select body of troops, called the gendarmes, in ready money, whilst the aggregate of the nation took paper currency or assignats.

**Sooder, Ind.** The fourth or lowest
of the original tribes of Hindoos, as they come from the feet of Bruma, which signifies submission. They are obliged to labor, and to serve when called upon.

Sookbar, Ind. Friday.

Sooretheaul, Ind. Statement of a case.

Sordet, Fr. The small pipe or mouth piece of a trumpet.

Sorn, a servile tenure in Scotland, by which a chief or a body of men inlisted themselves under Philip Augustus of France, with the condition that they should receive a certain daily pay in the way of subsistence. Froissart calls all soldiers, who are paid for doing duty, or for going to war, soudjyes.

Soulfle, Fr. The wind of a cannon.

Soulfer its canons, Fr. To scale pieces of ordnance. This is done by means of a moderate charge of gunpowder, for the purpose of cleaning them.

Soulfure, Fr. A cavity or hole, which is frequently occasioned when pieces of metal have been forged too intensely. Cannon balls lose their required weight by flaws of this sort.

Soufre, Fr. See Souflure. Garde, throat.

Soudoyes, Fr. Guard, mouth piece of a gun.

Soudines, Fr. A semi-circular piece of brass which is fixed beneath the trigger of a musquet, to prevent it from going off by accident.

Soudoies, Seo Decamber, Souffrance, Fr. Throat-band of a scabbard.

Soukars, Ind. A general name for the regiments, bands or companies of an army.

Soulevement, Fr. Insurrection, revolt.

Soulever, Fr. To stir up, to excite to insurrection.

Soulever, Fr. To rise, to revolt, to mutiny. Armee s'est soulevée sans son general; the army rose, or mutinied against its general.

Soumettre, Fr. (As an active verb) to submit, to succumb, to overcome, to reduce to submission.

Soumettre, Fr. To submit oneself. To yield.

Soumission, Fr. Submission.

Soumis, Fr. In fortification; to lie under, to be commanded. Thus one work is said to be commanded, ou for soumis, when it is lower than another. The same signification holds good with respect to heights or elevations.

Sound. Any thing audible; noise; that which is perceived by the ear. The experiments are numerous by which it has been found, that sound is audible to the distance of 50, 60, or 80 miles; but Dr. Harne, physician to the king of Sweden, told us, that at the bombardment of Holmia, in 1688, the sound was heard 30 Swedish miles, which make 180 of ours; and in the fight between England and Holland, in 1672, the sound of the guns was heard even in Wales, which cannot be less than 200 miles.

The velocity of sound is 380 yards, or 1144 feet in a second of time, as found by very accurate experiment. The exactness of measuring distances by sound, has been sufficiently proved by measuring the same distances by trigonometry.

The medium velocity of sound is nearly at the rate of a mile, or 5280 feet in 4 2 3 seconds; or a league in 14 seconds; or 13 miles in one minute. But sea miles are to land miles nearly as 7 to 6; therefore sound moves over a sea mile in 5 3 4 seconds nearly; or a sea league in 10 seconds.

Sound flies 1144 feet in one second.

It is a common observation, that persons in good health have about 75 pulsations at the wrist in a minute, consequently in 75 pulsations sound flies about 15 land miles, or 11 1 7 sea miles, which is about 1 land mile in 6 pulsations, and 1 sea mile in 7 pulses, or a league in 29 pulsations.

The velocity of sound does not vary, much, whether it goes with the wind or against it. As sound moves vastly swifter than the wind, the acceleration it can thereby receive can be but inconsiderable; and the chief effect we can perceive from the wind is, that the sound will be louder in proportion to the condensation of the air. Water is one of the greatest conductors of sound; it can be heard nearly twice as far as on land.

Sound, (Sonde, Fr.) An instrument used by surgeons in probing.

To Sound. To betoken or direct by a sound; as to sound the retreat. Hence Soundings. Signals made by any kind of instruments.

Trumpet soundings, practised by cavalry regiments, viz. for duty.

1. Revile.
2. Stable call. For stable duties.
3. Boots and soldiers. When to turn out.
4. To horse. For a march, exercise, or other duty.
5. Draw swords. These soundings.
6. Return swords. § When at the instants of drawing the sword from, and returning it to the scabbard.
7. Parade march.
8. Parade call. For assembling on foot.
10. Serjeants call.
11. Trumpeters call.
12. Order.
13. Dinner call. For men, and for officers.
14. Watering call. To turn out in watering order.
15. Setting the watch.
These duty soundings, according to the circumstances, are given by one trumpet, or by the whole of the quarter, regiment, or camp.

For exercise.
16. March. The squadron, regiment, or line being halted, the trumpet of the commander will accompany the word, to—will advance; and at the word march, the whole will move at a walk.
17. Gallop. Going at a walk, on the signal march, the voice will suflic. The whole will move at a trot, and change pace immediately. The same is to be observed from the trot to the light gallop, and from the gallop to the charge. During the charge itself, the trumpets of all the squadrons that are charging, may sound.
18. Charge. To trot, the whole instantly receive the word trot, and change pace immediately.

For the whole body that is to advance; or line being halted, the trumpet of the supportin~ lines is to rally, the bugle horn, or trumpet, in the place of which the same is to be observed from the trot to the light gallop, and from the gallop to the charge. During the charge itself, the trumpets of all the squadrons that are charging, may sound.

19. Halt. The whole halt on the word of command. After the halt of a retreating body, the proper command will bring it to its proper front.
20. Retreat. The signal of retreat, (which will be often preceded by that of halt) is a general caution for the several words of execution to be given.
21. Rally. The signal to rally, may be continued as long as it is necessary, and be repeated by the trumpets of such parts of the body, as are concerned in the operation, till the end is answered.

These signals are given by the chief commander only of the whole body that is exercised, whether of a squadron, regiment, brigade, or a line; they are not repeated by other commanders; they are addressed as cautions to the commanding officers of the parts of such body, not to the men nor is any movement, or alteration of movement, to take place, but in consequence of the words, march, trot, gallop, &c. &c. rapidly and loudly repeated, the instant the trumpet caution is given.

The signals of movement are so short, that the words of execution may nearly coincide with them. These signals for quick movement, may in regular exercise be given by a person who at the instant of giving them is stationary; but if he leads the body in motion, it is evident that in the gallop, the charge, and the halt, the voice and the eye, cannot be employed, and regulate.

22. Turn out skirmishers. This signal is made by the commander of the whole, if the whole is concerned, otherwise by the commander of such part only as is to execute; if one, or two squadrons only, the voice will suffice. It may be a signal for pursuers after a charge.
23. Call in skirmishers. This signal is made by the commander of the whole, and repeated by the commander of the detachments; for the skirmishers to join their detachments; or it may originally come from the commander of the detachments. On the signal to rally, the whole join the bodies they were detached from.

25. Skirmishers cease firing. This signal is made by the commander of the whole, and repeated (or originally made) by the commander of the supporting detachments, from which the skirmishers are advanced.

Bugle Horn Soundings are different calls which are made by the bugle horn, and bugle horn are sounded, are different calls which are made by the bugle horn, and bugle horn are sounded, for duty and exercise. The following constitute the principal ones. See Art.

26. Rouse, or turn out.)
27. Dinner call.
28. Setting the watch.
29. For exercise.
30. March.
31. Trot.
32. Gallop.
33. Charge.
34. Halt.
35. Retreat.
36. Rally.
37. Turn out skirmishers.
38. Skirmishers cease firing.
39. Call in skirmishers.

For duty.

These soundings are different in their notes, but may be used under the same circumstances.

1st. For duty.
2nd. For exercise.

These soundings, according to their notes, may be orca.

2. ReviUes.
3. Rouse, or turn out.
4. Dinner call.
5. Setting the watch.
7. Trot.
8. Gallop.
9. Charge.
11. Retreat.
12. Rally.
13. Turn out skirmishers.
15. Call in skirmishers.

These signals of the trumpet, and bugle horn, are meant in aid of the voice, but are by no means to be substituted for, or prevent the ordered words of execution.

The bugle horn is always to be considered as the principal military instrument for these soundings, and particularly belong to the line; the bugle horn to riflemen and detached parties.

See Art.

SOURA, Fr. A division; as that of chapter.
SOURD, fr. Literally means deaf, dumb. It is variously applied by the French—viz.

Lantern Sound, Fr. A dark lantern.

Lime Sours, Fr. A file which is made in such a manner, that you may separate pieces of iron without making any noise in the operation. It is likewise used in a figurative sense—to signify a person who says little, but is always meditating something mischievous or injurious to others.

The French likewise say, sours pratiqques; protées ouvertes; secret ou sous-main practices; sous des merves, mers secrets, secret or underhand ways. These terms are always used in a bad sense. In mathematics, the French call those quantities, quantités sours, which are incommeasureable, that is, which cannot be ex-
A sword much lighter than a broadsword, and made both to cut and thrust.

Sourdine, Fr. A little pipe, a snare. It likewise means a small spring, which is fixed in a drum or repeater. The French make use of this word in a figurative sense, to signify, literally, without noise.

Souls, Fr. Literally a mouse. For its application in fortification, see passers. It is likewise used to express want of expedients or resources in critical moments, and the consequent danger of being caught in the snare one is endeavoring to avoid—la souris qui se trouve dans une besace printante, the mouse that has only one hole to run to, is soon caught.

Sous, Fr. A proposition which is used to denote the state or condition of one thing with respect to another which is not, viz., sous tangente, sub-tangent. Sous lieutenant, Fr. Sub-lieutenant. Sous Signer, Fr. To undersign. La Soute, Fr. The powder or bread room. Le pivot.

Soutenir, Fr. In exercise and evolution to turn upon the left foot in like manner as any given line bears towards the fixed point upon which it is directed to rest. The point on which the soldier turns is called the pivot, le pivot.

Sous, Fr. To maintain; as sous le combat, to maintain the enemy's fire.

Soutener le siege, Fr. To hold out in a besieged place.

Souterrains, Fr. Subterraneous passages, lodgments, &c. that are bomb-proof.

Souverain, Fr. Sovereign. The person in whom sovereignty is vested. Le signor.

Sow, in ancient military history, a kind of covered shed, fixed on wheels, under which the besiegers filled up and passed the ditch, sapped or mined the wall, and sometimes worked a kind of trench. It had its name from its being used for rooting up the earth like a swine, or because the soldiers therein were like pigs under cover.

Sowar, Ind. A horseman.

Sowarry, Ind. A retinue, cavalry, &c. the English residents in India say, such a man travels with a large sowarry, meaning a great number of followers.

Spade, (Boche, Fr.) an instrument for digging. See INTRENCHING TOOLS.

Spadron Guard, a guard sometimes used with the cut and thrust sword, and also with the broadsword. It consists in dropping the point towards the right from the outside guard, till it comes under your adversary's blade, the edge being upwards, and your wrist at the same time raised.

Sahi, Persian. A soldier or military man, whence the common Hindustan term Sepah, corrupted by the English into Sepoy.

Spahis, A corps of Turkish cavalry, which is kept in pay by the grand signor. The Spahis do not possess any lands as the Zainis and Timarots are allowed to do. This corps is composed of twelve or fifteen thousand men, and consists of the Situbatis, whose standard or cener is yellow, and of the Spahis Gianiis, who have a red one. When the troops were first formed, the latter acted as servants or batmen to the former: they became a separate class or troop in consequence of their superior conduct on service, and were distinguished in this manner—They are armed with a sabre and a lance, which they call Miras. They likewise make use of a small dart or javelin, called a Certe, with an iron ferrule at one end, which they throw at the enemy with surprising skill; and if they should happen to miss their aim, they can instantly bend from their saddles, and catch it up, whilst the horse is on full gallop. Others again are armed with bows and arrows, and some have pistols and carbines. When the grand signor takes the field in person, he generally makes a present of five thousand aspers to each Spahi. This bounty is called Sadach abkhisaat, or gift to enable each man to purchase bows and arrows.

When the Spahi take the field, they march in rear of their standard; but they do not observe any particular order of route. They divide themselves, on the contrary, into small bodys, and advance in the most desultory manner.

Besides these two troops of Spahis, there are four others in the Turkish service, which are only called upon under circumstances of extreme pressure and emergency. The first is called Sad Veisghi; the standard is red and white. The second is named Sad Vusghi; the standard is green and yellow. The third is styled Sad Gareha; the standard is green; and the fourth, Sad Gareha; the standard is white. All these Spahis receive a daily pay of twelve to twenty aspers; and they are subject to every species of duty. Those are Spahis, called Timaroti, or Timarots, under a sovereign, or supreme power, do not observe, by particular order of:

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SPATS, a small sort of spatter-dash, reach only a little above the ankle, called also half gaiters.

SPEAKING Trumpet, a trumpet by which the voice may be carried to a great distance. It was formerly used in large armies; and even so late as the siege of Gibraltar, when General Elliot, afterwards Lord Heathfield, caused the brigade of command to be given by means of this instrument.

SPEAR, a lance, or long weapon with a sharp point, formerly used as a manual, or massive weapon. See Lance.

SPEND. This term is used at sea of a mast of a ship; when it is broken down by foul weather, it is said to be spent. It is also used in military matters to express the consumption of any thing; as to spend all your ammunition.

SPENT Bulb, (Boulet mort, Balles mortes, Fr.) A cannon or musquet ball, &c. is said to be spent, when it reaches an object without sufficient force to pass through it, or otherwise wound, than by a contusion. Spent balls, however, are frequent of their effects, especially when they hit any of the nobler parts.

SPHERE, &c. A round body of which the centre is at the same distance from every point of the circumference; as is the case with Sphere, Spheres, &c.

SPHERES d'artifice, Fr. Iron hoops with matches, steeped in combustible matter, fixed round them. When there is only one hoop it is called Circle d'artifice; when there are two or three, one within the other, the assemblage of them is called sphere d'artifice, from its resemblance to that figure.

SPHERICAL, Round. SPHEROID, an oblong body, approaching the form of a sphere.

SPIES, in war, are persons employed to give intelligence of what the enemy is doing. They should be well paid; who pays then ill, is never well served. They should never be known to any but the general who employs them, nor should they know one another. When they propose any thing, very material, their persons, or their wives and children, should be secured and kept as hostages for their fidelity. If they are apprehended, they immediately suffer death.

SPIES are found in the cabinets of princes, in the closets of ministers, amongst the officers of an army, and in monasteries. The greatest generals strongly recommend them, whatever expense they may occasion; and indeed a commander had better be in want of many particulars, however necessary, than be destitute of spies. Nothing should be spared to procure them, and even the promises made to them should be observed with the most inviolable integrity. By making a proper use of these necessary creatures, the most secret designs of an enemy may be discovered, the positions his armies are to take, the stations of his fleet, and even the manner in which the former is to be secured by masked batteries, or the latter kept firm with chain moorings; as was the case off Boulogne in 1800.

To SPIKE a gun. This term is chiefly used at sea, and signifies to fasten a quoin with spikes to the deck, close to the breech of the carriages of the greatest gun, so that they may keep firm and close to the sides of the ship, and not break loose when the ship rolls. It is likewise used in military matters to signify the clinching up the touch-hole of a piece of ordnance, so as to render it useless. See To Nail.

SPIKES, in gouty. See Hasp.

SPIN, or to spin hop, is to twist it up in ropes, very hard, for an expedition; by which means it is less bulky, and less troublesome for the cavalry to carry behind them. An expert horsemyn can spin five days forage into a very small compass.

SPIRAL, (Spire, Fr.) In architecture, a curve that ascends winding about a cone or spire, so that all the points thereof continually approach the axis.

SPIRAL Lines, (Ligne spirale, Fr.) A curve line, which makes a circular movement like a screw, perpetually diverging or going off from its centre.

SPIRE, § round the same axis, with a distance between each circle; as the thread of a screw. See Screw.

SPOKES, the bars of a wheel that pass from the nave to the felty.

SPONTOON, a spar formerly used instead of a half-pike, by officers of infantry; when the spontoone was planted, the regiment halted; when pointed forwards, the regiment marched; and when pointed backwards, the regiment retreated.

To SPRAWL, to widen out in an irregular and un Soldier-like manner. This term is chiefly applicable to the cavalry.

SPRAWLING, Loose, unconnected, wide, of each other.

A SPRAWLING charge, a loose and ir-
SPRING. To give vent to any combustible matter upon which gunpowder principally acts by the power of explosion. It is used in springing clogs of commission, &c. The latter are frequently used for the same purposes that sky-rockets, &c. are, viz. to serve as signals when any sudden attack is to be made.

SPRING, in a general acceptation, an elastic body; a body which when bent, or distorted, has the power of restoring itself to its former state. It is in general a piece of tempered metal, which by means of its elastic force, is useful in several machines to give them motion. In a gun lock the springs are distinguished by various appellations according to their several uses, viz.

SPRUCE, or fungous excrescences which grow up. In an old forest, ash trees, firs, &c. These spruces are made of the large mushroom, which constitutes the black match or tinder that is brought from Germany, for lighting fire with a flint and steel. These spunge is made of the large mushroom, or fungous excrescences which grow upon old oaks, ash trees, fir, &c. These are steamed in water, boiled and beaten, and then put in a strong box made of salt-petre, and afterwards dried in an oven.

To SPRING the field. To bring it or any part of it into any ordered position; to the recover, for instance.

SPURGE, (coulouillon, auroussement, griffen, Fr.) A long staff with a roll at one end, covered with a sheep's skin, of the bigness of the bore of a gun, to scout after firing; and to prevent any sparks from remaining. It is sometimes called Mekin, from its artificial texture of hair at the end of the staff.

SPURS, in old fortifications, are walls that cross a part of the rampart, and join to the town wall. SPURS, instruments fixed to the heels of horsesmen, with which they can at pleasure, goad the horse to action.

SQUAD. A diminutive of squadron. It is used in military matters to express any small number of men, horse or foot, that are collected together for the purposes of drill, &c.

To SQUAD. To divide a troop or company into certain parts, in order to drill the men separately, or in small bodies, or to put them under the direction and care of some steady corporal, or lance corporal. In every well-regulated troop or company, the men are squaded in such a manner, that the most minute concern with respect to the interior economy can be instantly accounted for. The following distinct instructions have appeared in print. We quote them the more readily because they not only coincide with our own ideas on the subject, but seem perfectly calculated to preserve good order and discipline. They relate chiefly to the cavalry, but are equally applicable to infantry corps.

Each troop, it is observed, ought to be divided into two squads when under forty. Into three or four when above, according to the number, with an equal proportion of non-commissioned officers in each; and when the eldest is on duty, the charge of the squad falls on the rank in the squad, and so on. First the stables must be divided as equally as possible into these divisions, and the men must belong to the same squad that their horses do: so that the foot and horse billets, and those for the married men's rooms of a squad, go together. The squads must be as distinct and separate as possible; in short as much so as two troops are, never crossing each other.

The stables must likewise be squaded entirely; that is, no one stable should be allotted to two separate squads; for which reason, the proportion of numbers in each squad cannot always be exactly equal. The squad is entirely in charge of its own sergeant, or, in his absence, of the corporal who commands it, with relation to every quarter and stable duty, parades on foot and horseback. The quarter-master, in the cavalry, has, of course, the general inspection of the whole.

When a corporal has charge of a squad, he must not look after his own horse at such times as interfere with this squad duty: he can generally manage to do it at the morning stable, and in the evening he can get it done before the regular hour. On a march, or after a field day, he cannot do it so conveniently, and of course orders another man to do it. When a detachment of an absent troop is in a quarter, it must be attached to a particular troop, whichever may be judged most convenient. It must be considered as a separate and distinct squad, quartered by itself, (as far as it can be, consistent with
the proper quartering of its recruits) and under the command of its own non-commissioned officer, unless the troop to which it belongs cannot spare a non-commissioned officer with it; in which case it must be given in charge to a non-commissioned officer of the troop to which it is attached.

The same rules for squadding hold good on a march, and in all situations whatever; and the list of quarters must be made out accordingly.

The non-commissioned officers must always be kept to the same squad, as nearly as they can be. The policy of this instruction is obvious, as they will thereby be made acquainted with the character of every man in the squad.

Recruits should always be quartered and squadded with old soldiers who are known to be steady and well behaved; and those men that are at all irregular in their conduct, must be separated and distributed in squads which are composed of good old soldiers.

A Similar Squad. The hawk squad consists not only of recruits at drill, but of formed soldiers that are ordered to exercise with them, in consequence of some irregularity under arms.

Squadron. A body of cavalry, composed of two troops. The number is not fixed, but is generally from 100 to 200 men.

Square, (Carre, Fr.) A figure with right angles, and equal sides.

The Square. A particular formation into which troops are thrown on critical occasions; particularly to resist the charge of cavalry.

Solid Square, is a body of foot, where both ranks and files are equal. It was formerly held in great esteem; but when the prince of Nassau introduced the hollow square, this was soon neglected.

Hollow Square, is a body of foot drawn up, with an empty space in the centre, for the colors, drums, and baggage, facing every way to resist the charge of the horse.

Oblique Square. A square which is not at right angles, but represents the figure of an oblong, whose sides are unequal. Thus, as eight companies of equal numbers would form a perfect square, ten make an oblong.

Perfect Square. A square whose sides are equal and at right angles.

The perfect square, in the formation of troops, seems best calculated for military movements and arrangements. Battalions, for instance, which are composed of eight companies, with one hundred rank and file in each, are equal to every species of disposition. It is upon this principle, we presume, that the French have distributed their infantry. British regiments, on the contrary, consist of eight companies, one of which is grenadiers and the other of light infantry, and are so composed that no square of this kind can

be formed. This is manifestly a defect in their system. It is, indeed, remedied by the grenadier and light infantry companies being occasionally detached, or cast into separate battalions; so that the remaining companies, by being split off, may be brought to eight equal parts. Tacticians will perhaps agree with us, that it would be better to have every regiment composed of ten companies, flanked by a subdivision of grenadiers, the whole being so equalized as to produce four equal sides. In this case, the light companies should be formed into separate bodies of chasseurs or riflemen, after the manner of the French.

Shakespeare uses the word square to signify squadrons; but it is now obsolete.

Square Root. In geometry, the square root of any number is that which multiplied by itself, produces the square; thus 4 is the square root of 16.

Square Number. In arithmetic, is when another number, called its root, can be found, which multiplied by itself produces the square; thus 16 is the square number of 4.

Squelette. Fr. is the square root of 16.

Squelette, fr. Literally means a skeleton. It is used by the French, it is by us, to signify the remnant, or incomplete state of a regiment, i.e., La squelette d'un regiment; The skeleton of a regiment.

Squelette, Fr. Likewise meant the skeleton state of a ship, or a ship upon the stocks, and which has only her ribs and first timbers laid in. So that squelettes among the French will apply either to the first organization or arrangement of parts belonging to a work or establishment, before it is completed, or to the remnant of such a work or establishment, after it has been completed. In the first sense of the word cadre, frame, outline, &c. bears the construction of squelettes among the French, as cadre d'un corps. When the British expedition to Quiberon was planned, there were several cadres of this description. They consisted of French noblemen and gentlemen who were to organize the Chouans, and receive appointments according to their several ranks, &c. &c.

Squire. An attendant on a warrior was formerly so called. See Armourer.

Stable. Horse, Ind. That part of the late Tipoo Sultan's cavalry, which was the best armed, accoutered, and most regularly disciplined.

Stadium, (Stadion, Gr.) An ancient Greek long measure, containing 135 geometrical paces, or 625 Roman feet, corresponding to our furlong. This word is formed from the Greek term, which signifies station. It is said that Hercules after running that distance at one breath, stood still. The Greeks measured all their distances by stadia. The Romans had, likewise, their stadia, derived from the Greek, by which they measured distances. The stadium of Rome contain-
STADIUM, among the Greeks signifies also a space of enclosed or open ground, containing that measure, where the public games were run.

STAFF, in military affairs, consists of a quarter-master general, adjutant-general, majors of brigade, aids-de-camp, &c. The general staff properly exists only in time of war. See QUARTER-MASTER GENERAL, &c.

Regimental Staff, are, the adjutant, quarter-master, chaplain, and surgeon, &c.

State of command. See Baton.

The Staff, on British home service, consists in general of

One general commanding a district.
One lieutenant-general.
One major-general.
One deputy adjutant, and quarter-master general.
One engineer.
One assist ant adjutant, and quarter-master general.

The regulated number of aids-de-camp and brigade majors:
One deputy commissary general.
Deputy commissaries general, assistant commissaries general, according to circumstances.

One inspector general of hospitals.

The British staff in India consists of a general staff, station staff, cantonment, and garrison staff; and an hospital staff.

The staff in Great Britain is comprehended under general staff, garrison staff, district staff, and staff belonging to the cavalry depot at Maidstone, and the general infantry one in the Isle of Wight. There is likewise an hospital staff. For an account of staffs in general see Army, Hill.

The Staff of the French has been the main spring of their tactics, and no army can be effective without a good staff.

Staff, the same as Baton; from whence these officers in the suite of generals, and not attached to regiments, are called the staff, a baton being formerly the insignia of office; which is now supplied by other devices, as facings, feathers, and so forth.

Hammer Staff. A piece of leather, which is made to cover the upper part of the lock belonging to a musquet. It is useful in wet weather.

Stamp Duster. Impress laid upon paper in England, that is used for legal or commercial purposes. Proceedings of courts-martial, whether copies or originals, are not chargeable with stamp-duty; nor are the receipts given by officers for their respective pay or allowances.

Stand. The act of opposing; thus troops that do not yield or give way are said to make a stand.

To stand for enemy's fire; to remain with steady firmness in order array, without being discompos ed by the shot, &c. of an opposing enemy.

To stand. To have an erect position. Every recruit should be taught to hold his body in such a manner, that he feels himself firm and steady upon whatever ground he may be placed for the purposes of exercise or parade. See Position without Arms.

To stand well under arms. To be so perfectly master of the firelock as not to be embarrassed, or to be rendered unsteady by its weight, but to be able to preserve a correct relative position of the body through all the changes of the manual and platoon, &c. and during the prescribed movements in parade and field exercises. See Position with Arms.

To stand at ease. To be allowed a certain indulgence with regard to bodily position, with or without arms. See Ease. It is likewise a word of command, as Stand to Ease.

Stamp. This term is frequently used as a caution to some particular part of a line or column. In the first of the nineteen manoeuvres, for instance, the grenadiers are directed to stand fast, while the remaining companies march from their alignment to form close column behind them. When a battalion, drawn up in line, is to move forward in front of its original position from the right, left, or centre, the named division, subdivision, or section, stands fast, and the remaining ones, which have been wheeled backward into column, march towards the inward flank of the standing division, subdivision, or section. On the first of the moving bodies arriving at the inward pivot of the standing one, the latter receives the word march, and the former wheels into the ground. The rest successively do the same. By this method the leading division is spared the trouble of wheeling back and returning again to its original ground.

Standard, that which is the test or criterion of other things.

Standard. A measure by which men enlisted into the British service have the regulated height ascertained.

According to the British regulations and orders published in 1799, the standard for men raised for the heavy cavalry shall be five feet seven inches, and for the light cavalry and infantry five feet five inches; but no recruits are to be taken, even of those sizes, who exceed 35 years of age, or who are not stout and well made.

Lads between 16 and 18 years of age, who are well limbed, and likely to grow, may be taken as low as five feet six inches for the heavy cavalry, and as low as five feet four inches for the light cavalry and infantry. In those regiments which are specially authorized to enlist boys, healthy
STANDARD, in war, a sort of banner or flag, borne as a signal for the joining together of the several troops belonging to the same body.

The standard is usually a piece of silk 1½ feet square, on which is embroidered a crest, device, or cypher, of the country. It is fixed on a lance eight or nine feet long, and carried in the centre of the first rank of a squadron of horse, by the cornet.

STANDARDS belonging to the cavalry. Standards are posted in the following manner:

1. The first with the right squadron.
2. The second with the left; and the third with the centre.

In advancing to the front on foot, the advanced standards and their serjeants must not slacken their pace, or deviate from right to left, as the lieutenant-colonel or leading officer may happen to do, but if he be in their way, they must call to him, because they alone regulate the march.

The standards must always be brought to the parade by a troop, viz. by that which has its private parade nearest to head-quarters. They must be accompanied by as many trumpeters as can conveniently assemble with that troop. — Swords must be drawn, and the march sounded. The cornet makes, of course, with that troop to receive the standards. The standards are received by the regiment or squadron at open ranks, with swords drawn, officers saluting, and the march sounding by the remaining trumpets. They must march off from head-quarters, and be lodged with the same form.

STANDARD Bearer, he who carries the standard; a cornet, ensign, &c.

STANDARD-HILL, a hill in England so called because William the conqueror set up his standard on it, before he joined battle with Harold.

STANDING. Settled, established, not temporary.

STANDING army. An army which is quartered upon a country, and is liable to every species of duty, without any limitation being fixed to its service. The life and foot guards form a part of the standing army of Great Britain. The militia, but not the volunteers, may be partially considered as such: the adjutant, non-commissioned officers, and drummers being in constant pay, and a third of the quota of men, together with all the officers, being called out once a year to be exercised for 28 days.

STANDING. Rank; condition. It likewise signifies length of time. An officer is of very old standing in the army.

STAPLES, are hoops of iron, or bars pointed and bent so as to be driven in at both ends.

STARS, chamber. A chamber in Westminster so called from its roof being painted with gilt stars. It has been proverbially odious to the English nation, on account of the encroachments which were made upon the constitution of the country during the reign of Charles the first.

STATE, in fortification. See FORT and FORTIFICATION.

STATE. Condition of any thing; as a weekly state of a regiment, &c.

STATE of a detachment. The difference between the state of a corps or detachment, and a mere return of the same, consists in this, that the former comprehends the specific casualties, &c. that have occurred; whereas the latter gives an abstract account of the officers and men, in a more general and comprehensive manner.

The word state is likewise used to express the condition of every thing belonging to the equipment of a regiment; as, state of arms, accoutrements, &c.

STATICS, (Statique, Fr.) A branch of mathematics, which considers weight or gravity, and the motion of bodies arising therefrom. Those who define mechanics to be the science of motion arising from gravity, others again say, that statics should be the doctrine or theory of motion, and mechanics the application thereof to machines.

STATION, in geometry, a place pitched upon to make an observation, or to set an angle, or the like.

STATION. See POST.

STATIQUE, Fr. See STATICS.

STATISTICS. According to the author of a late work, statistics are that comprehensive part of municipal philosophy, which states and defines the situation, strength, and resources of a nation. They constitute a kind of political abstract, by which the statesman may be enabled to calculate his finances, as well as the economy of his government; and they are equally useful in ascertaining the military resources of a country.

STATES, round and flat, used in ammunition and other waggons or cars, are round and flat sticks between the soldiers and side-pieces, also in common and scaling ladders.

STAYS, in truck carriages, are the
iron which are fixed one end under the fore axle-tree, and the other to the side-piece, to the form of an S.

STEED. A horse either for state or war.

STEEL, particularly applied, it means strip or armor.

STEGANOGRAPHY, the art of secret writing, or of writing in cyphers, known only to persons corresponding, and much used in war.

STENOGRAPHY, (Secretographie, Fr.) See Stereography.

STEP. (Pas, Fr.) Progression by one removal of the foot; it likewise signifies pace.

To step. To move forward or backward, by a single change of the place of the foot.

To step out. To lengthen your pace.

To step short, is to diminish or slacken your pace. On the word, step short, the foot advancing will finish its pace, and afterwards each man will step as far as the ball of his toe, and no further, until the word forward be given, when the usual pace of 24 inches is to be taken. This step is useful when a momentary retardment of either a battalion in line, or of a division in column, shall be required. See Am. Int. Lle.

To step out, is to lengthen the step to 30 inches, by leaning forward a little, but without altering the cadence. It is also called the charging step, or accelerated pace. This step is necessary when a temporary exertion in line or front, is required; and is applied both to ordinary and quick time.

These phrases are frequently used in military movements, when it is found necessary to gain ground in front, or to give the rear of a column a time to acquire its proper distance. The officer who leads a head division should be particularly attentive, when he is ordered to step out or step short, especially in the difficult wheelings, not to lose the precise moment when either may be thought expedient; and in marching in open column, every successive officer should watch the reasonable moment, after a wheel, of preserving his relative distance.

To step off, in a military sense, to take a prescribed pace from a halted position, in ordinary or quick time, in conformity to some given word of command or signal.

Stepping off to music. In stepping off to music, or to the tap of the drum, it will be recollected, that the word of command is the signal to lift up the left foot, and that it comes down, or is planted, the instant the tap is given, or the music completes its first bar, so that the time must be invariably marked with the left foot, and not by the right, as has been practised by the British guards and the artillery, until a recent regulation.

Balancing step. A step so called from the body being balanced upon one leg, in order to render it firm and steady in military movements, &c. Men at the drill should be frequently exercised in this step. The manner in which it is executed is as follows:

At the word march, the left foot is advanced firmly, but without a jerk, the body is kept perfectly erect, the knee straight, the toe pointed out, the shoulders square to the front, and the whole weight of the body bearing on the right foot. Great care must be taken that the foot is thrown straight forwards, and that the shoulders do not go with it. When the men have remained in this position just long enough to make them perfectly steady, the word right, must be given. Upon which the left foot is planted firm, the body quite steady, and while weight rests a plumb upon the left foot; the right foot is of course advanced as the left foot was before, and so on, the feet being thrown forward, alternately, as the words Right, Left. The drill sergeant or corporal must see, that the toe of each man comes rather first to the ground, that he rests on the flat of the foot that is planted, and by no means on the heel, that both knees are straight, and that his arms are kept close to his side without constraint.

When a recruit has been rendered tolerably steady in this step, he must be made to stand on one leg, and move the other to front and rear gently; he must then bring that leg to the ground, and do the same with the other. He must be frequently practised in this until he becomes quite steady on his leg, and has acquired a free motion from his hips without working his body.

Lock Step. See Lock.

The side or closing step. A step which is taken in order to gain ground to the right or left, without altering the front of the battalion, or of closing it to its centre, whenever a chasm occurs in the line after it has wheeled from column, &c. This step is performed from the halt, in ordinary time, by the following words of command:

Mark time.

Side step to the right—March.

Side step to the left—March.

Back Step, (Pas en arrière, Fr.) A step taken to the rear from any position without any change of aspect. The back step is performed in the ordinary time and six inches pace, from the halt, or a given word of command. It will be generally recollected, that a few paces only of the back step can be necessary at a time.

Step Back, March, (En arrière, Marchés, Fr.) A word of command which is given when one or more men are ordered to take the back step according to regulation; quick step, a military step, consisting of 24 inches, of which 10 are to be taken in a minute, making 2½ feet in a minute, which constitutes what is now called common time in marching. The command quick.
March being given with a pause between them, the word mark time is to be considered as caution, and the whole are to remain on the ground dressed in ranks, with the feet in motion at quick time; on the word march, they step off with the left feet, keeping the body in the same posture, and the shoulders square to the front; the foot to be lifted off the ground, that it may clear any stones, or other impediments in the way, and to be thrown forward, and placed firm; the whole of the sole to touch the ground, and not the heel alone; the knees are not to be bent, neither are they to be stiffened, so as to occasion fatigues or constraint. These instructions can only be complied with by means of a sedulous attention not only in the instructor at the drill, but by a constant application of that solid principle which directs, that all movements of the legs should come from the haunches. The legs, indeed, must bend, and the fore parts of the feet must unavoidably be lifted up, but both these natural actions may be done in so correct and quick a manner, that they will scarcely be perceptible. The elan or spring of the instep, if properly managed, will always give a firmness to the tread. The arms are to hang with ease down the outside of the thigh, and a very small motion may be occasionally permitted, to prevent constraint. The head is to be kept to the front, the body to be well up, and the utmost readiness to be preserved. The quick step is the pace to be used in all marches, indeed, must bend, and the for. the good of the whole.

Step is likewise figuratively used to signify promotion. As the next step from a lieutenancy is a troop or company, and from that to a majority; except in the British guards, who have the exclusive privilege of going over this intermediate rank, and stepping into a lieutenant-colonel at once.

To step over. To rise above another. This term is generally used in a bad sense, as young men of interest and connection frequently step over old soldiers.

SIEWARD. One who manages the affairs of others. In all well conducted messes belonging to military corps, certain officers are named to act as stewards, for some specific period. These act conjointly with the treasurer and paymaster for the good of the whole.

SIEGE. Fr. A measure for firewood, which has been adopted by the French, since the revolution. The step is equal to the cubic metre. It is used instead of the acre, and is about half of that measure. The cwt, in decimals, answers to 3,335 litres.

STEREOGRAPHY. The art of drawing the forms of solids upon a plane.

STEREOLOGY. The art of measuring all sorts of solid bodies.

STICK. The same as Baton, an instrument of dignity, which is occasionally carried by persons and officers of high situations, particularly by such as are in waiting near the royal person.

STICKLER. A sidesman to fencers; or second to a duellist.

STILETTO. A small dagger, with a round blade, and sharp point.

STINKPOT. A framework made of fine combustibles, which is used at sieges, &c. See laboratory.

STIRRUPS. Iron hoops suspended by straps to each side of the saddle, in which the horsemen set his feet in mounting or riding.

STOCADO. A push or thrust with a rapier.

STOLE. See order of the stole.

STOCK. The wooden part of a musquet or pistol.

Stock. A part of an officer's dress, which consists generally of black silk or velvet, and is worn round the neck instead of a neckcloth. The soldier's stock is of black ribbed leather, and is part of his small mounting. Red stocks were formerly worn in the British guards; they are still so in some Prussian regiments.

Stock Purse. A certain saving which is made in a corps, and which is applied to regimental purposes. In some corps this fund is so honestly managed, that, without encroaching upon the public, the most beneficial effects are produced; in others again, it is so mysteriously handled between commanding officers and pay-
insists, that it becomes a perpetual source of discontent and jealousy.

**STOMPER, Fr.** To sketch out a design or to draw with a pencil or crayon, a roll of paper which has been pounded into dust. Instead of the pencil or crayon, a roll of paper which is dipped into the colored dust, serves to point the different colors.

**STONES, in military architecture, may be distinguished into two sorts; that is, hard and soft; hard stones are those which are exposed to the open air, such as rocks, and which, when exposed upon the surface of the earth, the soft stone is that which is found in quarries, and under ground. It is undoubtedly true that the hardest stones make the most durable works; but as there is seldom a sufficient quantity to build the whole fortification, the best serve in the foundations, and where the works are exposed to the violence of the waves.

The stones of some quarries are very soft, and easily worked, when first cut out; but, when exposed for some time to the open air, become very hard and durable.

As there is undoubtedly a kind of sap in stones as well as in timber, by which the same sort of stone, taken out of the same quarry, at one season, will mould away any project, but, when dug out in another season, will resist the weather for many ages: stones should always be dug in the spring, that they may have time to dry before the cold weather comes in; for the heat of the sun will extract the greatest part of the moisture, which otherwise expands in frosty weather, and causes the stone to splinter, although it be otherwise hard and good.

As stones lie in the quarries in horizontal beds or strata, (that is, they cleave in that direction) and have likewise a breaking vein, which is perpendicular to the former; both these directions must be observed in cleaning, as well as in raising them out of their beds. Stones that will not easily cleave must be blown up by gunpowder.

**Marble, is of various sorts and colors: the most beautiful of which is exported from Italy. The marble found in England is mostly blackish, and so very hard and difficult to polish, that very little use is made of it, except to burn and make lime. The American marbles are various, and every day produces new discoveries of marbles of the most beautiful colors.**

**Fire- Stone, or Soap Stone, serves chiefly for chimneys, hearths, ovens, furnaces, and stoves; being a dry, porous, gritty stone, which bears the heat without breaking; on account of this quality, it is called **fire-stone.**

**Pebble- Stone, is a hard, gritty stone, and serves chiefly for paving, coping of walls, and for all such other uses where strength is required, it being the most hard and durable stone.**
article ought to be purchased by the surgeon, who is required to keep a book, in which he is to enter the amount of the weekly consumption of each man according to the diet table; and this book, with the diet table, is to be laid before the commanding officer and paymaster every week to be examined and signed by each; and it is of the utmost importance to the welfare of the service, that every commanding officer, and every regimental paymaster, shouldSuperintend the expenditure.

STOPPER. A piece of wood or cork, made to fit the bore of a musquet barrel, which soldiers use in wet weather; and on other occasions, when the piece is not loaded, to prevent moisture and dust from getting into the barrel.

STORES, I. War times, must take care of the stores in the magazines, such as the provisions, forage, &c. receive the same from contractors, and deliver them out to the troops. He has several clerks under him, appointed to the different departments, of provisions, hay, straw, oats, &c.

STOREHOUSE. See Magazine.

STORES, Military, are provisions, forage, arms, clothing, ammunition, &c. Military stores on board transport.—Certain articles of diet which are put on board each transport, are so called. These are to be considered as intended solely for the use of the sick, or convalescents; they are to remain in the charge of the master of the transport, and only to be issued upon demand in writing made by the surgeon from time to time as he shall judge proper; or when there is no surgeon, upon demand of the commanding officer. And the surgeon or commanding officer is to give the master at the end of the voyage, a certificate that his demands for the said medical stores have been made only upon proper occasions, and have not been expended for any other use, than that of the sick, or convalescent.

STORM, in military matters, to make a violent assault on any fortified place or works.

STORMING PARTY. A select body of men, consisting generally of the grenadiers, who first enter the breach, &c.

STRAGGLERS. Men who wander from the line of march. It is the business of the rear guard to pick up all stragglers, &c.

Hammock, F. A sort of ham-mock which is used in hot countries, &c. See Hammock.

STRATAGEM, in war, any scheme or plan for the deceiving and surprising an army, or any body of men. See Surpfix.

STRATAGEMS IN WAR, (Stratagems de guerre, Fr.) Certain feints which are resorted to by able generals, &c. to cover their real designs during the operations of a campaign. It is impossible to lay down any specific rules on this head, as every general, according to the capacity and activity of his mind, makes use of the various means and expedients which grow out of times, circumstances, and occasions. It has been asserted by some writers, that all sorts of stratagems, and those which are connected with treachery may be adopted for the accomplishment of any design. This maxim is, however, strongly combated against by those who have written upon the law of nations—Probit, in fact, and elevation of mind, (which are superior to the pitiful measures of treacherous affiliation or intercourse,) should always bear the ascendancy in human actions. There are stratagems which may be practised and carried on, without the least deviation from honor and good faith. Many distinguished generals have had recourse to these, but none ever succeeded so well as Hannibal.

Wishing to cross the river Rhone, and being in want of almost every article that was necessary to effect the passage in the presence of an enemy who was diligently watching his motions, he caused him to imagine that it was his intention to keep the ground he occupied. He ordered large fires to be lighted up in different quarters of his camp, and directed some of his troops to shout and make loud noises, as if they were perfectly stationary. During this apparent state of inactivity, he broke up his camp, marched up the river side, and crossed it at a place where it was least expected he would make the attempt.

General Washington executed a similar stratagem with success on the British at Trenton; and a very memorable stratagem in baking bread at King's bridge and amusing the British at New York, while he made forced marches with his army for Yorktown, to capture Cornwallis.

Among other good qualities which are indispensably necessary in an able general, that of knowing how to conduct a projected march, and to anticipate the motions of an enemy, is not the least important.

The army under the command of the Duke of Saxe-Weimar, having laid siege to Briac in 1638, the imperialists went to the relief of that place. The duke, on receiving intelligence of their approach, instantly marched against them, with a body of forces composed of Swedes and French allies. The imperialists, who had advanced by rapid marches, had gained possession of an eminence by means of which they would have enjoyed all the advantages of local superiority, had not the count de Guebriam, who was then a lieutenant-general in the Swedish service, suggested a stratagem to dislodge the enemy. The plan was adopted, and it succeeded to the full extent of his design. The drums and trumpets of the different corps were collected together, and stationed in a neighboring wood, so as to draw the whole of the enemy's attention away.
from the quarter proposed to be carried. The imperialists being naturally led to believe, from the noise and concurrence of so many military instruments, that they were going to be attacked from that quarter, best to arms, and left their position in complete order of battle. They had scarcely quitted the eminence, before the duke of Saxe-Weimar appeared in their rear, took possession of the ground which they had so imprudently abandoned, and became master of all the advantages which his enemy would otherwise have enjoyed. An interesting account of this ingenious manoeuvre may be found in the History of Le Marechal de Gueney.

Stratagems of this description have been frequently used by the French during the present war, particularly in Italy. Stratagems, in fact, constitute one of the principal branches in the art of war.—They have been practised in all ages by the most able generals, and have contributed in a great degree, to their military reputation. Virgil, in his Aeneis, book II., says—

\begin{quote}
Datus aut vincit, qui in hoste fortatur.
\end{quote}

The fact of France abounds with instances in which stratagems of every kind have been successfully practised. It may be considered as a peculiar talent of the inhabitants of that country to derive advantages from well concerted feats, &c. in war, and to exhibit their victories more by science than by downright hardihood.

It has been wisely observed, by a French writer, under the article of Stratagèmes de guerre, that a general who is dedicated in a general action, may attribute his failure to fortune, although it is universally acknowledged, that chance or fortune has a very trifling share indeed in pitched battles, while art and science regulate the different movements, and finally determine their issue. Whoever, therefore, suffers himself to be surprised by his enemy, cannot be said to stand wholly exculpated from ignorance or neglect, since it must have been in his power to have avoided the snare laid for him, by means of vigilant spies, and unremitting attention.

This remark appears to us not only to be generally correct, but it seems more immediately applicable to all generals that have secret service-money at command. The influence of that commodity, upon which no embargo can be laid, will be felt in every garrison, town, or sea-port, and those who have the management of it must be dull indeed, if they do not feel their way into the secret preparations of an enemy, before they hazard an attack against him.

Besides the different stratagems which may be used by an able general, to bring about the overthrow of the whole or part of an army, by leading it into an ambush, there are various ones which may be practised against a fortified place. To effect the latter purpose, you may contrive to get soldiers in disguise through the gates at unguarded hours; to introduce them through subterraneous passages, or by any other means that may offer. Before any attempt of this sort is made, every part of the fortifications should be narrowly reconnoitred, and as much knowledge be obtained of the interior situation of the place as can be procured by means of good spies. You must, above all things, be well assured, that the garrison does not strict duty; that the drivers miss their rounds, or go them without system or regularity; that the gates are ill guarded, and the avenues to them ill watched; and that there are certain places or entrances which are not watched at all; for it would be impossible to surprise any place that has been regularly fortified, while the garrison did its duty.

If it should appear practicable to surprise a town by taking advantage of the negligence of the sentries, &c. at some particular gate, previous means must be taken to introduce some soldiers dressed like market women, or in the garb of some religious order. You may then contrive to get a wagon or curt, seemingly loaded with hay or straw, but with soldiers concealed beneath it, so placed in the entrance of the gate that it will serve as an obstacle when it may be found necessary to shut it. In order to do this effectually, let a pin be taken out, so that the wheel comes off, or the axle tree gets broken. The instant this is done, the soldiers who had entered the town in disguise must join the drivers, the men that have been concealed in the wagon get out, and the whole must rush upon the port-guard.

While this happens, the troops that have been placed in ambush round the fortifications, will advance with promptitude and firmness, and endeavor to get possession of the town before a sufficient force can be collected to repel the attack. In the year 1789, a rabble from Courtray took advantage of the carelessness of the imperial troops who were in garrison at Gand, in Flanders, and by seizing upon the gate and port-guard, brought about a temporary rebellion in the country. This indeed was done without stratagem; but the circumstance proves this, that when the centers of a fortified place are negligent in their duty, a surprise is always practicable. We are precluded by the limits of our undertaking from going more fully into this important branch of military science. Several treatises have been written on the subject. Among others one appeared in 1759, intituled Stratagèmes de Guerre, illustrating from history the various stratagems which had been practised by some of the ablest generals during a long period of time down to the peace of
Aix-la-Chapelle. It was published by M. Carlet de la Ronsière, an officer in the French service, and acting engineer in the isles of France and Bourbon. It contains much curious matter. See Am. Mil. Lit.

**Stratagem and force united.** Count Turpin, page 43, vol. I. in his essay on the Art of War, judiciously remarks, that when an enemy, superior in force, is in possession of a pass, from which he cannot be dislodged but by art, stratagem and force should be blended together as often as possible. Onosander, the Greek general, set fire to a wood which was at the foot of a mountain in the enemy's possession, and which he wanted to go over; the flames and smoke forced the enemy to abandon it, and leave the passage free for him.

**Stratarithmometry.** In war, the art of drawing up an army, or any part of it, in any given geometrical figure; and of expressing the number of men contained in such a figure, as they stand in order of battle, either at hand, or at any distance assigned.

**Straw.** According to the British regulations, published by authority in 1799, relative to the forage, &c. which troops are to receive in the bivouac or encampments, it is directed, that straw is to be allowed at the rate of one truss of 36 pounds to each pailasse for two men, being a full bedding; at the expiration of sixteen days to be refreshed with half a truss to each pailasse; at the expiration of 32 days to be removed, and a fresh bedding of one truss to be given, and so on every succeeding period of sixteen and thirty-two days.

For the sick in the hospital, the straw is to be changed as often as it may be deemed necessary.

Two trusses per troop or company are to be allowed for batmen, or servants, not soldiers; and three trusses per troop or company for the washerwomen, to be changed every sixteen days, not having paillasses.

Thirty trusses of straw per troop or company are allowed on first taking the field for thatching the women's huts.

Regiments, not having paillasses, are allowed straw at the following rates:

On taking the field, two trusses of 36 pounds each to every five men, at the end of eight days to be refreshed by one truss, and at the end of eight days more to be refreshed again by the same quantity. At the end of twenty-four days the whole to be removed, and an entire new bedding to be given, and refreshed as before, viz. two trusses for every five men.

Four pounds of straw are to be added to the ration forage for the cavalry and artillery horses only.

Six pounds of straw are to be allowed to the general officers and staff, in addition to the prescribed ration of forage. See Regulations.

**Straw.** For straw is a word in the British service, to dismiss the soldiers when they have stacked their arms, so that they may be ready on the first signal given.

**Streaks.** Streaks are the iron bands on the outside of the wheel to bind the felies strongly together.

**Streaks-nails.** See Streeting.

**Street.** See Encampment.

**Street-firing.** See Firing.

**Strelitz.** A Russian word, whose plural number in streety, derived from strelzi, an arrow, in the same language. An ancient militia, which was formerly kept in pay among the Muscovites both in time of peace and in time of war, was so called. The men who composed it always served on foot, and were originally armed, as their name indicates, with bows and arrows. They afterwards received musquets or flintlocks, and laid aside the bow and arrow. The rest of the Russian army, which was only called together in cases of emergency, retained the bow, arrows, and lances; with which each soldier armed himself according to his own particular whim or notion.

In the remote periods of the Russian empire, the straitzy were the only regular body of troops that formed any part of the standing army of that country. It consisted of twenty or twenty-four thousand men, who enjoyed a multiplicity of privileges and immunities, and were quartered in one of the suburbs of Moscow, which is still called Streetyshche Stockholm. From the latitude allowed them, and the peculiar indulgences which these soldiers enjoyed, they might be well compared to the Praetorian bands under the first Roman emperors, and, in some degree, to the Janissaries of Constantinople. They frequently mutinied like the latter, and interfered in the management of public affairs. Their last revolt, however, was fatal to them. It happened in 1698, during the absence of the Czar Peter the first, who, on his return into Russia, broke the whole corps, erased its name from the list of military establishments, and put his troops upon the same footing that those of the rest of Europe were.

The established pay of a strelitz was seven rubles, and twelve combs and bushels of grain every year.

Grain, even in these days, is given as a necessary ration to a Russian soldier, which he bakes or roasts in thin plates of iron, and then reduces to meal, making therewith a sort of dough, called Tabelenberg. Every man always carries a good portion of this subsistence about him, to which he adds a small crust of vinegar. By soaking this meal in water, mixed with a little vinegar, he contrives to make a sort of soup or broth, which the Russians, who are fond of acids, find...
extremely palatable; and by giving it the
consistency of dough, it serves for bread
and meat. When the Russian soldier can
procure a few greens, such as cabbage, etc.,
to mix with his tabaka, he makes a
complete meal, which he calls Clary. A
Schwarzkohl, or small piece of brandy,
makes up the meal to a full repast. It
must be acknowledged, that where sol-
diers can be brought to satisfy the cravings
of nature in this economical manner, great
advantages must be derived, especially in
long marches through an uncultivated or
desert country. We cannot, however,
recommend its adoption except in cases
of urgent necessity, and on services where
there might be a possibility of absolute
want, from the destruction or poverty of
a country into which an army marches.
The fare itself is not calculated to add
vigor and activity to the body, or to
keep alive that promptitude and fire
which are required in military opera-
tions.

STRENGTH. This word may be
variously understood in military matters,
viz.

STR. Fortification; fortress; stronghold. It likewise signifies arna-
ment; power; force. In all returns which
are made of corps, strength implies the
number of men that are borne upon the
establishment, in contradistinction to
effectives, which means the number fit
for service. Hence, the strength of a
division, troop, or company, etc. The
allowance for the repair of arms, etc.,
is issued according to the return which
is made, not of the effectives, but of
the established strength of a troop or
company.

STRICT. Exact, severe, rigorous; the contrary to mild, indulgent. Hence,
a strict officer. It is sometimes used in a
bad sense, to signify a peevish, trouble-
some commander.

To STRIKE. This word is variously
used in military phraseology, viz.

To strike. To attack; toendeavor
to destroy, directly or indirectly.

To strike off. To erase; to blot
out; as to strike off the list of the
army. This can only be done by the order
of the president of the United States.

To strike a tent. In castramen-
tation, to loosen the cords of a tent which has been
regularly pitched, and to have it ready, in
a few minutes, to throw upon a bat - horse
or baggage wagon.

To strike terror into an enemy. To
cause alarm and apprehension in him; to
make him dread the effects of superior
skill and valor.

To strike a blow. To make some
decisive effort.

To strike the colors. This is properly
a naval term, but it may be applied to
military matters on some occasions. Thus
at the battle of Fontenoy, when the Brit-
ished had driven the French out of the field,
Louis XV. who was upon an eminence

in the neighborhood with his guards,
&c., ordered the royal standard to be struck,
from a full persuasion that the day was
lost.

STRIPE. Dr. Johnson calls a stripe
a linear variation of color. Regimental
sword knots are directed to be made of
blue with silver or gold in stripes.

STRUCTURE. (Structure, Fr.) The
manner in which any thing is built. Use
office de bonne structure. An edifice which
is built in a handsome manner.

To STRUGGLE with or against. To
make extraordinary exertion in direct
contest with an enemy, or against superior
forces.

STUC, Fr. Stucco, gypsum or plaster
of Paris.

STUCCATEURS, Fr. The men em-
ployed at stucco work.

SUB. A familiar abbreviation which
is used in the British army to signify sub-
alterne.

SUB-brigadier. An officer in the Brit-
ish horse guards, who ranks as cornet.

SUB-lieutenant. An officer in the Brit-
ish regiments of artillery and fuzileers,
where they have no ensigns; and is the
same as second lieutenant.

SUBA, or Soobah, Ind. A province.

SUBADAR, Ind. The governor of a
province. It likewise signifies a black
officer, who ranks as captain in the Eng-
lish East India company's troops; but
cases to have any command when an
European officer is present.

SUBADARY, Ind. The appointment
or office of a subadar.

SUBALTERNS, (Officers subalter-
es, Fr.) Subaltern officers. This word is
used among the French, as with us, to
signify all officers of a certain inferior de-
gree, viz. Les subalternes, the subalterne.
The term is commonly applied in a regi-
ment to the officers below the rank of
captain, in relation to that officer; but,
strictly, every officer is subaltern to the
grades above him, as the captain is sub-
altern to the major, and so upward.

SUBDIVISION. The half of a di-
vision. Thus a company forms a divi-
sion, divided it forms two subdivisions.
In the British organization, two compa-
nies added together make a grand division;
except the flank companies, which con-
stitute the grand divisions of themselves; but
in actual service, according to the best
modern principles, the division is not
limited to any given number, but must
depend on the strength of the force, and
the skill and discretion of the officer.

DIVISION, in the French system, is
also applied in the same manner as the
term brigade in the English; the French
division consists of several regiments, three or more, up to seven or eight; the general of division is of the same rank as the major general in the British establishment.

SUBURB, Fr. Chief. SUBJECT, (Sujet, Fr.) One who lives under the dominion of another. It is only used in the first instance, as no one can be the subject of a secondary power, although he is bound to obey his orders. Thus soldiers are obliged to submit to the orders of a general, but they are not his subjects. The French make the same distinction.

SUBORDINATION. A perfect submission to the orders of superiors; a perfect dependence, regulated by the rights and duties of every military man, from the soldier to the general. Subordination should shew the spirit of the chief in all the members; and this single idea, which is manifest to the dullest apprehension, suffices to shew its importance. Without subordination it is impossible that a corps can support itself; that its motions can be directed, order established, or the service carried on. In effect, it is subordination that gives a soul and harmony to the service; it adds strength to authority, and merit to obedience; and while it secures the efficacy of command, reflects honor upon its execution. It is subordination which prevents every disorder, and procures every advantage to an army.

SUBSIDIARY troops. Troops of one nation assisting those of another for a given subsidy.

To SUBsist. In a military sense, to give pay or allowance, &c. to soldiers; as an officer of the light company will subsist 20 men belonging to other companies, for so many days during the march. The French do not use the term in the same sense.

SUBSISTANCE des pièces, Fr. This term is used among the French to signify the pay or allowance which is given to the officer, bombardier, and men belonging to the train of artillery who serve the batteries.

SUBSISTENCE, (Subsistance, Fr.) in a military sense the word may be divided into two sorts, viz. That species of subsistence which is found in the adjacent country; such as forage, and frequently corn that is distributed in parcels; and that which is provided at a distance, and regularly supplied by means of a well-conducted commissariat. The latter consists chiefly of meat, bread, beer, &c. To these may be added wood or coals, and straw, which are always wanted in an army. Every general will take proper precautions to have his men well supplied with these first necessaries in life.

SUMMONS. The act of demanding the surrender of a place, or body of men.

SUN, &c. The year.

SUSSEX, Fr. The Swiss soldiers who were in the pay of France previous to the 20th of August 1792, were generally so called. It was also a general term to signify stipendiary troops. Hence point d'argent, point de suisses! which agrees with our cant phrase—No pay, no soldier.

SUIT, or SERIES, Fr. This term signifies generally any regular collection and successive distribution of things. Officiers à la suite, Fr. Supernumerary officers attached to a regiment, &c.; during the monarchy of France, who were not required to do duty with it.

SULPHUR, or brimstone, a volcanic mineral essential in making gunpowder and artificial fire-works.

SULTAN or SULTAUN, Ind. King. The title which was assumed by Tipoo Saib, chief of the Mysore country. Hence called Tipoo Sultaun.

SULTAN shahr, Ind. King of the cast.

SULTAUN, Ind. The decorations or appendages annexed to royalty.

SUNRISE. See BAT-HORSE.

SUBSTITUTE in the militia. A person who voluntarily serves in the room of another.

SUBSTITUTION, Fr. An algebraical term used by the French, signifying to substitute in an equation any quantity in the room of another, which is equal to it, but which is differently expressed.

SUBTANGENT, in any curve, is the line which determines the intersection of the tangent in the axis prolonged.

SUBTENANCE, (Soutenante, Fr.) A geometrical term signifying the base of an angle, that is to say, a straight line opposite to an angle, which is supposed to be drawn from the two extremes of the section that measures it. Likewise the chord of an arch; that which is extended under any thing.

SUBURBS, (Fauxbourgs, Fr.) Buildings without the walls of a city.

SUCCESSION of rank. Relative gradation according to the dates of commissions, or the regulations established.

SUCOUR, in war. Assistance in men, stores, or ammunition.

SUD, Fr. This word is variously used by the French. It signifies in the sea language the south wind and the southern regions; and it signifies in an absolute sense, one of the four cardinal winds which blows from the south. Hence Le Sud, the south wind. Sud est au sud ouest, south east or south west.

SUITE, Fr. The series or train of a battery, or the regulations established.
Another, JcgP,, been converted to private purposes, and pay for some ofience, and others put in one's stead. and this return must be accompanied try

Any person named to do the functions of none of the tnedidnes have, to his know­

Employ them, viz, to

French in the same military sense that we (under cover to the secretary at war,) of

In a strict military sense it means the of. SURCINGLE.

Fr.) Beyond a fixed or stated number. sentation of the case.

It was given by the mogul, it obtained the appellation of Firman.

The number of degree which are wanting in an angle to constitute or make up two angles.

Supplement, Fr. A certain pecuniary allowances, over and above the ordinary pay or subsistence, which was given by the king to officers belonging to the old French service.

SUPPLEMENTAL, (Supplément.

SUPPLEMENTARY, (Su, Fr.)

Additional; such as fills up what is want­

To SUPPLY. Relief of want; making up of deficiencies. A fresh supply of troops, ammunition, &c.

To SUPPLY. To make up deficiencies. To aid; to assist; to relieve with something wanted. To fill any room made vacant. Thus, covering serjeants supply the places of officers when they step out of the ranks, or are killed in action.

To SUPPORT. To aid, to assist; it likewise signifies to preserve unattained, viz. To support the ancient character of the corps.

Well SUPPORTED. Well aided, well assisted. It likewise signifies well kept up, as a weil supported fire from the batteries; a well supported fire of mus­

A certificate, grant, or make up two angles, as complement signifies what it wants of being an entire semicircle; as complement signifies what an arch wants of being a quadrant.

SUPPLEMENT. Addition; augmen­

A substitu- an affidavit taken before amagistrate, that

SURFACE. (Superfice,

Fr.) Out­

To SURFACE. (Superfice,

Fr.)—

A word like- mea:it ot an angle .. fhe number of degrec

A girth with which the saddle or any other burden is bound upon a horse.

SURFACE, in fortification, is that part of the side which is terminated by the flank prolonged, and the angle of the nearest bastion; the double of this line with the curtain is equal to the exterior side.

SURGEON, (Chirurgien, Fr.) A staff officer, who is chief of the medical de­

SURGEON-general. The first or senior surgeon of an army.

Particular instructions to the regimen­

Each regimental surgeon of the line, which was given to an inferior by a superior. An honorary dress,

An honorary dress, which is given to an inferior by a superior. A state or repre­

SURFACE, (Superfice, Fr.) Outline; exterior surface; extent without depth. The curved superficies are divi­

SURFON-geuera/

The first or senior

If an officer is killed or wounded in ac­

If an officer is killed or wounded in ac­

If an officer is killed or wounded in ac­

If an officer is killed or wounded in ac­

If an officer is killed or wounded in ac­

If an officer is killed or wounded in ac­
of the commanding officer, or of the inspector of regimental hospitals.

Should a regiment of the line be placed in an unhealthy situation; or, from any prevailing disease, should the surgeon's stock of a particular medicine be exhausted before the next yearly supply becomes due, he is to apply to the inspector of regimental hospitals. (under cover to the secretary at war) for a fresh supply; the existence of such cause for the extraordinary consumption of the medicines to be certified by the commanding officer. If a medical officer of the line desires to use a medicine not in the dispensatory, he must procure it at his own expense.

Whenever wine is necessary for the sick of a regiment of the line, a return of the consumption thereof is to be made weekly to the inspector of regimental hospitals.

The medical and hospital expenses of the line, and of their respective detachments, are to be inserted in the public accounts of the respective corps.

Every regimental surgeon is to make a report to the inspector of regimental hospitals, of the situation, size, rent, &c. of the hospital he proposes to hire; and unless on very pressing emergencies, no engagement is to be entered into without the permission of that officer, to whom is to be transmitted half yearly, viz. June 24th and December 24th, an abstract of the regimental hospital contingent expenses, approved by the commanding officer of the regiment, accompanied with regular vouchers signed and certified by the paymaster.

When a soldier is punished, it is the duty of the regimental surgeon to attend at the execution of the sentence, and to see that the life of the culprit is not endangered by excessive rigor. He is, in fact, paramount to the commanding officer on this occasion, and ought to interfere whenever his judgment dictates. If any commanding officer should be hard enough to continue the chastisement in spite of the surgeon's interposition, the responsibility will then rest with him.

**Military Surgeon.** The person who acts immediately under the regimental surgeon. In the regulations for improving the situation of British regimental surgeons and mates, which took place in 1796, it is expressed, that surgeon's mates in future are to be styled assistant surgeons, and to be appointed by commission from the king, or by generals authorised by him. For further particulars respecting surgeons and assistant surgeons, see Military Finance, page 46.

**Veterinary Surgeon.** See Veterinary.

**Suptend inent des Fortifications, Fr.** A place of great trust and considerable importance during the old French government. It was his duty to submit plans of places that were to be fortified, or of others that wanted repairing, to give in estimates of the expenses that would attend the works, and to state to the directors the degrees of skill and activity which he had discovered in the different engineers who acted under him. He likewise communicated with the king on every weighty branch of ordnance. His allowance was fifty thousand livres per annum, out of which he gave six thousand livres, or 1200 dufs, to a first clerk, who received the like sum from the king for under-clerks and stationary.

**Su r tance ngt gen e ral des poudres et salp ètres de France, Fr.** Superintendent general of powder and saltpetre magazines of France. An appointment in the old French artillery, which was created in 1574, and paid the Paulette.

**Surnér cd, Fr.** To founder. A term in the French manage, signifying to over-ride or over-work a horse. Hence, un cheval surné en. A jaded horse, or one spoilt by too much work.

**Les Surpentes, Fr.** The slings or strips used in the artillery.

**To Surprise, (Surprendre, Fr.) in war, to fall on an enemy unexpectedly, in marching through narrow and difficult passes, when one part has passed, so as not easily to come to the succour of the other; as in the passage of rivers, woods, enclosures, &c. A place is surprised by troops, &c., contrived to come near the place, to whom they give entrance, and thereby seize it. Soldiers dressed like peasants, merchants, Jews, priests, or women, are sometimes employed for this purpose. The enemy sometimes send in their soldiers, as if they were yours coming from the hospitals, &c., they also dress their soldiers in your regiments, who, presenting themselves at your gate as such, are immediately admitted, seize the guard, and become masters of the place. Sometimes houses are set on fire, and whilst the garrison comes out to extinguish it, troops who lay in ambush, march in, and surprise the place. Officers commanding guards at the principal gates are lured out under various pretences; matters being so contrived that a party seize the gate in coming in with them. Sometimes an alarm is given at one side of the garrison, whilst you enter secretly at the other, which at that time is too often neglected.

**Surprises, (Surprises, Fr.) In a military sense, may apply either to those measures which are adopted by one army in the field to surprise another, or to those which are followed in the attack of fortified places. The French make a distinction between surprises at camps, and surprises at places, or the surprises which are practised against an army in the field, and those which are executed against fortified towns or places. What has been
If during the night, or in the course, in front, and of the road, in order to take them in the of your patrol or scouring detachment, must be placed in ambush along one side, or about the road, or about it, one half when it marches off, whilst the other half attacks them at the instant the rear guard has left the camps, the gates must be shut, and the strictest order be issued to prevent spies or deserters from stealing out. Small parties of cavalry and riflemen must likewise be sent forward, to scour the roads, and to pick up stragglers. Care must be taken to have it understood by the people of the country, that these parties are detached, for no other purpose than to escort some wagons, which are expected for the use of the army, to parley, or apparently to execute some business that can neither create jealousy, nor give uneasiness.

About an hour after, it must be proclaimed, in and about the camp and adjacent country, that no officer, soldier, utter, or inhabitant of the villages, &c. shall on any account go more than one quarter of a league from the army. Small scouting parties, with the provost marshal’s field patrols, must be distributed beyond these limits, in order to pick up stragglers, and to search their persons lest they should be the bearers of letters, &c. A great number of small ambuscades must be laid along the leading avenues between the enemy’s camp and your own. If, notwithstanding all these precautions, you should learn, that the enemy has gained some information respecting your movement, a report must be instantly spread to make him imagine, that you have some other design in contemplation.

If, during the night, or in the course of the day, small reconnoitering parties, belonging to the enemy, should be discovered upon the road, or about it, one half of your patrol or scouring detachment, must be placed in ambush along one side of the road, in order to take them in the rear, whilst the other half attacks them in front, and by thus surrounding them, prevents any intelligence from being carried to the enemy.

When such parties consist of a regular advanced detachment from the enemy’s forces, that challenges you on your approach, your out-scouts must instantly give the name of the power or general against whose troops you have deviated from the direct route or line of march.

If the detachment or corps, that is entrusted with the secret expedition or surprise, be marched out of an entrenched camp, proper precautions must be taken, to prevent any intercourse between the enemy and persons employed to send or receive intelligence. To do this effectively, the instant the rear guard has left the camp, the gates must be shut, and the strictest order be issued to prevent spies or deserters from stealing out. Small parties of cavalry and riflemen must likewise be sent forward, to scour the roads, and to pick up stragglers. Care is taken to have it understood by the people of the country, that these parties are detached, for no other purpose than to escort some wagons, which are expected for the use of the army, to parley, or apparently to execute some business that can neither create jealousy, nor give uneasiness.

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hands of the detachment, and thereby to avoid sharing it with their comrades.—

Patrols must be sent out of the camp, and be posted along the road or roads that lead to the place which has been surprized, with strict injunctions to stop all stragglers; and the quarter and rear-guards of the camp must see, that none enter before the detachment is regularly marched in. When any are found guilty of this omission, they must be severely punished for the sake of the place which has been surprized, and the wound be put upon their hands of the detachment, and thereby to avoid sharing it with their comrades.—

When any are found guilty of this omission, they must be severely punished for the sake of the place which has been surprized, and the wound be put upon their

Before the detachment is regularly marched in, and the wounded be put upon their

horses. But if it be found expedient to make use of the horse, you must then convey the disabled in the best manner you can, by taking all the horses, &c., which may have been found in the place you have surprized.

After a surprise has been accomplished, the troops employed upon that service must, if possible, be marched back to quarters, by a direct road to the one they took in advance against the enemy. For it would be extremely impolitic to expose them even though their number were a third greater than that of the enemy, to a second action; under the most solemn disclaimers of being fatigued with the march, and the attack they had just made, and of being encumbered with the booty, &c., of the place they had surprized. Their retreat must be effected through the shortest way back. But if there should be the least ground to apprehend, that any attempt might be made by the enemy to cut them off, the first movement must be upon the same road they came in by, and when the night approaches, the troops must be suddenly countermarched, in order to take a different road, and to avoid any ambush that might be laid by the enemy.

Under these circumstances, every measure must be embraced to deceive the enemy. Some prisoners may be suffered to escape, before the troops have been countermarched, in order to give false information; some mules or horses may be left on the road, and small parties of drummers, &c., be detached forward to keep beating along the first road, as if the whole body were marching that way. Fires may also be lighted by patrols sent forward for the purpose. Among other means, which may be resorted to, to induce the enemy to believe that the original line of march has been continued, that of sending horses and men forward to molest them by their footsteps is not the worst imagined.

It is more than probable, that if the retreat be made during the night, and through an enclosed or intersected country, the enemy will scarcely run the risk of pursuing, lest ambuscades should be formed to surprise him on his march.

If, notwithstanding all your precautions, the enemy should get intelligence of what has happened, and in consequence thereof be able to collect his forces together in order to attack you in your retreat; under these circumstances a position must be taken that is best suited to the kind of troops you have with you, and to their effective number.

If there be a ford, a bridge, or a defile, near to the ground you have taken up, which the enemy must unavoidably pass, the greatest expedition must be made to get beyond the obstacle, so as to have it securely in your rear. Should the obstacle be upon either of your flanks, a detachment must be posted there to keep the enemy in check, while your main body continues on its march. If you cannot conveniently send forward your booty, for fear of weakening your forces, it must be placed in such a manner as not to be in the way when you find it necessary to engage the enemy.

As soon as the enemy approaches, the whole body must be halted, and the proper dispositions be made for battle. The guard that is entrusted with the care of the prisoners, must instantly strip them of their swords, bayonets, and of every offensive weapon, (supposing them to have had permission to wear them,) and order them to sit down, threatening to shoot or cut down the first man that should presume to stir. By this account, the men who compose the guard, should always be ready to do their duty upon the least symptom of irregularity. A small cavalry detachment is usually employed upon this service, as it would not be in the power of the infantry to act with so much promptitude and activity.

Before the troops are ranged in order of battle, directions must be given for every soldier to take off his knapsack, or haversack; for if the men were allowed to retain this load of baggage and booty, it would not be in their power to act.

History furnishes us with various instances in which fortified places, strong holds, and garrisons, have been surprized. There are others again in which surprises have been practised with success by means of spies, and of secret intercourse with one or more of the party against whom you are engaged. In 1707 several Miquelets disguised themselves as peasants, entered Balvastro, and remained concealed in the houses of some of the inhabitants, who supplied them with arms to enable them to attack the gate of Mons, in order to co-operate with a detachment which was advancing towards that quarter for the purpose of surprizing the place. But they did not succeed; for two regiments which lay in the town to guard the hospitals and magazines belonging to the army, instantly flew to arms, marched against the detachment, and forced them to retreat.—

Had the latter been superior in force, it is
more than probable, that the stratagem used by the Miquelets, and seconded by the treachery of the inhabitants, would have amply succeeded. In 1580, count Egmont, surprised Courtray, by ordering a number of determined good soldiers to get into the town à la débâcle, and to remain concealed in the houses of the Roman catholics. See Stratagèmes de Guerre, page 164, &c. &c. For various interesting particulars that regard the article we have been cursorily discussing, we refer our reader to La Suite de l'art de la science de la guerre, tom. ii. page 25; and to the Art of War, page 173.

As soon as these detachments are returned, others should be sent out for the same purpose, as the quarters should never be uncovered in front. If these detachments hear any thing in the night, the commanding officer should send to discover what it is, and must afterwards convince himself of the truth of it: if it should be occasioned by troops, he will directly send an hussar to the commanding officer of one of the guards, if there are any in the front of the quarters; but if not, then to the commandant of the first quarter, who will apprise the general that is, and must afterwards convince himself of the truth of it: if it should be occasioned by troops, he will directly send an hussar to the commanding officer of one of the guards, if there are any in the front of the quarters; but if not, then to the commandant of the first quarter, who will apprise the general.

To prevent a Surrise. Turpin in his Art of War, observes, that it is not sufficient for the security of the quarters, that they are well distributed, that the guards of horse are posted on the outside, and guards of foot on the inside, and that patrols are also added to them; detachments must be sent out in advance of the guards, in order to make discoveries.

A quarter should never be imagined to be totally secure, whilst there are only guards before it: it would not be difficult for the enemy to come close up to them, particularly if the country is enclosed, either during the day or night, and if it is an open country, in the night time only.

Detachments in advance of the quarters are absolutely necessary, even when there are guards; they should be increased according to the number of the troops, and in proportion to the extent of country to be guarded.

These detachments should march separately in the front, and they should occupy as much country as possible upon the flanks; they must march upon the roads leading to the enemy. In the day time, they must scour the hedges, thickets, and woods, the villages, the hollows, and every sort of place that may serve for an ambuscade; in the night time, they must draw near the quarter, and remain at the distance of at least four hundred paces, and even further if the country is open. In the night, detachments must march very leisurely, not advancing, but crossing each other; and beside the word given out in orders, they will have another particular one to recognize each other. Every now and then they must stop and listen, in order to discover, whether they can hear any thing. The officers commanding the detachments should avoid fighting till the last extremity; they should constantly bear in mind, that the sole purpose of their being ordered to advance, is to preserve the quarters from a surprise.

These detachments should not continue out above six or eight hours, and consequently should never dismount. If there are any hussars in the quarters, they should be employed in these detachments preferably to any other troops, as they are better calculated to scour a country than heavy cavalry, or even dragoons; their horses being more in wind and less liable to be fatigued. It is, besides, the sort of war which is natural to hussars.

To surrender. In fortification, to outflank and cut off the means of retreat. The substantive is new among the French, and comes from Courville, to watchards. See Am. Mil. Law, page 173.

To surrender, (Se rendre, Fr.) To give up a town, post, or other fortification, agreeably to articles, &c.

To surrender, (Se rendre, Fr.) To lay down your arms, and give yourself up as a prisoner of war.

To surrender, (Se rendre, Fr.) The act of giving up. As the surrender of a town or garrison.

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To SURROUND. In fortification, to invest. In tactics, to outflank and cut off the means of retreat.

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ancient art; it is even held to have been the first or primitive part of geometry, and that which gave occasion to, and laid the foundation of all the rest.

Surveying consists of three parts: the first is the taking of the necessary measures, and making the most necessary observations, on the ground itself: the second is, the laying down of these measures and observations on paper: and the third, the finding the area or quantity of ground there laid down. The first is what we properly call surveying; the second, we call plotting, proving, or mapping; and the third, drawing up.

The first, again, consists of two parts, viz. the making of observations for the angles, and the taking of measures for the distances. The former of these is performed by some one or other of the following instruments, viz. the theodolite, circumference, semi-circle, plain table, or compass. The latter is performed by means either of the chain, or pendulum.

The second branch of surveying is performed by means of the protractor, and plotting scale. The third, by reducing the several divisions, inclosures, &c. into triangles, squares, trapeziums, parallelograms, &c. but especially triangles; and finding the areas or contents of these several figures. See American Mil. Lib.

SUSPEND, as a military punishment, was probably intended to operate as pecuniary fining does in that of the common law; but (to use his own words, in his treatise on martial law) it can neither be considered as deprivation or degradation. It does not divest an officer of his military character, though it puts him under a temporary incapacity to exercise the duties of his station; he still possesses his rank, though he does not reap any immediate advantage from it. If, in fact, may be looked upon and considered as borrowed from the ecclesiastical system of jurisdiction, which admitted suspension as a minor excommunication.

One stubborn difficulty, however, seems to present itself from suspension; and that is the article of pay and allowance. For if an officer shall have been suspended from the exercise of the authority annexed to his rank, and to have the pay of his allowance also suspended, he certainly seems warranted to plead such suspension in bar to the proceedings of a court-martial; there being always an implied contract between the soldier and his employer, that in consideration of certain pay and advantages granted by the one, the other shall submit to military discipline; and the obligation being mutual, the subjection to military discipline would seem also suspended. But this difficulty is easily removed, from the circumstances of the officer so suspended, still holding his commission; and from his submitting himself to the punishment which hath been inflicted on his transgression. The latitude of this principle hath even been seen to go farther, and under the sanction of such authority, that since his majesty hath been graciously pleased to direct, in cases of doubt, members of a court-martial shall be guided by their consciences, and the custom of war in the like cases it may be said to establish precedent, which may with safety be appealed to. We here allude to the trial of Lord George Sackville, who, at the time he was put upon the judgment of a general court-martial, had (so dear are the honor and reputation of a soldier) neither military
employ nor commission under his majesty; and yet he was deemed entitled to an awful and solemn investigation of his conduct; application, indeed, have been previously made in his name, and he having declared himself willing to abide by the decision of the court. In a word, then, it may, without risking too much, be asserted, that an officer under suspension may be considered as strictly amenable to martial law for any trespass or transgression he shall commit. The same writer observes, in a preceding page, that suspension is a specific punishment, for a specific crime; but it is a punishment which does not free a man from his military obligations. On the contrary, he still is considered as in the service; he holds his commission, and at the expiration of the term of suspension, becomes a perfect man again. If therefore during the continuance of this chastisement, he should attempt to go over to the enemy, to desert, or hold treasonable correspondence, he certainly is, in such cases, to be dealt with according to martial law. Pages 86, 87, and 88, Thoughts on Martial Law.

The late Mr. Tytler, deputy judge advocate of North Britain, who has published an essay on military law, quotes the case of Lord George Sackville, when he treats of officers under suspension, and agrees in every point with the author just referred to. Suspension, he observes, though it has the effect of depriving an officer of the time of his rank and pay, and putting a stop to the ordinary discharge of his military duties, does not void his commission, annul the military character, or dissolve that connection which exists between him and the sovereign, of whom he is a servant. He retains his commission, and is at all times liable to a call to duty, which would take off the suspension. See Essay on Military law, pages 131, 132.

SUSTAIN. To sustain is to aid, succour, or support, any body of men in action, or defence.

SUTLER and Victualler may be considered as synonymous terms as far as they relate to military matters; most especially when an army lies encamped, or rather takes the field. A suter may be considered as one who follows the camp, and sells all sorts of provisions to the soldiers. There are also sutlers in garrison towns, who serve the soldiers, and are subject to military regulations. Among the French, according to the present establishment of their army, a suter is a soldier or inferior officer, who is authorized to follow head quarters, and to be constantly with the corps to which he is attached. He is permitted to sell the necessaries of life to the soldiers, and under certain restrictions, to deal in wines and spirituous liquors.

The sutlers are usually chosen from the regiments to which they belong, and are subordinate to the quarter masters, after they have been appointed by the regimental committee or council of administration. They receive a licence enabling them to sell and barter, which licence must be approved of by the chief of the quarter major, or staff of the division, in which the corps is stationed, or under which it acts.

The sutlers attending head-quarters are licensed by the quarter-master general. In order to distinguish them from adventitious travellers or pedlars, &c., it is wisely recommended by Paul Thiebault, author of a treatise upon the duties of a sutler, that every travelling sutler should have a particular number, which is to be engraved upon a tin plate, and constantly worn by them, as a mark of their being licensed by the quarter-master general.

When an army moves, the sutlers accompany the baggage. As many irregularities must naturally grow out of this necessary evil, the conduct of sutlers ought, at all times, to be narrowly watched, and severe penalties to be announced in general orders for every instance of unlawful depredation among the inhabitants, or of disorder in their booths. It is the duty of the piquet, at night, to be particularly watchful on this ground.

SUTURE. A manner of sewing or stitching, particularly of stitching wounds.

SWALLOW'S-tail. In fortification, an out-work, differing from a single bastille, as its sides are not parallel, like those of a bastille; but if prolonged, would meet and form an angle on the middle of the curtain; and its head or front composed of faces, forming a re-entering angle. This work is extraordinarily well flanked, and defended by the works of the place, which discover all the length of its long sides, &c.

SWAMMIES, bid. Fegen gods or idols.

SWAMP. See Marsh.

SWAY. The swing or sweep of a weapon. Likewise power, as military sway.

SWEEP-bar, of a wagon, is that which is fixed on the hind part of the fore guide, and passes under the hind pole, which slides on it.

Sweeping. A word which is peculiarly attached to one of the sections or clauses in the articles of war. Hence, Sweeping Clause.

Sweeping Clause or Section. This comprehensive clause states, that all crimes not capital, and all disorders and neglects, which officers and soldiers may be guilty of, to the prejudice of good order and military discipline, though not specifically mentioned in any of the foregoing rules and articles, are to be taken cognizance of by a general or regimental court-martial, according to the nature and degree of the offence, and to be punished at their discretion.

This wisely imagined clause serves as a check to the paltry tricks and subter-
fuges, which are sometimes resorted to by men who are not thoroughly soldiers. It frequently happens, even among officers, that the service is hurt and embarrassed by the ingenuity of evasive characters, who think they are safe, provided they do not glaringly transgress specific rules and regulations. Another advantage is likewise derived from this clause: It enables officers at a court-martial, in cases where the offender is manifestly felt but cannot be brought under any specific article, to do justice to the service by punishing the delinquent under an indisputable clause.

**To SWINDLE**, (Escruger, Fr.) A cant word signifying to cheat; to impose upon the credulity of mankind, and thereby defraud the unwary, by false pretences, fictitious assumptions, &c. This criminal and unworthy practice oftentimes proves successful under the garb of a military dress and character, and sometimes under that of holy orders. The records of Bow-street are filled with pseudo-majors, captains, surgeons, &c.

**SWINDLER**,(Escrur, Fr.) A sharper; a cheat. This word is evidently taken from the German Schwindler, which, we presume, comes from Schwindle, goddess of thought; giddy Sate. See J. J. Eschenburg's English and German Dictionary, Part II, Page 197. With us, however, it signifies a person who is more than thoughtless or giddy. We affix to the term the character of premeditated imposition; so that a swindler comes under the criminal code, and may be prosecuted accordingly. Swindlers almost always assume a military name. Perhaps the army might, in some degree, be rescued from these pretenders, were it ordered that no officer shall appear with any military badge unless he be regimentally dressed; and that when so dressed, he shall have the number of his regiment marked upon the button of his hat, &c.

**SWING-tree of a wagon.** The part placed across the turguide, to which the traces are fastened.

**SWIVEL.** (Flure, Fr.) A small piece of ordnance which turns on a pivot or swivel.

**SWIVELs.** (Tourneigouts de fer, Fr.) commonly called Loop and Swivel, and Guard and Swivel. Two iron rings attached to a musquet, through which the sance passes.

**SWORD.** A weapon used either in cutting or thrusting. The usual weapon of fights hand to hand. It also signifies, figuratively, destruction by war; as the sword and sword; à feut et à sang, Fr.

**Broad Sword.** The Spanish and Scots kind, sometimes called a Back Sword, as having but one edge; it is basket handeled, and three feet ten inches long.

**Recruiting Sword.** The sword which is worn by British officers may be properly called a long cut and thrust. It is a maniest imitation of the Austrian sword, and has been introduced this war.

It is not however, so conveniently used by the British as it is by the Austrians. The latter have it girded round their waists, so that it hangs without any embarrassment to the wearer close to the left hip or thigh; whereas with the British it is suspended in an awkward diagonal manner from a cross belt over the loins, and is scarcely visible in front, except occasionally, when it is drawn or gets between the officer's legs, and sometimes trips him up when off duty. We could exemplify our ideas upon this subject by various known occurrences, such as the sword being suspended so much out of the grasp of the wearer, that his right hand has appeared to run after the hilt, which has as constantly evaded its reach by the left side bearing it off, in proportion as the right turned towards it; by officers being reduced to the necessity of applying to their serjeants, &c. to draw their swords, &c. but it is not our wish to turn any regulation into ridicule. It is, however, our duty, and the duty of all men who write for the public, to point out practical inconveniences, &c. Perhaps it may not be thought superfluous on this occasion to remark, that the sword ought not to be considered as a mere weapon of offence or defence in an officer's hand; for unless that officer should be singly engaged, which scarcely ever happens upon service, the very notion of personal safety will take his mind off the superior duty of attending to his men,—Officers, in fact, should always bear in mind, that they are cardinal points which direct others. Their whole attention should consequently be paid to their men, and not the slightest idea must interfere with respect to themselves. We are therefore convinced, with due deference to the superior judgment of others, that the swords of infantry officers, and of the stuff in general, should be for service, sufficiently long to dress the leading files, &c. and extremely portable. Every officer ought to know the use of his sword, and there should be a fencing-master, or drill swordsman, for every company in the service, who should be armed with sabres or foot cut and thrusts.

**Position of the Sword at open Order.** When an officer stands or marches in front of his company, &c. the position of the sword is diagonal across the chest, with the edge upward. At close order, or when the officer is on the flanks of his company, &c. the hilt is close to the right thigh, and the blade in the hollow of the right shoulder, with the edge to the front. When mounted, he carries it diagonally across the bridle hand.

When troops or squadrons of cavalry advance,—In the walk, the sword is carried with the blade resting on the right arm; in the trot and gallop, the right hand must be steadied on the right thigh, the point of the sword rather inclining forward; and in the charge, the hand is
ward, and crossways in front of the head, and the sword is carried rather forward, with the edge outwards. See Am. Mil. Lif.

SWORDSMAN, (Homme d'épée, Fr.) This word was formerly used to signify a soldier, a fighting man. But at present it generally means a person versed in the art of fencing. Hence a good swordsman, the French use the terms Bretteur and Bretailleur. The former is more immediately applicable to a man who wears a sword and piques himself upon the exercise of it: the latter means a person versed in the art of fencing. Hence a good swordsman.

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SWORDED, Girt with a sword. Sword-belt, A belt made of leather, which hangs over the right shoulder of an officer, by which his sword is suspended on the left side. Sword-bearer, (Porte épée, Fr.) One who bears a sword. It also signifies a public officer.

Sword-curler, (Fourbitisseur, Fr.) One who makes swords.

Sword-knot, (Nœud d'épée, Fr.) A ribbon tied to the hilt of a sword. All officers should wear sword-knots of a peculiar color and make. They are made of blue silk and gold or silver.

SYCOHANT, A dirty, mean, gross creature that sometimes finds its way into the army, and gets to the ear of a superior officer, for the purpose of undermining the good opinion which honest valor and open manhood may have obtained.

SYE, Ind. A long sword.

SYE, al Muh, Ind. The sword of the kingdom.

SYMBOL, In a military sense, badge. Every regiment in the British service has its peculiar badge.

SYMBOLE, Fr. The French make use of this word in the same sense that they apply Emblème. Symbole means with them, in a military sense, what badge does with us.

SYMMETRY, (Symétrie, Fr.) A word derived from the Greek. True symmetry consists in a due proportion, or in the relation of equality in the height, length, and breadth of the parts, which are required to make a beautiful whole, or in an uniformity of the parts with respect to the whole.

SYRTES of tableaux, Fr. Quick-sands.

SYSTEM, (Système, Fr.) A scheme which reduces many things to regular dependence or co-operation. This word is frequently applied to some particular mode of drilling and exercising men to fit them for manoeuvres and evolutions. Hence the Prussian system, the Austrian system, the new or mathematical system, &c. Military System. Specific rules and regulations for the government of an army in the field, or in quarters, &c.

SYSTÈME, (Système, Fr.) In fortification, a particular arrangement or disposition of the different parts which compose the circumference of a town or fortified place, according to the original idea or invention of an engineer. The systems best known under this head, and most followed, are those of Vauban, Cohorn, De Ville, Pagau, &c. See Fortification.
the captains; the different tables were generally composed of eight or ten officers of the same rank. The lieutenants stood together, as did the sub-lieutenants; each paying towards the mess in proportion to the receipt of daily subsistence.

**Tableau, Fr.** A description, a catalogue. It likewise signifies a chimneypiece.

**Tablette, Fr.** A flat thin stone, which is used to cover the outside of a wall belonging to a terrace, or the border of a basin. &c.

**Table, fr.** An ordinary, to keep open house.

**Table en taille, Fr.** In architecture, a table which juts out of the facing of a wall or pavement.

**Table feuillie, Fr.** That which instead of being salient is indented: it is commonly adorned with a border.

**Rusticated Table.** A table which is covered with a cornice, and in which is cut a basso relievo; or a piece of black marble incrustated for an inscription.

**Round Table.** In architecture, an embossment in a frontispiece for the putting an inscription, or other ornament in sculpture.

**Rusticated Table.** In architecture, one which is picked, whose surface appears rough, as in grooves.

**Table.** In literature, an index, a table of contents, at the beginning or end of a book to direct the reader to any passage in it.

**The Round Table.** A table to distinguish military merit, which was first invented by king Arthur, who succeeded his father Uther Pendragon, king of the Britons, who was brother to Aurelius Ambrosius, and third son of Constantine. Arthur was the 11th king of England, from the departure of the Romans, and was crowned about the year 516.

Having expelled the saxons out of England, conquered Norway, Scotland, and the greatest part of France, (where at Paris he was crowned) this monarch re-formed to his native country, and lived in so great renown, that many princes and knights came from all parts to his court, to give proof of their valor in the exercise of arms. Upon this he erected a fraternity of knights, which consisted of twenty-four, of whom he was the chief; and for the avoiding controversies about precedence, he caused a round table to be made, from whence they were denominated Knights of the Round Table. This table, according to tradition, hangs up in the castlet Winchester, where they used to meet at Whitsuntide.

**Tables de marbre, Fr.** A marble table. During the monarchy of France, there were two courts of jurisdictions, which were called Tables de Marbre, or marble tables; one was that of the constable, and the Marshagassie or police of France; and the other that which gave directions for the general clearing of the forests, and the purifying of stagnant waters. They are so called from the meeting being held round a large marble table.

**TABLEAU.** A description, a catalogue. It likewise signifies a chimneypiece.

**TABLETTE, Fr.** A flat thin stone, which is used to cover the outside of a wall belonging to a terrace, or the border of a basin. &c.

**TABLIER, Fr.** A table to keep open house, to cover the outside of a wall belonging to a terrace, or the border of a basin. &c.

**TABLE, Fr.** An ordinary, to keep open house.

**TABER, with one stick to act the part of a small drum, beat without stick.**

**TABOURINE, Fr.** A pipe. It was anciently used in war.

**TASCHER, Fr.** Properly means job, of a regular rate for labor. Workmen are thus hired and paid by the day or by the lump.

**TACKLE.** The weapon or arrow shot from a bow, was so called by the ancient Welsh.

**TACKLE.** A word derived from the Greek, signifying order. Tactics consist of a knowledge of order, disposition, and formation, according to the exigency of circumstances in warlike operations. These dispositions are severally made, or one disposition follows another by means of maneuvers and evolutions. Hence the necessity of paying the greatest attention to the first principles of military art; and hence the absurdity and ignorance of some men, who would pass for great and able tacticians, without having grounded themselves in the elements of their professions. As well might a person assume the character of a complete mathematician under a total ignorance of the first rules.

**General tactics are a combination or union of first orders, out of which others grow of a more extensive and complicated nature, to suit the particular kind of contest or battle which is to be given, or supported.** Let it not, however, be inferred from this, that evolutions or movements and tactics are one and the same. They
are, but there is still a discernable

difference between each of them.

Tactics (or as the French say, La Tac
rique, tactical art) may be comprehended
under this expression; an evolution is
the movement which is made by one
corps among a larger number of corps,
and eventually leads to order. Manœuvres
consist of the various evolutions which
several corps of a line pursue to accom-
plish the same object. The higher
branches of tactics, or la grande tactique,
should be thoroughly understood by all

general officers; it is sufficient for infe-
tor officers and soldiers to be acquaint-
est with evolutions. Not that the latter
are not to be known by general officers,
but that having already acquired a full
knowledge of them, they ought to direct
their attention more immediately to the

formation carefully retaining at the same
time a complete apprehension of the

species of military detail, and thereby obviating
the many inconveniences and embarrass-
ments which occur from orders being
awkwardly expressed to the staff, and
of course understood by the inferior offi-
cers. It may be laid down as a certain
rule, that unless a general officer make
himself acquainted with particular move-
ments and dispositions, and preserve the
necessary recollections, it is morally im-
possible for him to be clear and correct in
his general arrangements. Of all me-
chanical operations, founded upon given
principles, the art of war is certainly the
most considerable, the most enlarged,
and the most capable of infinite variety.
Almost every other science and art are
comprehended in it; and it should be the
constant object, the chief study, and the
ultimate end of a general's reflections.
He must not be satisfied with a limited
conception of its various branches; he
should go deeply into all its parts, be
aware of its manifold changes, and know
how to adapt movements and disposi-
tions to circumstances and places.
It will be of little use to a general to
have formed vast projects, if, when they
are to be executed, there should be a de-
ficiency of ground: if the general move-
ments of the army should be embarrassed
by the irregularity of some particular
corps, by their overlapping each other,
dc., and if through the tardiness of a ma-
neuver, an enemy should have time to
render his plan abortive by more prompt
behaviors. A good general must beware
of all these contingencies, by making
himself thoroughly master of tactics.

The Russian tactics under Frederick the
Great, had for their principal object to
concentrate forces, and thereby choose the
most suitable points to attack an enemy,
not at one and the same time, but one
after another; the tactics which have
been uniformly pursued by the French,
since the commencement of their revolu-
tion, have been founded upon the same
principles; as well as to apply the me-

thod to several points, and to attack all
points with divided forces, at one and the
same time.

Tactics of Europe. The following
observations respecting the tactics of Eu-
rope, may be useful to those who have
not the Am. Mil. Lib.

In the time of the Romans, the Gauls
and other nations on the continent fought
in the phalanx order; it is this order which
still prevails through all Europe, except
that it has been till lately deficient in the
advantages and utility which Polybius
ascribes to it, and is injured, by defects
unknown in the ancient phalanx.

In Turenne's days, troops were ranged
8 deep, both in France and Germany.
Thirty years after, in the time of Friede-
gun, the ranks were reduced to 5: in the
next Flanders war to 4; and immediately
alter to 3, which continues to be the or-
der of the French armies; the ranks of
good troops only are reduced to 2.
This part of the progression from 8 to
3 being known, we easily conceive how
the file of the phalanx had been diminu-
ted from 16 to 8 in the ages preceding
Turenne. It is to be presumed, that this
depth was considered as superfluous, and
it was judged necessary to diminish it, in
order to extend the front. However, the
motives are of very little consequence, since
we are now reduced to three ranks; let us
see what qualities of the phalanx have
been preserved, and what might have
been added there.

To shew that the defects of the pha-
lanx were preferred in Europe, we suppose
two bodies of troops, one of eight thou-
dand men, ranged as a phalanx, six
deep; the other a regiment of three batta-
ions, consisting only of fifteen hundred
men, drawn in three lines, after the
same manner. Those two bodies shall be
perfectly equal and alike in extent of
front, and shall differ in nothing but in
the depth of their files: the inconven-
ciences and defects, therefore, occasioned
by the length of the fronts are equal in
both troops, though their numbers are
very different; hence it follows, that, in
Europe, the essential defects of the pha-
lanx were preserved and its advantages
lost.

Let the files of this body of eight thou-
sand, be afterwards divided, and let it be
reduced to three in depth, its front will
then be found five times more extensive,
and its depth five times less: we may,
therefore, conclude, that the defects of
the phalanx were evidently multiplied in
the discipline of Europe, at the expense
of its advantages, which consisted in the
depth of its files.

The progress which has taken place in
the artillery, has contributed greatly to
this revolution. As cannon multiplied,

it was necessary to avoid its effects; and
the method of avoiding, or at least of less.
ening them, was to diminish the depth of
the files.

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The musket, likewise, has a great share in the alteration; the half-pike was entirely laid aside for the bayonet; and in order to have no fire unemployed, it was thought necessary to put it in the power of every soldier to make use of his firelock.

These are, we think, the two principal causes of the little solidity, or depth given to the battalion.

Thus the defects of the phalanx were multiplied in the European discipline, and its advantages and perfections injudiciously diminished. The system of Prussia, though it made some alterations, but with ever such power, until the French revived the principles of the phalanx in their columns of attack, the system was most in favour to the phalanx, and has nothing but the single effect of fire arms to counterbalance all its advantages. The effect of these, of fire arms in a partial power, and does not originally belong to the manner of disciplining troops, the sole aim of which, should be to employ man's natural action. It is man, therefore, and not his fire, which is to be considered as the principal agent; and from hence the European systems before the French revolution were very much inferior to the phalanx, and still more to the Roman arrangement, which so far surpassed that of Greece.

The light troops of both those people were much heavier than modern battalions, and had more power and solidity for a shock or conflict. However, the Roman discipline, notwithstanding its superiority, is not calculated for our times; because, as we are obliged to engage first at a distance, ours, by its cannon, would destroy the Roman order of battle in a very short time, and would be exposed to a loss much less considerable itself, supposing even the artillery was equal on both sides; we should then, in order to perfect our arrangements, endeavor to procure them all the advantageous qualities of the legionary regulations, as the only means of giving them the superiority.

Many people are of opinion, that we now imitate the Romans, and that we give battle according to their system, because our troops are drawn up in lines, some of which are full, and others vacant. But it is shewn, that three battalions have the same front, and the same inconveniences that eight thousand men ranged in the phalanx order. Our lines are formed by brigades, regiments, or battalions, and the distance of one corps from the other is equal to the front of one of those corps; so that these lines, both full and vacant, are composed of detachments equal in front; each has a phalanx of six, eight, or twelve thousand men. This order of battle consequently, can be no more at most than a kind of medium between those of Greece and Rome.

TACTICS of Bonaparte. It is well known that the greater part of the victories of Bonaparte may be imputed to the admirable system adopted by this general; a system which, however often repeated, still has been attended with the same success—a system, to which the established tactics have as yet applied no remedy, or, rather, to which the confirmed habits of men, educated in the ancient systems, are as unwilling as unable to accommodate themselves.

The minor discipline is his great secret; the simple methods of the first drills are merely facing and wheelings in a discretionary order, all his rules, are like general principles, the result of which may be produced by a different process of the same elements. All his movements are at rapid time; and the rotation of evolutions, though laid down in regulation, is not pursued in practice, the soldier is taught not so much how to execute a set of movements, as how to perform any that the variety of ground and the incidents of action, never twice alike, call for. These are the elementary rules, on which the system is founded.

His system of action is comprehended in the following principles:

1st. To select some partial point of attack, most frequently the enemy's centre, but occasionally one or other of the wings—and then, strengthening that part of his own army which is opposed to the point of attack, by drafts from the other divisions, to bear down upon the point of attack, with the advantage of numbers, and consequently of greater physical force.

2d. To counteract the effect of the weakness of the other divisions, by assigning them a defensive part only; a purpose which evidently requires a less power than is necessary to attack.

2. By some advantage of position. This is either natural, as a strong position properly so called, or relative, as where the weaker divisions are so placed as either to be protected by the stronger, or, in case of dispersion, to be enabled to fall in with the main body.

3d. The necessary, the inevitable effects of this system are—

That the part of the enemy, which is the point of attack, is almost invariably broken, driven back, in a word, defeated.

That, in the mean time, the weaker divisions of the army which attack, according to this system, are either enabled to maintain their ground, against the strongest wings of the enemy, or they are repulsed.

That, if the divisions maintain the ground, the defeat of their enemy is certain, complete, and irreparable.

The main body of the attacking army, having driven before it the point of attack, has now become the rear of the other divisions of the enemy which are contending with its own divisions. The divisions of the enemy are thus between two bodies. The divisions they are in the act of at-
tacking, and the victorious main body, which, having accomplished its own part, is hastening to the relief of its divisions.

That, on the other hand, if the weaker divisions of the attacking army, (attacking according to the system) should happen to be dispersed; confident of their final victory, they excit themselves like conquerors, with the spirit of hope, and courage of assured victory. They dispute the ground, retreat inch by inch, and, if they cannot prevent, still protract their defeat, till the victorious main body shall come to their aid.

Finally, and indeed, most materially, though the weaker divisions of the attacking army should be absolutely defeated, the victorious main body cannot but necessarily recover everything. The divisions of the enemy, which have succeeded in defeating the divisions of the attacking army, must be equally dispersed by pursuit, as the defeated divisions by defeat. It is, indeed, an essential part of this system, to conceive that they should be dispersed, by the scattered flight of the divisions defeated. By this means the victorious main body, formed by the exactest discipline to keep their ranks, returning from their pursuit at the word of command, and in the very moment of opportunity have an easy conquest over scattered divisions, which are thus likewise under the circumstances of being placed between two fires.

Such is the celebrated system. Three singular inferences must be deduced from it:—

That, where an army attacks according to this system, the defeat of one part of the army of its enemy is the defeat of the whole;

That the defeat of the smaller divisions by the defending army, is no defeat at all; the defeat, or at least, repulse of these divisions, being one of the means of the victory of the attacking army;

That it is the event of the main attack, and not the repulse or even defeat of the smallest part and merely defensive divisions that should decide the victory.

Maritime Tactics, or manoeuvres, &c. at sea. Like those practised on land may be considered under two heads. The first contains what the French term bateau-riper or detail, in which are included the orders and signals directed to be observed by fleets going into action; together with a specific account of the different manœuvres which have been executed in the principal engagements. The second comprehends a knowledge of the rates of ships, and of the method of constructing them.

The vessels of the ancients made their war by means of sails and oars. The rows of oars were proportioned to the different sizes, from what was called noso-ramos, which was the smallest, and had only one row; to the guineque-ramos, which had five rows.

The particular method in which these ships were constructed, as well as of the arrangements that were made within, in order that a sufficient number of rowers might be commodiously placed to work them, is not perfectly known to the moderns; nor have the ancients left us documents sufficiently clear and accurate on that head.

With respect to naval tactics, or the art of fighting at sea, it is confessedly less ancient than tactics on shore, or what is generally called land service. Mankind were accustomed to contend for the possession of territory long before they determined on, or even dreamed of, making the sea a theatre of war and bloodshed.

Setting aside the many fabulous accounts which are extant concerning naval tactics, we shall remain satisfied with what has been transmitted to us by the Roman writers of the Vth and VIth centuries of that republic. We shall there find specific details of the different manœuvres which were practiced at sea during the Punic war. In those times naval armaments began to be regularly fitted out; ships of different forms and sizes were constructed, and certain offensive and defensive machines, that served as a species of artillery, were placed upon them.

They had already been drawn out according to system; being divided into certain proportions which were then called divisions, but are now named squadrons; and the persons who commanded them, exerted all their skill and genius to gain advantages over their enemies, by opportunely getting to windward, by seizing the favorable occurrence of this tide, or by mooring in advantageous situations.

At the battle of Actium, Augustus finding himself inferior to Mark Antony in the number of his ships, had the sagacity to draw up his line of battle along the entrance of the gulph of Ambracia, and thereby to make up for his deficiency. This naval manœuvre, as well as that of getting to windward of the enemy, in order to bear down upon him with more certainty and effect, exists to the present day.

We act precisely upon the same principles in both cases, by which the ancients were governed, with the additional advantage, in fighting to windward, of covering the enemy's line with smoke from the discharge of ordnance and fire-arms. The French call this being in possession of the closest line—Octever la ligne de plus près.

In those times, ships were boarded much sooner than they are at present. Most engagements at sea are now determined by cannon shot. Among the ancients, when two ships endeavored to board each other, the rowers drew in their oars, to prevent them from being broken in the shock.

The manœuvre which was practised...
on this occasion, was for the ship that got toeward of its adversary, to run upon its side, with the prow, which being armed with a long sharp piece of iron, made so deep an impression in it, that the ship thus attacked, generally sunk. The voyages which were afterwards made on the ocean, rendered it necessary to construct ships that carried more sail, and were double decked; and since the invention of gunsioneer, tiers of guns have been substituted in the room of rows of ears.

On the decline and fall of the Roman empire, the Saracens got the ascendancy in naval tactics. They took advantage of this superiority, and extended their conquests on all sides. The whole extent of coast belonging to the Mediterranean, together with the adjacent islands, fell under their dominion. Mankind are indebted to them for considerable improvements in naval tactics.

It was only under Charlemagne that the Europeans may be said to have first paid any great attention to their navy. That monarch kept up a regular intercourse with the caliphs of the East; and having just grounds to apprehend an invasion from the Normans, he constructed vessels for the defence of his coasts.

During the reign of the first French kings, belonging to the third race, naval tactics were little attended to; on account of the small extent of maritime coast which France possessed at that period. It was only in the days of Louis the Younger, and of Louis, summoned the Saint, that we discover any traces of a considerable fleet; especially during the crusades.

Under Charles the Vth, and his successor Charles the Vth, the French got possession of several sea-ports, and had command of a long line of coast. Yet neither they nor the English, with whom they were frequently at war, had at that period anything like the fleets which are fitted out now.

The discovery of America by Columbus, and the more lucrative possession of the East Indies, induced the principal states of Europe to increase their naval establishments, for the purpose of settling colonies, and of bringing home, without the danger of molestation, or piracy, the wealth and produce of the Eastern and Western worlds.

The French marine was far from being controllable under Francis the first; but it grew into considerable reputation during the administration of cardinal Richelieu, in the reign of Louis the XIIIth, and continued so until the "tric of La Hogue. From that epoch it began to decline, while the English, on the other hand, not only kept up the reputation they had acquired under Cromwell and his predecessors, but rendered themselves so thoroughly skilled in naval tactics, that they have remained masters of the sea to this day. In corroboration of what we have advanced, we refer our readers to a history of the Sovereignty of the Ocean, by the American editor of this work.

**TACTIQUE MARITIME.** Fr. Naval tactics, or sea manoeuvres, &c. See NAVAL TACTICS.

**TAGEBER.** Ind. Dismission. **TDAAU.** Ind. A barb.

**TAIL of the trenches.** The post where the besiegers begin to break ground, and cover themselves from the fire of the place, in advancing the lines of approach. **TAILLE du solaire.** Fr. The size, height, and stature most proper for a soldier.

**TAILLER.** Fr. To cut. **TAILLIER.** Fr. To cut to pieces.

**TAILLOIR.** Fr. Trencher. It likewise signifies in architecture a square piece of stone, or wood which is placed above the capital.

**TAKE.** This verb, as Dr. Johnson observes, like prendre in French, is used with endless multiplicity of relations. Its uses are so numerous, that they cannot easily be exemplified; and its references to the words governed by it so general and lax, that they can hardly be explained by any succession of terms. But commonly that is hardest to explain which least wants explanation.

We shall content ourselves with giving its references to the words governed by it, especially the junior classes, are frequently in the enemy's camp, to surprise the army.

**TAKE down.** To make prisoner. To make prisoner. To make prisoner. To make prisoner. To take down that which cannot easily be exemplified; and its references to the words governed by it so general and lax, that they can hardly be explained by any succession of terms. But commonly that is hardest to explain which least wants explanation.

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**TAKE up quarters.** To occupy locally; to go into cantonments, barracks, &c. To become stationary for more or less time.

**TAKE up the gauntlet.** The correlatives to throw down the gauntlet. To accept a challenge.

**TAKE up arms.** To embody and troop together for offensive or defensive purposes. We likewise say, to take arms.

**TAKE down.** To minute; to commit to paper what is spoken or given orally. Hence to take down his words.

**TAKE the field.** To encamp. It likewise means generally to move with troops in military order.

**TAKE in.** A phrase, signifying to cheat, to pull. Officers, especially the junior classes, are frequently taken in.

**TAKE oath.** To swear.

**TAKE up.** To seize; to catch; to arrest; as to take up a deserter.
TALK. An expression in familiar use among soldiers that have enlisted for a limited period, to signify an extension of service by taking a fresh bounty.

To take. To adopt any particular formation:

Rear ranks take open order. Words of command which are used in the discipline of troops.

To take cognizance. To investigate with judicial authority.

TALC, (Talc, Fr.) In natural history, a shining, squamous, fissile species of stone, easily separable into thin lamina or scales, improperly called limglass.

There are two kinds of talc, viz. the white talc of Venice, and the red talc of TALPATHES, Fr. A nickname graduated from a given height to a less.

TALON. In fortification, is a slope covered with earth which is concave above. This word is likewise applied to many other things, as the upper part of a scythe, &c., the end of a pike, &c.

TALON d'un cheval. Fr. A horse's heel, or the hud part of his hoof. Talon literally means heel.

TALOOK, Ind. A farm under rent; or a number of farms or villages let out to one chief.

TALOOKDAR, Ind. The head of a village under a superior.

TALPACHES, Fr. A nickname given to the foot soldiers in Hungary. It is derived from TAL, which, in the Hungarian language, signifies sole of a shoe, and plainly proves, from the tufted, attached to it, that the Hungarians would rather serve on horseback than on foot. All persons are strictly forbidden to call them by this name.

TALUS. Information; disclosure of anything secret.

TALK. The Indian tribes of the United States, on public occasions, such as treaties, depute persons to deliver discourses to those with whom they treat, and those discourses are called TALK; they often abound with eloquence.

To talk. To make use of the powers of speech. Officers and soldiers are strictly forbidden to talk under arms.

TALLOW. A well known name for covered with fat in the composition of fireworks. See Laboratory.

TALON, Fr. In architecture, an ornamental moulding, which is concave below and convex above.

TALON renversé, Fr. An ornamental moulding which is concave above. This word is likewise applied to many other things, as the upper part of a scythe, &c., the end of a pike, &c.

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to keep off the wind, &c. by means of folding doors. In many instances it is the same as porch.

TAMBOUR, Fr. See DRUM.

Tambour battant, drums and fladrons. To march with drums beating and colors flying.

TAMBOUR, Fr. See DRUMMER. We frequently use the word Drum in the same sense that the French do, viz. to signify drummer. We likewise say file for file; as, one drum and one file to each company.

TAMBOUR major, Fr. Drum major.

Batteries de Tambour, Fr. The different parts among the French are—La générale, the general; L'assemblée, the assembly; Le premier, the last beat; Le drapeau; Le tambour; Aux champs, to the field; La marche, the march; La diane, the reveille; L'appel, to arms, or the alarm; La cloche, the bell; L'appel, the roll or call; La fasce ou bretagne, the workman's call. Le bon et la révélée.

Aux champs, ou le premier, is beat when any particular corps of infantry is ordered to march; but if the order should extend to a whole army, it is then called La générale, the general. They do not make this distinction in the British service, but omit the premier or first beat when one regiment, detachment, or company, marches out of a camp or garrison where there are other troops.

Le second, ou l'assemblée, is to give notice that the colors are to be sent for.

La marche is beat when troops march off their parade.

Battre la charge, ou battre la guerre. To beat the charge, or the point of war. This occurs when troops advance against an enemy. This beat may be conceived by repeating in seconds of time the sound bom! bom! bom! bom! Battre la révélée is to beat the retreat, to cease firing, or to withdraw after the battle. It is likewise used in garrisons to warn soldiers to retire to their quarters.

Battre la réveille. To beat the long roll. A beat which is practised to call soldiers suddenly together.

Battre la diane. To beat the reveille. This is done in a camp or garrison at break of day. When an army besieges a town, the reveille is confined to those troops belonging to the infantry that have mounted guard, particularly in the trenches; and it is then followed by the discharge of those pieces of ordnance which had ceased firing on account of the darkness of the night, that prevented their being properly pointed against the enemy's works.

Tambour de bataille, Fr. A tabar. Tambour battant, Fr. Drums beating.

Sortir Tambours battans, enjoges de fladrons. To go out drums beating and colors flying.

Tambour in architecture. A term applied to the Corinthian and composite capitals, as bearing some resemblance to a drum, which the French call Tambour. Tambour likewise denotes a round course of stone, several whereof form the shaft of a column not so high as a diameter.

Un TAMBOURIN, Fr. A timbrel.

Tambourine. A drum, somewhat resembling the tabar, but played in our military bands without either stick or pipe.

TAMIS, Fr. A sieve.

TAMPIONS, or large wooden cylin-

ders to put into the mouth of the guns, howitzers, and mortars, in travelling, to prevent the dust or wet from getting in. They are fastened round the muzzle of the guns, &c. by leather collars.

They are sometimes used to put into the chambers of mortars, over the powder, when the chamber is not full.

Tampions, in sevice-arsenals, are the iron bottoms to which the grape-shot are fixed, the dimensions of which are as follows, viz.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>42 pounders</th>
<th>6 3-10ths inches.</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 ditto</td>
<td>5 4-10ths</td>
<td></td>
</tr>
<tr>
<td>24 ditto</td>
<td>4 9-10ths</td>
<td></td>
</tr>
<tr>
<td>20 ditto</td>
<td>4 3-10ths</td>
<td></td>
</tr>
<tr>
<td>9 ditto</td>
<td>3 9-10ths</td>
<td></td>
</tr>
<tr>
<td>6 ditto</td>
<td>3 3-4ths</td>
<td></td>
</tr>
<tr>
<td>4 ditto</td>
<td>2 9-10ths</td>
<td></td>
</tr>
<tr>
<td>3 ditto</td>
<td>2 1-10th</td>
<td></td>
</tr>
<tr>
<td>2 ditto</td>
<td>1 4-10ths</td>
<td></td>
</tr>
</tbody>
</table>

TAMPON, Fr. A wooden peg or instrument which is used to plug up cartridges, petards, &c. A stopper.

TAMPONS, Fr. In modern work are wooden pegs by which beams and boards for floors are fastened together.

TAMPONS, Fr. Flat pieces of iron, copper, or wood, which are used by the French on board their men of war, to stop holes that are made by cannon-balls during a naval engagement.

TAMPONS de canons, Fr. The apron made of cork or lead, which is put over the vent of any piece of ordnance.

TANGENT, (Tangent, Fr.) In triangometry, is a right line raised perpendicularly on the extreme of the diameter, and continued to a point, where it is cut by a secant, that is, by a line drawn from the centre, through the extremity of the arch, whereof it is the tangent.

TANGENT. See GUNNER.

TANGENT scale. —'21 of an inch is the tangent of 1 degree to every foot of a gun's length, from the base ring to the swell of the muzzle. Therefore, if the distance in feet, between these two points be multiplied by '21, the product will be the tangent of a degree; from which the distance being subtracted, will give the length of the tangent scale above the base ring for one degree of elevation for that parti-
Enlisted gun. If the scale is to be applied to the quarter sight of the gun, of course the dispar need not be subtracted.

Tangent of one degree to the following British ordnance.

<table>
<thead>
<tr>
<th>Length</th>
<th>Tangent of 1°</th>
<th>Dispar</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 pr. medium</td>
<td>6 6</td>
<td>1 39 9</td>
</tr>
<tr>
<td>12 pr. light</td>
<td>5</td>
<td>1 32 4</td>
</tr>
<tr>
<td>6 pr. heavy</td>
<td>7</td>
<td>1 47 1 32</td>
</tr>
<tr>
<td>6 pr. light</td>
<td>5</td>
<td>1 42 5</td>
</tr>
<tr>
<td>3 pr. heavy</td>
<td>8</td>
<td>1 39 7</td>
</tr>
<tr>
<td>10 inch howitzer</td>
<td>3 15</td>
<td>1 5 8</td>
</tr>
<tr>
<td>8</td>
<td>3 1 64</td>
<td></td>
</tr>
<tr>
<td>6 1-9 do. light</td>
<td>2</td>
<td>2 1 47</td>
</tr>
<tr>
<td>2 4 do.</td>
<td>1 10</td>
<td>3 34</td>
</tr>
</tbody>
</table>

Tangent of one degree to the following French gun.

<table>
<thead>
<tr>
<th>Kind</th>
<th>Siege</th>
<th>Fr.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tangent of 1°</td>
<td>Dispar</td>
</tr>
<tr>
<td></td>
<td>in.</td>
<td>in.</td>
</tr>
<tr>
<td>24 pr.</td>
<td>2 9</td>
<td>2 1</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>1 1 6 1 4 1 3 2</td>
<td>1 1 5 2</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>1 3 5 1 3 2</td>
</tr>
<tr>
<td>6</td>
<td>1 1 1 1 1 1 1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1 1 1 1</td>
<td></td>
</tr>
<tr>
<td>6 in.</td>
<td>1 1 1 1</td>
<td></td>
</tr>
<tr>
<td>how.</td>
<td>1 1 1 1</td>
<td></td>
</tr>
</tbody>
</table>

As the French tangent scales are marked off in inches and lines, the above dimensions are given in the same, for the more ready turning the French elevations into degrees, and thereby comparing their ranges with the English.

TANK, Ind. A pond or pool of water. A reservoir to preserve the water that falls in the rainy season.

TANNADAR, Ind. A commander of a small fort, or custom house.

TAP. A gentle blow, as a tap of the hammer.

TAPABORD, Fr. A sort of cap or slouched hat made in the English fashion which the French sailors wear. Its sides hang over the shoulders, and shield them from rain in wet weather. It likewise signifies a riding-cap, a montero.

TAPE-cel, Fr. That part of a swipe or swerving gate which serves to raise and let down a draw-bridge.

TAPE-cen, Fr. A falling gate.

En TAPINOIS, Fr. Slyly, secretly.

Sr TAPIK, Fr. To lie squat.

TAPI, Fr. This word literally means carpet, and is used by the French in a figurative sense, viz Ameurer le Tapis, Fr. To waffle.

Mettre une affaire sur le Tapis, Fr. To open any particular transaction, to move a business.

La TAPET, le TAPON, ou TAMPON, Fr. The tampon.

TAPET ou TAMPONNER un Canon, Fr. To put in the tampon. De taper un Canon, Fr. To take out the tampon.

TAPPEE, Ind. The post letter carrier on the coast of Coromandel. An express.

TAPROBANE, Ind. The ancient name for the island of Ceylon. It is derived from tapro an island, and samp, a ferry.

TAPETO. See Drum.

TATETO. See Drum.

TARE. A word adopted by the French from the English term Tar.

TAREAU, Fr. A screw-tap.

TARGET, Fr. A thick iron peg which is used to turn the screw in a press. It is a round piece of steel with a spiral shape.

TARAUA, Fr. An instrument which is used in making the nut of a screw. It is a round piece of steel with a spiral shape.

TARAUDE, Fr. To make a hole like that which is effected by the operation of the Tarau.

TARE, Fr. A word adopted by the French from the English term Tar.

TAREAU, Fr. A screw-tap.

TARGE, Fr. See Target. It is generally pronounced Targue, from whence is derived the figurative expression Se targuer, to plume one's self, or to be self sufficient. Le folson se tague du courage de son pere. The coward plumes himself upon the courage which his father possessed.

TARGET, a sort of shield, being originally made of leathcr, wrought out of the back of an ox's hide.

TARGE, is also a mark for the artillery, &c. to fire at in their practice.

TARIERE, Fr. Anger, wimble, gimlet. The French make a distinction with respect to the gender of this word. When they express a large sized anger or wimble, they say, Un gros Tariere, making it masculine, and when they mean a small sized one, they say, Une petite tariere, making it feminine.

TARIERE, Fr. Likewise signifies a miner's tool with which he bores into the earth. It is used to force a lighted match into the chamber of a countermine, and to make it explode.

TARPAULIN, are made of strong canvas, thoroughly tared and cut into different sizes, according to their several uses in the field; such as to cover the powder-wagons and tumbrels (carrying ammunition) from rain; each field-piece has likewise one to secure the ammunition-boxes.
To be TARRIED. A cant word used among soldiers to signify the punishment which privates undergo among themselves, when they have been tried and sentenced by their own comrades.

TARTARES, Fr. A word used in the French army to distinguish officers’ servants and batmen from the soldiers that serve in the ranks. Tartars likewise mean a grooms.

TARTARS, (Tartares, Fr.) Asians, whose principal arms are the bow and arrow, and sabre or pike. Some few have firelocks and pistols.

Calumet TARTARS. A free people inhabiting the borders of the Caspian Sea, and the banks of the river Wolz. They are used to the immediate protection of Russia, in consideration of the security they enjoy, they are obliged to serve when called upon. They consist of wandering hordes, live in tents, and are armed with bows and arrows. Some have rifle guns, with one or two pistols. But they are extremely crue, and worst disciplined than the Cossacks.

TARRED. A cant word used among soldiers to signify the punishment which privates undergo among themselves, when they have been tried and sentenced by their own comrades.

TASS, Fr. A heap. When the works of a fortification are lined with turf and fascines, &c. small beds of earth are previously prepared and laid one over another, till the necessary thickness is obtained; when completed it is called Tass de gaoum ou de glacage. A heap of turf or a placage, which see. Tass is likewise used in a sense of contempt to signify a crowd—Un tas de fantaisins. A heap or crowd of parasites.

TASSA, Ind. A kind of drum, formed from a semi-sphere of copper, hollowed out and covered with goat-skin. It is hung before the shoulders, and beat with two rattans.

TAS DE CHARGE, Fr. An arch made in a particular manner. It is generally found in Gothic buildings.

TASSEAU, Fr. A small anvil. It likewise signifies a bracket.

TASSEMENTS. Armor for the thighs, so called.

TASSETTE, Fr. A tass in armor.

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TASSETTES, Fr. A kind of drum, formed from a semi-sphere of copper, hollowed out and covered with goat-skin. It is hung before the shoulders, and beat with two rattans.

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command, without delaying to be sold off. The skilful officer will understand this, the unskilful cannot.

TÉMOIN, Fr. A witness. It likewise signifies the second in a duel.

TÉMOINS, Fr. In civil and military architecture, are pieces of earth left standing as marks or witnesses in the fosse of places which the workmen are emptying, that they may know exactly how many cubical fathoms of earth have been carried.

TÉMÉRR, A state of steel or other metal, that best fits it for the use to which it is to be applied. Thus, the blade of a sword should be so tempered as to admit of considerable flexure without breaking, yet so elastic as to retum to its shape, on the pressure being removed.

To TÉMENER. In a military sense, to form parallels to a proper degree of hardness.

TÉMÊPÊST, (Témélette, Fr.) According to Dr. Johnson, the utmost violence of the wind: the names by which the wind is called according to the gradual increase of its force seem to be, a breeze; a gale; a gale; a storm; a tempest.

TÉNABLE, (Tenable, Fr.) Such as may be maintained against opposition; such as may be held against attacks.

TÉNAILE, Fr. (This word literally means terrors.) A military evolu­ tion which was performed in the times of the ancients.

A phalanx, attacked by a lozenge or triangular wedge, bent its right and left forward by a half-quarter wheel each wing on their common centre; and when they found themselves opposite the sides of the enemy’s arrangement, they each marched on their own side, perpendicular to their line; by which means they both laced and attacked the enemy together, at the same time, while the heat was engaged at the sides with the centre of the phalanx which had kept its ground. Such is the description authors have left us of the design and effects of this maneuver.

The tenaille had considerable advantage over the triangular wedge: but, according to Vallery-Rofigé, it was not equally efficacious against the column. The latter could alter the direction of its march, and fall upon one of the wings, whether in motion or not, or detach the section of the tail or rear to take its wings in flank, while it was occupied in making the quarter conversion. The column and tenaille were formed for acting against each other, and could only be victorious over one another by the superior abilities of their commander. However, the column was always exposed to less danger than the tenaille, for the latter could not pursue the column without changing its order; whereas the column must destroy, and in a manner annihilate the tenaille, in case it should once break it.

The tenaille is unquestionably an excellent maneuver, and strictly conforms able to a very wise maxim, which directs us to multiply our strength and efforts as much as possible against one point. It is sometimes made use of in war without being sensible of its advantage; turning a flank with a longer line, is in fact the tenaille. This, however, does not hinder the maneuver from being well performed for the nature of ground not being level like a sheet of paper, the command in ranging his troops, according to the advantages of the situation, does not form a perfect tenaille, such as may be drawn or sketched out, but one of an irregular kind, which produces the same effects; and this is what should be sought on all occasions. This order is also called a posture.

TÉNAILES, in fortification, are low works made in the ditch before the curtains. There were those sorts: viz. the first are the faces of the bastions projected till they meet, but much lower; the second have faces, flanks, and a curtain; and the third have only faces and flanks.

Single Tenaille (Tenaille simple, Fr.) is a work whose front is advanced towards the country, having two faces, forming a re-entering angle: its two long sides terminate on the counterscarp, opposite to the angle of the shoulder.

Double Tenaille (Tenaille double, ou fumée, Fr.) is a work whose front, having 4 faces, forms a re-entering, and 3 salient angles: its long sides are likewise parallel, and terminate on the counterscarp, opposite to the angle of the shoulder. Both the single and double tenailles have this fault, viz. that they are not flanked or defended at the re-entering angle, because the height of the parapet hinders the soldiers from discovering before that angle. Therefore tenailles should only be made when there is not room enough to make horn-works. The ramps, parapets, ditches, covert-way, and glacis of tenailles, are the same with other out-works.

TÉNAILE, Fr. (Tenaille) is a work whose front is advanced towards the country, having two faces, forming a re-entering angle: its two long sides terminate on the counterscarp, opposite to the angle of the shoulder.

DOUBLE TÉNAILES, in fortification, are low works made in the ditch before the curtains. There are three sorts: viz. the first are the faces of the bastions projected till they meet, but much lower; the second have faces, flanks, and a curtain; and the third have only faces and flanks.

SINGLÉ TÉNAILE, (Tenaille simple, Fr.) is a work whose front is advanced towards the country, having two faces, forming a re-entering angle: its two long sides terminate on the counterscarp, opposite to the angle of the shoulder.

TÉNAILLER, Fr. To tear off the skin with red hot pincers. This punishment existed in civilized Europe, until the French revolution.

TÉNAILLON, Fr. This is sometimes called among the French grande évanettes. It is a work composed of two parts, each of which covers the faces of the half-moon, in whose front the tenaille is constructed.

Un TÉNAILLON, Fr. A little tenaille. See Fortification.

TÉNÉDILLET, Fr. A awning; such as a tenaille. See Tenaille.
as is used on board of ship, and over carriages in hot countries.

**Tendre, fr. To stretch; to spread.** This word has various significations in the French language. In military matters, it is common to say,

\[\text{Tendre un pique à quelqu'un, Fr. To lay a snare for any body.}\]

**Tenir, fr. To hold, to keep, &c.**

**Tent, (Tente, fr.)** Any thing that holds or keeps fast; that part of a frame work which is cut to fit a mortise.

**Tent, (Tent, fr.) This word is originally derived from the Latin tendere, I stretch, whence tentare, to stretch. A soldier's movable lodging place, commonly made of canvas, and extended upon poles.

**Tent-Poles.** The poles upon which a tent or marquee is supported.

**Tenir, fr. To hold, to keep, &c.**

**Tenir fer à quelque, fr. To cope with any body.**

**Tenir lieu à cheval, fr. To sit well on horseback, to have a good seat.**

**Tenon, (Tenon, fr.) Any thing that holds or keeps fast; that part of a frame work which is cut to fit a mortise.**

**Tenon d'arquebuse, fr. Loop of a gun.**

**Tent, (Tente, fr.)** This word is originally derived from the Latin tendere, I stretch, whence tentare, to stretch. A soldier's movable lodging place, commonly made of canvas, and extended upon poles.

**Tenting.** The shape of an officer's tent.

**Tents.** The tents for the horse seven feet broad; the winds or keeps fast; that part of a frame work which is cut to fit a mortise.

**Tents likewise means lint to put in a wound.**

**Tent, (Tente, fr.)** This word is originally derived from the Latin tendere, I stretch, whence tentare, to stretch. A soldier's movable lodging place, commonly made of canvas, and extended upon poles.

**Terrain, fr. This word is sometimes written terrain, and signifies, generally, any space or extent of ground.**

**Gagner du terrain, fr. To gain ground little by little.**

**Perdre du terrain, fr. To lose ground.**

**Meuser du terrain, fr. To make the most of your ground. It is likewise used in a figurative sense, viz. Un homme est fort quand il est sur son terrain. A man always speaks with great confidence when he is thoroughly master of the subject.**

**Terrain du camp, fr. The ground within the lines of a camp.**

**Lever le terrain, fr. To reconnaisser, to take a survey of ground.**

**Clôture du terrain, fr. To dispute the ground; to fight it inch by inch.**

**Tenir un grand terrain, fr. To take up much ground.**

**Terrasse.** See Marter.

**Terrasse, fr. Terrace, platform.**

**Terrasse, fr. Terrace, platform.**

**Terrasse, fr. To throw down, to ruin completely.**

**Terrasier, fr.** This word is used among the French not only to signify the person who undertakes to heaps of earth removed, &c.
elk's purpose, but likewise the man who
is the earth, 
should he written down in the proceed-

TERRA, la TERRA, Fr. Earth, 

TERRA PLEIN, Fr. See Forti-
cation.

TERRER, o Terrer, Fr. To hole
out, ground. Th. French say, des gens
dégueure se sout bran tes; meaning there-
by, that they had thrown up entrench-
ments with earth, so as to be covered
from the enemy's fire. Teverne arti-
fire, to cover the head of any fire-work
with earth.

TERRÉS-Améner, Fr. Earths that
have been used in the cleansing of salt-
pots. Salt-petre-men call these earths
Teverne remains.

TERRÉEUR, Fr. Fever, apprehension.

TERRÉUR navire, Fr. See PARK.

TERRTÉ, in gunnery, is to ex-
amine the thickness of the metal of a
piece of artillery, in order to judge of its
strength. This is usually done with a
part of calliper compass.

TERTIATING a piece of ordnance, is
to find, whether it has its due thickness, at
the vent, turrets, and neck; if the turret
and neck are in their due order, and in
the same straight, &c.

TERRA Fr. A small rising ground
that stands unconnected with any other.

TÉSSONS, Fr. Potshards.

TESTI抗菌 MILITAIRe, Fr. Among
the French, a will which is made in the
presence of two witnesses only, and is not
committed to paper.

TESTIMONY. Verb. dechra-
tion given upon oath before any court
martial. The testimony of a witness
should neither be influenced nor inter-
rupted, and the precise words used by him
should be written down in the proceed-
ings without any alteration.

TESTUDO, in the military art of the
ancients, was a kind of cover or screen
which the soldiers of each company made
themselves of their bucklers, by holding
them up over their heads, and standing
close to each other. This expedient served
to shelter them from darts, stones, &c.
thrown upon them, especially those from
above, when they went to the assault.

TESTUPO, was also a kind of large
wooden tower, which moved on several
wheels, and was covered with bull-nck's
hides; it served to shelter the soldiers
when they approached the walls to mine
them, or to batter them with rams.

TETE, Fr. Head.

TETE de Camp, Fr. The head of the
camp, or the front ground which looks
towards the country; and where troops
bivouac.

TETE de la Sappe, Fr. Head of the
sape.

TETE de Cavalcamente, Fr. A cross
beam which lies upon two upright stays,
and supports any part of a wall, &c.,
whilst it is in repair.

Laisse (ou teter) TETE à quelqueux, Fr.

To oppose a person; to keep him at
bay.

Avoir quelque un en tire, Fr. To have
any person opposed to one, viz. Turenne
opposed to The Monceuxulii; Turenne was
opposed by Montecuculli.

TETE, Fr. In the plural number,
are the same as men or lives, viz. La
terre d'une place a coute bien des Tete-
The reduction or taking of a place has cost
many lives or men.

Avoir la Tete de tout, Fr. To be the
most advanced.

TETE de Pont, Fr. That part of a
bridge which is on the enemy's side.

The bridge is fortified on both sides,
the 6-corne saw, Les deux 6-cornes de pont.

TETE de Porc, Fr. This word means
literally a hog's head. It is used to denote
a military arrangement of the triangular
kind. Those mentioned under the term
wedge, were composed of ranks, greater
one than another, in a regular progression
from the acute angle to the base. The
tete de porc was formed of small bodies
fanned in lines in the same sense, and in
the same progression as the ranks in the
preceding wedge; this is to say, a small
body (probably square) was placed at the
head, another of the same size was posted
behind it, having two others, one on its
right, the other on its left, both extending
the full length of their front to mine
the wings of the first. Behind those three,
five others were ranged in the same order,
and so on successively until all were
placed.

This arrangement is equal to the for-
mer (viz. that of the wedge); with regard
to defects: as to advantages it has but one
only, which will never be of weight
enough to gain it any degree of re-ulation;

it is this, that being composed of small
bodies, each having its leader or com-
mander, all the different parts are more
less capable of defence should they be at-
tacked at the time they are forming or
disposing; and if the enemy attempted to
form the Tewalle, they might detach
some of those small bodies to intercept
their motions, or to attack them in flank.

This disposition corresponds with the
movement by echelons from the centre,
or both wings thrown back; it is in the
modern mode most imposing and im-
portant disposition, where the force that
uses it is interior in number, and well dis-

ciplined to rapid evolution.

TETE. A string by which horses
are held from pasturing too wide. We
say, Ilustratively, to go the length of
one's teter; to speak or act with as
much freedom as circumstances will ad-
mit.

TETRAEDRON, (Tetraedres, Fr.) In
geometry, one of the five regular bodies.
It is a pyramid which is terminated by
four equilateral triangles, that are equal
to each other; in the same manner that
the tetragon is a recontilineal figure of four
equal sides, which has four right angles.
TETRAGONAL. Square, having equal sides and angles.

TETRARCH. A Roman governor of the military part of a province.

EUONICUS, (Euonique, Fr.) See Orders.

THEATER, (theatre, Fr.) The treasury.

THE FIELD, (the, Fr.) The treasurer.

THANE. An ancient military title of honor, now obsolete.

THANKS. Public acknowledgments for gallant actions. Officers, 

THANKED. To receive a public testimony of good conduct. Officers, 

THANES. Public acknowledgments for gallant actions.

THANKS TO. To express national gratitude.

TELESCOPES, (telescope, Fr.) An instrument by which the degrees of heat are discovered; a thermometer.

SOLEDIE. A mathematical instrument useful to engineers and artillers, in taking heights and distances.

THREE DEEP. Soldiers drawn up in them.

THIRD. To make less numerous.

THIRTEEN. A shilling is so called in Ireland; thirteen pence of that country's currency being only equal to twelve pence English.

THREE DEEP. Soldiers drawn up in them.

THREE. A term used in the selling off in squadron, because the front of three
horses in rank, is equal to the length of one horse from head to tail.

Ranks by threes. Each half squadron is told off by threes. See CAVALRY, MIL.

Library.

To THROW. To force any thing, from one place to another; thus artifi­cists say, to throw a shot or shell, or so many shot or shells were thrown.

THROW. Hostile attack with any pointed weapon, as in fencing. When one party makes a push with his sword, to wound his adversary with the point it is called a thrust.

THUMBSTALL. A piece of leather

TIERCE. A thrust in fencing, de­scribed.

TIDE GATE. See sluice-gate.

TILE, 2 in military building, a sort of

TYLE, a thin, factitious, laminated brick, used on the roofs of houses; or more properly a kind of clayey earth, kneaded and moulded of a just thickness, dried and burnt in a kiln, like a brick, and used in the covering and paving of different kinds of military and other buildings. The best brick earth should only be made into tiles.

The tiles for all sorts of uses may now be comprised under 7 heads, viz. 1. The flat-tile, for covering of houses, which is flat and thin. 2. The plain-tile, for paving, which is also flat, but thicker; and its size 9, 10, or 12 inches. 3. The pan-tile, which is also used for covering of buildings, and is hollow, and crooked, or bent, somewhat in the manner of an E. 4. The Dutch glazed pan-tile. 5. The English glazed pan-tile. 6. The gutter-tile, which is made with a kind of wings. 7. The hip, ridge, or corner-
tile.

Plain-TILES, are best when they are firmest, soundest, and strongest. Some are dusky, and others redder, in color. The dusky-colored are generally the strongest. These tiles are not laid in mor­tar, but pointed only in the inside.

Paving-TILES, are made of more sandy earth than the common or plain­tile; the materials for these last must be absolutely clay, but for the others a kind of loam is used. These are made thicker and larger than the common roof-tiles, and when care has been taken in the choice of the earth, and the management of the fire, they are very regular and beautiful.

Pan-TILES, when of the best kind, are made of earth not much unlike that of the paving-tiles, and often of the same; but the best sort of all is a pale-colored loam that is less sandy; they have about the same degree of fire given them in the baking, and they come out nearly of the same color. Those tiles are laid in mortar, because the roof being very flat, and many of them warped in the burning, will not cover the building so well as that no water can pass between them.

Dutch glazed Pan-TILES, get the addition of glazing in the fire. Many kinds of earthly matter running into a glassy substance in great heat, is a great advantage to them, preserving them much longer than the common pan-tiles, so that they are very well worth the additional charge that attends the using them.

English glazed Pan-TILES, are in general not so good as the Dutch ones under that denomination; but the process is nearly the same.

Dutch TILES, for chimneys, are of a kind very different from all the rest. They are made of a whitish earth, glazed and painted with various figures, such as birds, flowers, or landscapes, in blue or purplie color; and sometimes quite white: they are about 6, 8 inches each way, and three quarters of an inch thick. They are seldom used at present.

Gutter-TILES, are made of the same earth as the common pan-tiles, and only differ from them in shape; but it is ad­visable that particular care be taken in tempering and working the earth for these, for none are more liable to accidents. The edges of these tiles are turned up at the larger end for about 1 inch. They are seldom used where lead is to be had.

Hip or Corner-TILES, are at first made flat like pan-tiles of a quadrangular figure, whose two sides are right lines, and the ends arches of circles; the upper end concave, and the lower convex; the latter being about 2 times as broad as the other: they are about 10 inches long; but before they are burnt are bent upon a mould in the form of a ridge-tile, having a hole at the narrow end, to nail them on the hip corner of the roof.

Ridge TILES are used to cover the ridges of houses, and are made in the form of a semi-cylindrical surface, about 12 inches in length, and of the same thickness as plain-tiles; their breadth at the outsides measures about 10 inches.

TIL TIL, 3. A thrust, or fight with rapiers; also an old military game. See Tourna­ment.
TILTER, one who fights or contests in a tournament.

TIMBALE, Fr. A brass kettle-drum, such as is used by European cavalry. French soldiers say feu au vlys, Paire bouille la timbale; to make the pot boil.

TIMARIOT, a Turkish soldier who has a certain allowance made him, for which he is not only obliged to arm, clothe, and accoutre himself, but he must likewise provide a certain number of military men. The allowance is called Timar.

The Timariots are under the immediate command of the Sancak or Beg, according to their particular distribution. When the Timariots belonging to Nataolia, do not join the standard, they forfeit a whole year's allowance, which is deposited in a chest or stock-purse called manukasr. But the Timariots in Europe, and Turkish cavalry, are not liable to this fine. When they refuse to serve, they are suspended for two years. The income of a Timarot amounts to five thousand apries, and the Timariots of Hungary have six thousand. When an Hungarian Timariot dies, the Bashaw of Buda has the power of dividing his property into two parts, which is placed to the account of the Ottoman government, and enables it to pay two soldiers.

There are different classes among the Timariots. Some are called dhimnators, some dhimnata, and others Bergheirs.

The Timariots are in possession of that species of Timar which cannot be divided for the benefit of government after the decease of the individual.

The dhimnators are subject to a division of property among two or three persons, at the will of the latter.

The Bergheirs are in possession of that kind of Timar which may become the property of three or four individuals who serve together, or relieve each other alternately, on condition that the one who takes the field enjoys the whole benefit of the Timar during his stay with the army.

There are many of this kind in Nataolia. Every thing which appertains to the Turkish cavalry, known by the name of Topcuchy, and which is regularly clothed, armed, accoutred, and paid by certain officers, belonging to the Ottoman empire, out of revenues called maly-mukata, may be ascertainment and known under the several appellations of Timariots, Zaimts, Begheirs, and Bergheirs.

TIMARS, certain revenues, in Turkey, growing out of lands which originally belonged to Christian clergy and nobility, and which the sultans seized, when they conquered the countries they inhabited.

By means of these Timars and Zaimts the Grand Signor is enabled to support the greatest part of his cavalry.

The Timars differ in value. The richest, however, do not exceed twenty thousand apries annually, which may be considered as equal to about three hundred and fifty dollars; and the Zaimts receive full as much. Those who are entitled to Timars, are called Timariots, and those who have Zaimts are named Zaimts.

TINBER, in military architecture, includes all kinds of leaded and seasoned wood used in the several parts of building, &c.

Oak, of all the different kinds of timber known for building, is preferred by the European nations; because, when well seasoned and dry, it is very tough and hard; it does not split so easily as other timber, and bears a much greater weight than any other. When it is used under cover, it never perish, as a more than in water; on the contrary, the older it grows the harder it becomes; and when it is exposed to the weather, it exceeds all other timbers for durability. English oak is said to be the best, American the next, then Norway, and lastly Germany. But there are various kinds of American oaks.

Elm, if kil'd between November and February, is all spine, or heart, and no sap, and is of singular use in places where it is always wet or dry. It is very tough and pliable; it is easily worked, and does not readily split; it forms driving of bolts and nails into it better than any other wood, for which reason it is prepared for artillery uses.

Beech is likewise a very useful wood; it is very tough and white when young, and of great strength, but liable to warp very much when exposed to the weather, and to be worm eaten when used within doors. It is frequently used for axletrees, feltables, and all kinds of wheelwright work, and where it is kept constantly wet and free from air, it will outlast oak.

Ash. Its use is almost universal. It serves in buildings, or for any other uses where it is smeared with the weather; hand-spikes and oars are chiefly made of it; and indeed it is the wood that is most fit for this, or any other purpose, which requires toughness and pliability.

 Fir, commonly known by the name of pine is much used in building, especially within doors. It serves but little seasoning, and is much stronger while the resinous particles are not exhausted, than when it is dry: it will last long under water.

Chesnut-tree, especially wild chesnut, is by many esteemed to be as good as oak.

But the best of all timber for ship building is the Teak of Asia; it endures water four times as long as oak, is much more easily wrought; iron spikes driven into it do not rust.

There are many other kinds of wood, used in military works, not mentioned here.

Procuring of timber. When boards, &c. are dried, seasoned, and fixed in their places, care is to be taken to defend and preserve them to which the mean-
ing them with linseed oil, tar, or the like, obnoxious matter, contributes much.

The Dutch preserve their gates, portcullises, draw-bridges, slits, &c. by coating them over with a mixture of pitch and tar, while they screw small pieces of cockle and other shells, beaten almost to powder, and mixed with sea sand, which incrusts and arms it wonderfully. It should be laid in some dry airy place, but out of reach of too much wind or sun, it then airing, and prevent it from moulding, which will rot the surface and produce mushrooms on it. Some dunce, which occasionally their drying equal.

The earth, as the best method of seasoning wheat in their granaries; but this cannot be made a general practice. In Norway when it is intended for piles and other constructions, they season their deal planks, by laying them in salt water for three or four days, then sawing, and drying them in the sun: this is found a great advantage to prevent the earth, as the best method of seasoning wheat in their granaries; but this cannot be made a general practice. In Norway when it is intended for piles and other constructions, they season their deal planks, by laying them in salt water for three or four days, then sawing, and drying them in the sun: this is found a great advantage.

Time, in fencings. There are three kinds of time; that of the sword, that of the foot, and that of the whole body. All the times that are perceived out of their measure, are only to be considered as apps or feints to deceive and amuse the enemy.

Time in fencing, a thrust given upon any opening which may occur by an inaccurate or idle motion of your adversary, when changing his guard, &c. TIMING, is the accurate and critical throwing in of a cut or thrust upon any opening that may occur as your adversary changes his position.

Timing, Fr. Shatting of a cart, coach-pole.

Timoineer, Fr. This word is frequently used as a sea term by the French, and signifies helmsman, or steersman, from Timor, which is applied to the part of the helm he holds.

Timing, see Timers and Laboratory.

Tindals, Ind. Natural officers employed in the artillery, and ships.

Tir, Fr. In artillery, a term used to express the explosion or discharge of any firearm in any given direction. En bouche, a musquet or a good, a bad shot; or a shot well or ill directed.

La theorie du tir, Fr. The theory of art of thing.

Tir perpendiculaire, Fr. A shot made in a perpendicular direction.

Tir oblique, Fr. An oblique shot.

Tir à une chevet, Fr. A ricochet shot.

Tir rasante, Fr. A grazing shot; or shot made in front. See Fortification.

Tir pendante, Fr. A downward or plunging shot.

Tir fendant, Fr. A shot made fendant. See Fortification.

La justesse du tir, Fr. The true direction of a shot. The French say, un fait n'a pas la juste, this musquet has not a true direction, or its shot diverges from the point levelled at.

Tirailleurs, Fr. A soldier who fires as he passes; a rafraichir.

Tirailleurs et are likewise skirmishers or marksmen, advanced in front of the enemy, and drawn out, to annoy, or to be left behind to amuse and stop his progress in the pursuit; a column of infantry is often ordered to act as tirailleurs.

Tiré, are great guns, shot, shells, &c. placed in a regular form. See Piles.

Tirailleurs, Fr. An instrument used by surgeons to extract musquet-balls.

Tir-balle, Fr. An instrument which is used among the French to fix a petard. It likewise means a surgeon's tongs or pincers.

Tirs, Fr. To discharge; to unlash.

Tirer, Fr. To shoot, to fire.

Tirer à bonne visée, Fr. To fire without hot shot.

Tirer des armes à feu. To fire any species of firearm. There is a curious and well written passage on this subject in the Supplement aux vies du secrétaire de S. le M. de Saxe, sous le 78.

Tirs de caussen, Fr. To fire or discharge pieces of ordnance.
TIREE, Fr. Likewise means to move to
wards any place, viz. Après la bataille
gagnée, l'armée tire vers un tel lieu : after
the battle had been won, the army moved
towards such a quarter.

TIREZ au douze pieds d'eau, Fr.
To draw ten or twelve feet water.

TIREZ à la mer, Fr. To put off to
sea.

TIREUR, Fr. A game keeper, a
shooter.

TIREUR d'arquebuse, Fr. A bowman, an
archer.

TIREUR d'armes, Fr. A fencing-
master.

TYROLIENS, A body of sharp
shooters in the Austrian service. They
take their name from the Tyrol, a country
formerly belonging to Germany, about
150 miles long, and 120 broad. It is
wholly mountainous, and was part of the
hereditary dominions of the house of
Austria; but having been twice conquer-
ed by the French, part has been irrevo-
cably ceded to Bavaria in 1809, the rest is
incorporated with the kingdom of Italy.

TON, Fr. An alarm ball.

TONIE, Ind. A canoe.

TOI~SE, in military mensuration, is a
French measure, containing 6 feet, or a
fathom: a square toise is 36 square feet,
and a cubical toise is 216 feet.

These two measures correspond in the
division of the feet; but these divisions
being unequal, it is necessary to observe,
that the proportion of the yard, as fixed
by the Royal Academy at Louis XIV, to the
half toise as fixed by the Royal Society
at London, is as 56 to 30 355.

TOI~SE carrée, Fr. Any square extent,
having six feet in every sense.

TOI~SE color, Fr. Any substance hav-
ing 6 feet in height, 6 feet in breadth, and
6 in depth.

TOI~SE, Fr. This word is used in the
maining geometry, and signifies, in mathe-
matics, the science or art of measuring
surfaces and solids, and of reducing the
measure by accurate calculation.

Une affaire TOI~SE, Fr. A familiar
phrase signifying, the thing is done, all
over.

TOI~SER, Fr. To measure by the
toise.

TOI~SER, Fr. In a military sense, to
take the height of a man, as, c'est un sol-
dat, to take the height of a soldier. The
French likewise say in a figurative sense,
t'etier son homme, to examine one's man with
great attention, in order to find out his
merits, or good qualities.

TOI~SER, Fr. A person employed
among the French in the constructing and
repairing of fortifications.

TOI~SON d'or, Fr. The golden fleece.
La TOI~SON, Fr. The order of the
Golden Fleece, so called.

TOKEY, Ind. A basket made with
cane.

TOLE, Fr. Iron beat into thin
plates.

TOMAN, Ind. Ten thousand men.

TOMAND, Ind. Equal to something
more than three guineas.

TOMBER, Fr. To fall. Le vent
tombe, the wind falls. Tomber entre les
mains des ennemis, to fall into the hands
of enemies.

TOMBIE, Ind. A wind instrument
made in the shape of a globe.

TOMPIION. See Tampon.

TAMSOOK, H unions Zamarins, Ind. A
security for personal appearance.

TOMTOM, Ind. A small drum made
in the shape of a tambourine.

TONDIN, Fr. A term in architec-
ture which is seldom used. It is the
same as the astragal or fillet which goes
round the base of pillars.

TONG. See Teraille.

TONGs of a waggon, a piece of wood
fixed between the middle of the hind
cross-bar, mortised into the
fore cross-bar, and let into the hind cross-
bar.

TONGUE of a sword. That part of
the blade on which the grips, shell, and
pummel are fixed.

Ais triangular TONGUE. The bayonet
figuratively so called from its shape.

TONNAGE, Fr. A word adopted
from the English.

TONNAGE, A custom or impost
due for merchandize brought or carried in
toys from or to other nations after a certain
time in every ton.

TONNAGE, The usual method of find-
ing the tonnage of any ship is by the fol-
lowing rule:—Multiply the length of the
keel by the breadth of the beam, and
that product by half the breadth of the
beam; and divide the last product by
94, and the quotient will be the ton-
nage.

Ship's keel 72 feet: breadth of beam
24 feet.

$72 \times 24 \times 12 = 220.5$ tonnage.

94

The tonnage of goods and stores is taken
sometimes by weight and sometimes by
measurement; and that method is allow-
ed to the vessel which yields the most
tonnage. In tonnage by weight 20 cwt
make 1 ton. In tonnage by measurement
40 cubic feet equal 1 ton. All carriages,
or other stores to be measured for tonnage,
are taken to pieces and packed in the
manner which will occupy the least
room on board ship. All ordnance, whether
brass or iron, is taken in tonnage by its
actual weight. Musquet cartusses in bar-
rels or boxes, all ammunition in boxes,
and other articles of great weight, are
taken in tonnage according to their actual
weight.

The following is the tonnage required
for some of the most material ordnance
stores by the British usage.
Axes, complete 204 1 0
with handles 200 9 0
Barrows—Wheel, packed 20 2 0
Do. unpacked 7 1 0
Hand, single 50 18 0
Budge barrels 32 1 0
Bricks 1000 2 5
Buckets of leather 10 0 0
Ponleon & carriage complete 22 1 0
with its appertences 11 0 0
Carbines.—Standing 42 prs. 1 13 0
Carriages.—Traveling 24 prs. 1 9 3
Howitzer 10 in. 2 1 0
Howitzer 8 inch 1 7 0
12 prs. 1 4 0
9 prs. 1 3 0
6 prs. 1 0 0
4 prs. 0 17 0
10 cwt. 1 0 0
Carriages.—Sling 12 prs. 2 19 0
with limber box 9 prs. 2 7 0
es. ladies, spunges 6 prs. 3 7 2
and rages 3 prs. 2 19 0
Medium 12 prs. 2 9 2
6 pr. light, with ammunition 2 3 0
5½ inch howitzer, Do 3 2 0
5½ howitzer of 10 cwt. 3 2 0
8 inch howitzer 3 7 2
Sling cart complete 3 2 0
Forage cart, with limber 4 0 0
Ammunition wagon 4 18 1
Gravel cart 2 16 2
Duke of Richmond's close hodeled wagon 5 0 0
Road wagon, with upright sides 7 10 0
Gin. triangle 0 14 0
Grate for heating shot 0 4 2
Handspikes 120 1 0
Handcrew levers, of 5 feet 120 1 0
Handcreeks, large 15 1 0
small 17 1 0
Helves, pick or felling 300 1 0
Do. sledges 300 0 0
Do. pinnaul 300 0 0
Junk 20 cwt. 1 5 0
Linstocks, with cocks 600 1 0
without cocks 1000 1 0
Musquets.—A chest with 25 is 16 feet.
Do. with 25 is 11 feet.
Match 6 cwt. 1 14 0
Powder 31 whole barrels 1 0 0
Shovels, shod with iron 138 1 0 0
Sand bags (Bushel 500 12 0
Bales (Half do. 500 7 1
(2 bushel 250 8 0
Bushel 500 12 0
(2 half do. 500 7 1
The following is the tonnage allowed in the British service to the military officers of the ordnance embarked for foreign service, for their camp equipage and baggage:

For a field officer 5 tons
For a captain 3 do.
For a subaltern 1¾ do.

TONNEAUX Meuniers, Fr. Casks which are bound together with ropes, or circled round by iron hoops, and are filled with gunpowder, pebbles, &c. The particular method in which these casks are prepared may be seen in Tom. II. page 218, Des Observations Militaires.

TOOKSWAIRS, Ind. The vizir's body of cavalry.

TOOLS, used in war, are of many denominations and uses, as laboratory tools, mining tools, artillery tools, &c. which see.

TOPARCH, (Toparch, Fr.) The principal man in a place.

TOPARCHY, (Toparchie, Fr.) Superintendence; command in a district.

TOPAS, Ind. This name was originally given by the natives of India to a native Portuguese soldier, on account of his wearing a hat; contra-distinguished from the Hindus and Mahomedans who went turbaned.

TOPE, Ind. A small wood or grove.

TOP, Ind. A gun.

TOPEE, Ind. A hat.

TOPES, Ind. A person who wears a hat.

TOPFCHANNA, Ind. The place where guns are kept; the arsenal.

TOPGII-Bachi, Grand master of the Turkish artillery. This appointment is one of the most important situations in the gild of the Porte. It is generally bestowed upon a relation to the Grand Vizier, or upon a favorite to the Grand Vizier.

The name is derived from toper, which, in the Turkish language, signifies cannon, and from bachi, which means long, chief or commandant.

The person next in command to the Topgii-Bachi is called Dukigii-Bachi, or master of the Topgis, who are both cannoniers and founders. The latter are paid every month by a commissary of their own, whom they call Keelb.

TOPGIS, sometimes written Tonchins. A name generally used among the Turks to signify all persons employed in the casting of cannon, and who are afterwards appointed to the guns. It is here necessary to observe, that on account of the vast extent of the Ottoman empire, the Turks do not attach much heavy ordnance to their armies, especially when they car...
ry on their operations from one frontier to
another. This is owing to the scarcity of
draught-horses, and to the natural ob-
crances of the country. So that they seldom
carry, onto the field guns above eight or
twelve pounders.

But when it is their design to form any
considerable siege, they load canons with
all the materials requisite for casting can-
on. A certain number of Toogis accom-
compny them, and the instant the army
takes up its quarters near to the spot
where the attack is to be made, they set
to work and cast pieces of ordnance of
every species of calibre or bore.
The Turkish cannon is extremely beau-
tiful and well cast. The ornamental parts
consist of plants, fruits, &c.; for it is ex-
pressly forbidden in the Koran to give
the representation of any human figure
upon fire-arms, particularly upon pieces
of ordnance; the Turks being taught to
believe that God would order the work-
man to give it life, or would condemn
him to eternal punishment.
The Turks are very awkward in con-
structing platforms for their batteries, and
are almost ignorant of the art of pointing
their pieces. From a consciousness of
their deficiency on this head, they encour-
ge Christian artillerymen and engineers
to come amongst them; but until the year
1758, they seldom viewed them but
with a jealous eye, and always gave the
preference to renegades. General Koehler,
with a few British officers belonging
to the train, joined their army in 1800
for the purpose of acting against Egy-
pt.

TOPIKMANNAH, Ind. A house for
keeping guns, an arsenal, armory.

TOPOGRAPHER. A person skilled
in viewing, measuring, and describing
ground.

TOPOGRAPHICAL ENGINEERS. A
body of military men which are now be-
come essential in war.

TOPOGRAPHICAL DETECT. The fol-
lowing short sketch of the only institu-
tion of this kind which is peculiar to France, will
explain its nature and origin. Lou-
vois minister of Louis XIV, in 1608 un-
dertook to reform all the departments of
government, and the war department
among the rest. His death interrupted
his design which was nevertheless after-
wards pursued upon the peace of Utrecht
in 1713: when all the military papers
were closed, under different heads, and
tables of contents to each prepared,
amounting to 2700 volumes. These pa-
pers embraced all military subjects from
1600 to that time.

In 1696 a corps called "engineers of
camps and armies" was instituted; who
in 1729 were called "geographical engi-
ners" employed with the staff in draw-
ing plans, &c. But their drawings were
useless in the camp, until 1744, when
d'Angenson improved the corps and estab-
lished them at Versailles. It was from
this agent that F Galaire obtained all the
materials which render his concise sketch-
es of history more accurate and preferable
to any other, who has not made use of his
materials.

In the seven years war, the Huel de la
Guerre was erected at Versailles, it was
completed in 1700. Borher who was the
intimate friend of marshal Saxe was ap-
pointed chief geographical engineer; and he
collected a vast body of charts, drawings,
and topographical sketches on the Rhine,
Hesse, Westphalia, Hanover, &c.

But some idea of former insufficiency
may be had from the following anecdote
taken from memoirs of marshal Rocham-
beau (the same who served with Wash-
ington) published at Paris in 1803. The
marshal was an officer under marshal
Richelieu at the attack on Minorca during
the seven years war, which he thus de-
scribes:—"When the marshal left Ver-
sailles to proceed on the expedition, there
could be found only one plan very old of
Fort Mahon, in the military depot, and
this was merely a draft of Fort St. Philip.
M. de Valiere, a minister of that day,
who was much better adapted to be a man-
midwife than a chief of the war depot, was
consulted, and said that 24 pieces of
heavy ordnance and 15 mortars would be
sufficient to lay the place in ashes. At
Toulon, Richelieu had some discourse
with a captain of a merchant ship who
had been prisoner at Port Mahon, who
said the duke's plan of St. Philip was no
more like it than the Bastille. Saxe's in-
telligence induced the duke to take 14 pieces
of artillery and 7 mortars more. But what
was our astonishment when on the first
sight of Fort St. Philip we discovered
works bristled with arms and fortifications
presenting 140 embrasures with their tem-
pons out."

There can be no greater ignorance than
this in military affairs, excepting the ig-
norance of the British at Walcheren in
1809, who did not know that the channel
which formerly made Cadzand an island,
and separated it from the continent, had
teen filled up and become terra firma for
23 years preceding.

By an arrest of 1769 the topographical
board was again revived, but fell into ne-
glect. St. Germain made them one corps
with the engineers; but they were again
separated in 1777. M. de Vault who had
been the soul of the institution for 40 years,
ever since 1750, died in 1790, had digested
all the materials of the wars down to the
year 1763 in a military historical manner,
they amounted to 125 volumes. It came
under the care of his colleague M. Beau-
dou, who died, and was succeeded by ge-
eneral Mathieu Dumont, until the revolu-
tion; when the war depot in 1792 was re-
moved to Paris for safety and for use.
Colot, Desordes, Lacour, and Carnot, were
active in it; Carnot for his own advantage
and convenience formed out of this a pri-
ate topographical cabinet, to which may
be attributed the development of these.
grand combinations, which put fourteen armies in motion and maintained their cooperation in a manner which has astonished mankind, and laid the foundation for those ceremonial achievements which have since subverted all previous axioms in tactics and prostrated and encircled Europe.

But the want of topographers being so much felt in the early campaigns of the revolution no doubt stimulated Carnot to render it perfect. Accordingly the corps was new organized, three companies were formed, and each composed of 12 artists and a considerable number of pupils or assistants to each. These were employed on the topography of Bavaria, Swabia, &c., the materials collected in Italy, Piedmont, Spain, Naples, Egypt, and St. Domingo. The grand map of France by Cassini; the chart by Ferraris of the Netherlands, and Piedmont by Borinsono, were engraved under the inspection of these corps. During the war all topographical materials were collected with zeal. General Dupont (who has been since made prisoner in Spain) considerably improved and corrected it; Ernout who was lately commander of one of the French W. I. islands, was for a time at the head of this depot; its organization was completed in 1795. General Clarke, having been educated in this corps, was placed at the head of it in the year 1800. A library was established and 8000 volumes appropriate to the subject added by him. In 1801 it was enriched with all that the campaigns of Bonaparte procured.

But the most important of its works was a plan of France upon a combined projection of 4 points of view taken on the banks of the Rhine, 24 topographical engineers under Franchot the astronomer arranged this. The organization was further improved on a project of general Clarke; general Andecosi afterwards succeeded, and under his care numerous charts were engraved and published.

The following is an abstract of the contents of the depot. 2700 volumes ancient archives; 8000 select additional volumes; 327 engraved maps 7278; manuscript plans of battles, marches, encampments, &c. It furnished to the army before 1804, engraved maps 2775; manuscript plans and drawings 207; 61 atlases, and upwards of 600 narrative memoirs.

In the early formation of this and other scientific establishments, in the talents which directed and the liberality that provided them, we see one of the real causes why France is superior in war to all other nations.

TOPOGRAPHY. In military history, a description or draught of some particular place, or small tract of land, as that of a fortification, city, manor or tenement, garden, house, castle, fort, or the like; such as engineers set out in their drawings, for the information of their prince or general. Hence a topographical chart—Carte Topographique.

TOPSY-TURVY. Upside down, or, as our old authors more properly wrote it, (to use Mr. Tooke's words in his Di-versions of Purley,) Up so down, bottom upward. It corresponds with the French term, Sans dessus dessous; without top or bottom; i.e. a situation of confusion, in which you cannot discern the top from the bottom, or say which is the top and which the bottom. When a battalion is so awkwardly managed, either through the ignorance of the chief who gives the several word of command, or through the dullness of the officers and soldiers who are to execute them, that the grenadiers get where the light infantry should stand, and the rest of the companies out of their proper fronts and positions, such a battalion may be said to be topsyturvy. There is a sea-phrase in familiar use among the military, which means the same thing, viz. to capsize, renverser. Chavirer quel- que chose, comme une embarcation, &c. To turn upside down, as to capsize a piece of ordnance. Hence, figuratively, to capsize a battalion, which means the same as to club a battalion. See To Curb.

TOQUE. A velvet cap with the sides turned up, and flat at the top. The Gent. Suisses, or the French king's Swiss body guard, wore the nager during the French monarchy.

TOR. A tower or turret.

TORCHES, (Torchis, Fr.) In military matters, are lights used as signal, &c. They are generally made of thick ropes, &c.

TORCHIS, Fr. Mud-clay, with which cottager's huts, &c. are made in most countries.

TORE, Fr. See Torus.

TORUS. In architecture, a large round moulding used in the bases of columns. See Torlaqui. A sort of priest in Turkey.

TOUR. A Portuguese word which is used on the southern coasts of Africa, to express furious whirlwinds that are often fatal to mariners and seamen. Dr. Johnson calls it generally a hurricane; a whirlwind.

TORNADO. A Portuguese word which is used on the southern coasts of Africa, to express furious whirlwinds that are often fatal to mariners and seamen. Dr. Johnson calls it generally a hurricane; a whirlwind.

TORPEDO. A military machine for defence, invented by Mr. Robert Fulton, an American; there are various kinds adapted to positions and methods of defense or attack; the machine is a case of copper, oblong, and containing 100 lbs. or more of powder; to the end of the case is a kind of lock about the size of a parlor door brass lock, inside of which are clock works so formed as to be set to any number of seconds or minutes required, which being expired, the gunpowder in the case is exploded, and all above is torn to pieces by the explosion.
TORSE, Fr. This word means literally, twisted. In architecture it signifies a pillar, the body of which, or the part between the base and the capital, is surrounded with concave and convex circular rows.

TOROISE. See Testudo.

TORTS, Fr. See Wrongs.

TORTE, Fr. Literally means tortoise. It likewise signifies the testudo, or rotary, twisted. In architecture it signifies the main body of the place, and taking possession of the sarge. Torrle le fiant, to turn the flank. Tourner l'aile droite ou l'aile gauche, to turn the right or left wing. Tourner en poste, une manœuvre, to get into the rear of a post, mountain, &c.

TOURNIQUET, Fr. A turritile. It likewise signifies a swivel or iron ring.

TOURNIQUET, Fr. Among artificers, a species of firework composed of two fusées, which, when set fire to, produce the same effect as the Soleil Tournant. In surgery, an instrument made of rollers, compresses, screws, &c. for compressing any wounded part so as to stop haemorrhages.

The common Tourniquet is very simple, consisting only of a roller, which, with the help of a small stick, serves to stop the effusion of blood from large arteries, in amputation, by forcibly tying up the limb. The things required in this operation are, a roller of a thumb's breadth, and of an ell in length; a small cylindrical stick, a conglomerated bandage, two fingers thick and four long; some compresses of a good length, and about three or four fingers breadth, to surround the legs and arms, and a square piece of paper or leather, about four fingers wide. By the British regulations published in 1797, for the better management of the sick in regimental hospitals, every surgeon and assistant surgeon is directed to have, among other surgical instruments, a certain number of tourniquets; and serjeants, &c. are to be taught the method of using it.

In May, 1795, two tourniquets were directed to be sent to each English regiment, the rest are to be made by the men of the regiment; and besides one to each person who will be taught the use of it, it is necessary to have four for every hundred men.

The non-commissioned officers, band, and drummers of every regiment, are to be taught the manner of applying it according to instructions sent down from the surgeon general's department.

TOURNOIS, Fr. Tournament. TOURS Mobile, Fr. Moveable towers. These were made use of in remote ages; and although the invention of them has been attributed by some to the Greeks and by others to the Romans, it does not belong to either; for we read of moveable
towers in Ezekiel. The curious may derive much information on this head from the Chevalier Fodol in his translation of Polybius, page 689, tom. ii. See MOVABLE TOWERS.

TOURS bastiennes, Fr. See Tower Bastions.

Tours isolées, Fr. Detached towers; such as are made in forts, or stand upon the coast to serve for lighthouses.

Tours terreuses, Fr. Large pieces of wood, which are used in mechanical operations to convey or remove heavy burdens. See LA TOURRE terreuse.

The French call a water-spout by this name.

Tours de fer, Fr. See Soliel Mou.

TOURRELLE, Fr. A turret.

TOURILLON, Fr. A detached tower; a citadel. Towers are built for the knight or nobleman, who led them. He was armed with a sword and a halberd, the blade of which was shaped like a pertuisan. He generally wore the colonel's livery, and was excused all the duties of a Sentry. His pay was eight meniers more than the common grenadier, and the chief prison for state delinquents. The officers belonging to the Tower of London consist of a mint for coining money; the archives wherein are preserved all the ancient records of the courts of Westminster, &c., and the chief prison for state delinquents. The officers belonging to the Tower of London consist of

1 constable and chief go. 1000 0 0
1 lieutenant governor, at 700 0 0
1 deputy lieutenant, at 365 0 0
1 mayor, at 183 10 0
1 chaplain, at 121 13 4
1 gentleman porter, at 84 0 8
1 gentleman gaoler, at 70 0 0
1 physician, at 182 10 0
1 surgeon, at 75 12 0
1 apothecary, 1 venner porter.

TOWER-bastions, in fortification, are small towers made in the form of bastions, &c. by M. Vauban, in his second and third method; with rooms or cellars underneath to place menial guns in them.

MARTIAL TOWER. See TOURS Mobiles.

MOVABLE TOWERS. The officers belonging to the Tower of London consist of

693

TOWN. Any walled collection of houses.

Town-Adjutant. An assistant to the town-major. See Adjutant.

TOWN-Major. An officer constantly employed about the governor or officer commanding a garrison, &c. He issues the orders to the troops, and reads the common orders to fresh troops when they arrive. He commands according to the rank he had in the army; but if he never had any other commission than that of town or fort-major, he is to command as a youngest captain. See Major.

TRABAND. A trusty brave soldier in the Swiss infantry, whose particular duty was to guard the colors and the captain who led them. He was armed with a sword and a halbert, the blade of which was shaped like a pertuisan. He generally wore the colonel's livery, and was excused all the duties of a Sentry. His pay was eight deniers more than the daily subsistence of the company.

TRABES. Traces. A white gown bordered with purple, and adorned with clavi or trabec of scarlet. See Kennett's R. A. page 511.

TRACER, Fr. To trace.

TRACES. The manner by which beasts of draught are enabled to move bodies to which they are yoked.
TRAVEL, in Trajson, Fr. To kill in a treacherous manner.

TRAIL, in gunnery. The end of a travelling carriage, opposite to the wheels, and upon which the carriage slides when unlimberd or upon the battery. See Carriages.

To Trail, literally means to draw along the ground. In military matters it signifies, to carry the forelock man oblique forward position, with the butt just above the ground, Hence Trail Arms, a word of command for that purpose.

TRAIN, Fr. A term known among French sailors and soldiers at sea, to signify: a thin rope or rather packthread, to which they tie their linen; leaving it to dry a thin rope or rather packthread, to which they tie their linen; leaving it to dry.

In military matters it signifies, to carry the forelock in an oblique sense, all the necessary apparatus, implements of war, such as cannon, &c. that are required at a siege or in the field.

Train of Artillery, (Train d'artillerie, Fr.) in a general sense, means the regiment of artillery; it also includes the great guns and other pieces of ordnance belonging to an army in the field. See Artillery.

Train, (Traine, Fr.) In mining. A line of gunpowder laid to give fire to a quantity thereof, which has been lodged upon which pieces of ordnance and stores, &c. are conveyed to the rampart, and brought from one place to another.

Traineaux, Fr. Several pieces of wood made in the form of a large sledge upon which pieces of ordnance and stores, &c. are conveyed to the rampart, and brought from one place to another.

Traineurs, Fr. Men who on a march lag behind, and thereby occasion a slow and disconnected appearance in the line of march. It is the duty of the rear guard to pick up all sluggards, and to report them to head-quarters.

Trajectory line, is the curved line formed by the shot after the explosion to the end of its career.

Trajet, See Ferry.

Tramontane, Fr. The north wind in the Mediterranea is so termed by the French. It is so called, because it blows beyond the hills that are near Rome and Florence.

Tranchant, Fr. Cutting. Une epée à deux trancheans, Fr. A two-edged sword.

Tranchée, Fr. See Trench.

Tranchée double, Fr. A double trench, one side of which serves as a traverse to the other; by which means they are mutually covered from a reverse or enfilade firing.

Tranchee a crochet, Fr. A bending trench, or one in the shape of a hook. This species of trench is found where the line turns, at the extremities of the places of arms, and at the ends of the cavalry.

Tranchee directe, Fr. A trench which is carried, or run out in a straight forward direction, and which serves to shut up any spot from whence you might be enfiladed.

Transfers. Soldiers taken out of one troop or company and placed in another are expelled.

Transfixed. An ancient term used to express the state of being desperately wounded by some pointed instrument, as being run through by a spear, javelin or bayonet; pierced through so that the weapon is fixed in another body.

Transoms. In artillery. Pieces of wood which join the cheeks of gun-carriages; there is but one in a track carriage, placed under the transom-holes; and four in a wheel-carriage, the trail, the centre, the bed, and the breast transom.

Transom-plates, with hooks.—There is one on each side of the siles-pieces, against each end of the transom, the bed-transom excepted, fastened by two transom-bolts.

Transport-sled, with bars. They serve to tie the side-pieces to the transom.

Transpiration, Fr. This word is used by the French in hydraulics, to signify the oozing of water through the pores of the earth. It often happens, in digging a canal through sandy ground, that the transpirations or oozeings, are so plentiful as not to leave water enough for the intended purposes of navigation. This occurred at New-Hussar, when a canal was dug in order to convey materials for its fortifications. The waters having been let in, the whole body of water was absorbed in the space of twenty-four hours. This evil or inconvenience can, however, be remedied; as may be seen in the fourth volume of Pluot's Architecture Hydraulique.

Transport. A vessel in which soldiers are conveyed on the sea. See Embarkation.

Transport-board. An English office established in 1794, which has the entire arrangement of the transport service, and of prisoners of war, in conjunction with the sick and hurt board. It consists of five commissioners, who are captains in the navy, and a secretary.

Transporter, Fr. To transfer, to remove, to change the situation of any thing.

Transporter les files et les rangs dans la bataille dans les evolutions, Fr. To change files or ranks in military evolution. To countermarch any given number of men so as to place the right where the left stood, and make the front rank
When the countermarch is effected on the retreat, by a central conversion, the French distinguish, and use the phrase—
Faire le moulinet; from the similarity of movement round a central point; moulinet signifying capstan, turn-stile, &c.

TRANPOSER les fifies d’un bataillon dans les avantages, Fr. To change the relative position of files in a battalion, that is, to countermarch the whole so as to make the natural front stand where the rear did, and to place those on the left that originally stood on the right.

TRAP. See Ambush, Stratagem, &c.

TRAP, Fr. A falling door.

TRAPEZE, Fr. See Trapezium.

TRAPEZOID, (Trapezolde, Fr.) A figure in geometry which is formed by the circunvolution of a trapezium, in the same manner that a cylinder is by that of a parallelogram.

TRAPEZIUM. A quadrilateral or square figure whose four sides and angles are unequal, and no sides are parallel.

TRAPPINGS. See HOUSES.

TRAVAY, Fr. The Several beams and long pieces of wood which support the body of a windmill.

TRAVADE, Fr. A whirlwind; violent squall accompanied by thunder and lightning.

TRAVAILLER, Fr. To work. In mechanics; to warp, to open, &c. The French say, Ce bois travaille; this wood warps—Le mur travaille; this wall gives way, &c.

TRAVAILLER, a la journée, Fr. To work by the day.—A la piec, by the piece: —à la tâche, by the lump. Should change his uniform or regimentals should change his form or regimentals whilst in garrison, nor within the boundaries of it. Every infraction of this order was punished with three months imprisonment.

TRAVAILLER for espaires, Fr. To execute a work with intervals of labor. TRAVAILLER les esprits des soldats. To work upon the minds of the soldiers. To excite them to insurrection.

TRAVAILLER un pays. To feel the pulse of a country by working upon the minds of the inhabitants; to excite them to support any particular cause.

TRAVAILLEURS, Fr. Literally, workmen, in military matters, pioneers and soldiers employed in fatigue duties.

TRAVAILLEURS, à la tranchée, Fr. A detachment, consisting of a given number of men from each battalion, which is employed in the trenches. The soldiers who are sent upon this duty have only spades and pick-axes, and the officers who command them wear their swords.

TRAVAILSON, Fr. Enablisterie.

TRAVAUX militaires, Fr. Military Works.

TRAVAUX armés, Fr. Advanced works or outworks. The same as piers detached, or dikes. See De Horas.

TRAVEE, Fr. A bay of joints. A scaffold.

TRAVELLING forge. See Forge.

TRAVERS, Fr. A rope which is used to fasten cannon on their carriages, &c. and which serves for various other purposes.

TRAVEE, Fr. Passage; short trip by sea.

TRAVERE. In fortification, is a parapet made across the covert-way, opposite to the slanting angles of the works, near the place of arms, to prevent being entangled. Traverses are 18 feet thick, and as high as the ridge of the glacis.

There are also traverses made by captives; but then they are called tambours.

To TRAVERSER, a gun, or mortar, is to bring it about to right or left with hand-spikes, till it is pointed exact to the object.

TRAVESIER, Fr. A passageboat, &c. It likewise means a wind that blows into port; also a pontoon.

TRAVERSINES, Fr. Pieces of wood which are laid cross-ways in a dyke.

TRAVERSING-plaits, in gun-carriages, are two thin iron plates, nailed on the hind part of a truck carriage of guns, where the hand-spike is used to traverse the gun.

TRAVERSING, in fencing, is the change of ground made by moving to right or left round the circle of defence.

TRAVERSONS, Fr. The large main beams in a wooden bridge, which support the joints, &c. They are likewise called sommiers.

TRAVESTISSEMENT, Fr. Disguise. In the old French service, it was ordained, that no dragoon or foot soldier should change his uniform or regimentals whilst in garrison, nor within the boundaries of it. Every infraction of this order was punished with three months imprisonment.

TRAUMATIC. Vulnerary; useful to wounds; as Traumatic decoction.

TREACHERY. Perfidy; breach of faith.

TREACHERY. Disloyalty; treachery; perfidious dealing.

HIGH TREASON. An offence against the security of the commonwealth, or of the sovereignty. It is a capital crime, and subjects the offender not only to loss of life, but also to forfeiture of all he may possess.

TRECHETOR, Fr. One who betrays.

TRECHETOR, Fr. A place, or body of men. An obsolete word.

TREFLE, Fr. Trefoil. A term used in mining, from the similarity of the figure to trefoil. The simple trefoil has only two leaves; the double trefoil four, and the triple six.

TREILLE, Fr. Any assemblage of weed which is laid cross-ways. Of
which description are the palisadoes, &c. Such as is used for
TREILLIS, Fr. A general term for
iron gratings, &c. Such as is used for
which description are the palisadoes, &c. squares, This arrangement or disposi-
tion of lines is used by painters, engravers,
and engineers, in taking accurate copies
of plans, &c. and is called by the French
TREILLISER. To trellis. To furnish
a trellis.
TRESSEAU, Fr. An ancient term
in fortification. See MARTY.
TRECHANT. Sharp-pointing.
TRENCHES, in a siege, are ditches
made by the besiegers, that they may ap-
proach more securely to the place attack-
ed; on which account they are also called
lines of approach. The tail of the trench is
the place where it was begun, and its
head is the place where it ends.
Trenches are also made to guard an en-
campment.
The trenches are usually opened or
begun in the night time, sometimes with-
in musquet shot, and sometimes within
half or whole cannon shot of the place;
generally about 600 toises. They are

carried on in winding lines, readily par-
allel to the works, so as not to be in view of
the enemy, nor exposed to the enemy's shot.
The workmen employed in the trenches
are always supported by a number of
troops to defend them against the sallies
of the besieged. The pioneers, and other
workmen, sometimes work on their
knees, and are usually covered with
maullets or raulcions; and the troops
who support them lie flat on their faces,
in order to avoid the enemy's shot. On
the angles or sides of the trench, there
are lodgments, or epaulements, in form of
traverses, the better to hinder the sallies
of the besieged, and to favor the advance-
ment of the trenches, and to sustain the
workmen.
The platforms for the batteries are
made behind the trenches; the first at a
good distance, to be used only against the
sallies of the garrison. As the approach-
es advance, the batteries are brought
nearer, to ruin the defences of the place,
and dismount the artillery of the besieged.
The breach batteries are made when the
trenches are advanced near the covert-
way.
If there are two attacks, it will be
necessary to have lines of communication,
or byways, between the two, with places
of arms at convenient distances. The
trenches are 5 or 7 feet high with the pa-
rapets, which is 3 feet thick, with ban-
quettes for the soldiers to mount upon.

The approaches at a siege are generally
carried on upon the capitals of the works
attacked; because the capitals produced
are, of all other situations in the front of
a work, the least exposed to the fire of
either the cannon or musquetery; and are
the least in the line of fire between the
besieged and besieger's batteries. But if,
from particular circumstances, these or
other advantages do not attend the ap-
proaches upon the capitals, they are by
no means to be preferred to other po-
sitions.
The trenches of communication, or zig-
zags, are 3 feet deep, 10 feet wide at bot-
tom, and 13 feet at top, having a berm of
even foot, beyond which the earth is
thrown to form a parapet.
The parallels or places of arms of the
trenches are 3 feet deep, 12 feet wide at
bottom, and 17 or 18 feet wide at top,
having a banquet of about 3 feet wide,
with a slope of nearly as much. See SAP.
The first night of opening the trenches,
the greatest exertions are made to take
advantage of the enemy's ignorance as to
the side of attack; and they are generally
carried on as far in advance as the first
parallel, and are sometimes to the com-
pleteness of that work. The workmen set
out on this duty, each with a fascine of 6
feet, a pick axe, and a shovel; and the
fascines being laid so as to lap one foot
over each other, leave 5 feet of trench for
each man to dig.
The usual method of directing the
trenches or zig-zags is, by observing du-
ing the day some near object in a line
with the salient parts of the work, and
which may serve as a direction in the
night; or if the night be not very dark,
the angles of the works may be seen above
the horizon; but as both these methods
are subject to uncertainty, the following
is proposed to answer every case—
Having laid down the plan of attack, the
exact positions of the flanked angles of
the works of the front attacked, and par-
icularly of those most extended to the
right and left; marked on the plan the
point of commencement for the first por-
tions of zig-zag, the point where it crosses
the capital, and the point to which it
extends on the other side of the capital;
this last point will be the commencement
of the second branch; then mark off the
point where this branch crosses the ca-
pitai, and its extent on the other side;
and this will give the commencement of
the third branch; and so on for the others.
Thus provided with a plan neatly marked
off, it will be very easy, even in the dark-
es night, to lay down the points where
the zig-zags are to cross the capital, and
the points to which they are to be produ-
ce beyond them. The first parallel is
generally run about 600 yards from the
place, and of such extent as to embrace
the prolongation of the faces of all for-
works which fire upon the trenches; and
Horsemanship is used to describe the action of a horse who beats the dust with his fore-feet in moving, without embracing the vault, and time short and near the ground, without being put upon his haunches. This defect is usually occasioned by weakness in the shoulders.

TRESOR, Fr. The military chest.

TRESORIER, Fr. Paymaster. There were formerly on the French military establishment two classes of paymasters, viz., treasurers of the ordinary, and treasurers of the extraordinary, paymasters or treasurers for the ordinary expenses of the service, and ditto for the extraordinary. The latter were accountable to government for a just distribution of stores and provisions, and gave in their estimates and vouchers to the comptroller-general office in Paris. These were formerly called Cléres du trésor ou payeurs, clerks attached to the military chest or paymasters. They were partly the same as our paymasters and commissaries-general on service.

During the monarchy in France there were several treasurers or paymasters-general in ordinary belonging to the army, who had several departments, viz., Trésoriers des gendarmeries et des troupes de la maison du roi, Fr. Treasurers or paymasters attached to the general and king's household.

TREPIGNER. To clatter. In horsemanship it is used to describe the
masters, which have been established in Great Britain, &c. during the present war, seem manifestly to have taken their origin from the old French arrangement.  

TREVET. Any thing that stands upon three legs. An iron instrument to set a pot or saucepan on over the fire. It is likewise used in field-ovens.  

TREUIL, Fr. A roll, an axle-tree, &c.  

TRIARES, Fr. See TRIAIRI.  

TRIAL. Test, examination, experiment. It is in the power of the president to dismiss an officer from the regular, militia, or volunteer service, without any species of investigation or trial. See COURTS MARTIAL, &c.  

TRIANGLE, (Triangle, Fr.) The triangle may be considered as the most simple of all figures. It is composed of three lines and three angles, and is either plain or spherical.  

A plain triangle is one that is contained under three right lines.  

A spherical triangle is a triangle that is contained under three arches of a great circle or sphere.  

A right-angled triangle is one which has one right angle.  

An acute-angled triangle is one that has all its angles acute.  

An obtuse-angled triangle is that which has one obtuse angle.  

An oblique-angled triangle is a triangle that is not right angled.  

An equilateral triangle is one whose sides are all equal.  

An isosceles triangle, \( \triangle \) A triangle \( \triangle \) with two sides equal.  

An scalene triangle. One that has not two sides equal.  

Similar triangles are such as have all their three angles respectively equal to one another.  

Triang:es. The latter of the Scriptures. A small triangular piece of metal, which is used in military bands, emitting a sharp reverberating sound in concord with the rest of the music.  

Triangle likewise mean[a] wooden instrument consisting of three poles which are fastened at top in such a manner, that they may spread at bottom in a triangular form, and by means of spikes affixed to each pole, remain firm in the earth. An iron bar, breast high, goes across one side of the triangle. The triangles are used in the British army for the purpose of inflicting the barbarous and undiscriminating punishment of whipping; a usage which is rendered the more odious by a comparison of the valor and discipline of the French, who do not allow of any such punishments. To the shame of the United States, the practice is tolerated even by law at this moment!  

Shake the triangle. A phrase in the British army, applied in the condition of a man who is whipped with corded lashes on the bare back till he falls into convulsions; when he is said to shake the triangle. Where such barbarity is the mode it is not surprising that they are always beaten in the field.  

TRIANON, Fr. A general French term signifying any pavilion that stands in a park, and is unconnected with the castle or main building. Of this description was the French queen's petit trianon in the neighborhood of Versailles.  

TRIARII. Soldiers so called among the Romans. According to Kennett, the Triarii were commonly veterans, or hard old soldiers, of long experience and approved valor. They had their name from their position, being marshalled in the third place, as the main strength and hope of their party. They were armed with a pike, a shield, a helmet, and a cuirass. They are sometimes called pilati, from their weapon the Pila. See Kennett's Roman Ant. p. 190. They were likewise stiled Tertiarii. A certain number of these veterans was always distributed in each cohort.  

Polybus, in his 6th book, classes the Roman troops under four different heads; the first he calls Pilati or Velites, light-armed men, selected from the lower order of the people, and generally composed of the youngest men in the army. The second class, consisting of pikemen, Iusti, were more advanced in age, and had more experience. The third class, called Principes, were still older, and more warlike than the second.  

The fourth class consisted of the oldest, most experienced, and bravest soldiers. These were always posted in the third rank, as a reserve, to support the others in case they gave way. Hence their appellation of triarii or tertiaris; and hence the Roman proverbs, Ad triarium veniam, signifying thereby, that the last efforts were being made. The triarii were likewise named post elegantiores, from being posted in the rear of the princeps who carried the standard in a legion.  

TRIBUNE, (Tribun, Fr.) A title which was originally given to certain Roman magistrates, who were established for the specific purpose of maintaining the rights of the tribes or mass of the people, in opposition to the possible encroachments of the aristocracy or patricians, on which account they were stiled the tribunes of the people, les tribunes du peuple. The number, at first, was limited to two; but they were subsequently increased to ten. There were likewise military tribunes, tribunes militaires. These held commands of considerable extent in the Roman armies.  

TRIBUNATE, (Tribunat, Fr.) The office of tribune.  

TRICKER, (Déclude, Fr.) The hair trigger is generally used for
TRIANGLE. In architecture, a name common to several little square members or ornaments, as reglets, listels, and platbands. It is more particularly used for a little member fixed exactly over every trilith, under the plataband of the archivolt; from whence hang down the gutters or pleniluniums.

TRINGLE, Fr. A wooden rule.

TRINGLER, Fr. To draw a straight line by means of a stretched piece of paper or cord that is chalked.

TRINOME, Fr. A word used among the French, in algebra, to express any quantity which is produced by the addition of three numbers or quantities that are incommensurable.

TRINOMIAL, or TRINOMIAL ROOT, in mathematics, is a root consisting of three parts, connected together by the signs $+, -,$ and $\times,$ or $x.$

TRINQUET, Fr. A word used in the Levant to signify the mizen or foremost of a ship.

TRINQUETTE, Fr. A sail used on board the ships in the Levant, which is of a triangular shape.

TRIUMPHÉ, Fr. See TRIUMPH.

Arc de Triomphe, Fr. A triumphal arch.
children were sometimes at his feet, and steal away, to take French leave. The crown, which at first was only laurel, but afterwards gold; one hand held a laurel branch, the other a truncheon. His children were sometimes at his feet, and sometimes on the chariot-horses. As the triumphal chariot passed along, the people strewed flowers before it. The music played in praise of the conqueror, amidst the loud acclamations of the people, crying, to triumph. The chariot was followed by the senate clad in white robes; and the senate by such citizens as had been set at liberty or ransomed. The procession was closed by the sacrifices, with offerings and incense; games and combats were celebrated in the public places, and rejoicings appeared everywhere.

TRIUMVIRI, or TRIUMVIRATE. Men employed among the ancient Romans to preserve the public peace, &c. For particulars, see Kennett’s Roman Antiquities, page 121. They likewise signify the three persons, Caesar, Crassus, and Pompey, who seized on the government of the republic, and divided it among them. Hence, the TRIUMPHAL arch which grows wider towards the top. Light troops, according to the same writers, are employed to gain intelligence concerning the enemy, to learn whether he hath decamped, whether he hath built any bridges, and other things of the same nature, of which the general must necessarily be informed, and should have a day fixed for this return. There are other detachments, which should be sent out under intelligent officers, and which should never lose sight of the enemy, in order to send in daily intelligence, to attack small convoys and baggage, to pick up marauders, and harass the advanced guards. There should not be any time fixed for the return of these detachments, neither should they be confined to particular places; they should, however, return to the camp at the expiration of eight or ten days at farthest. The inconvenience arising from confining these detachments
called irregulars, as they act in detached vanquished enemy; raised by the con.

The operations in the spring of 1794, were in an open country near Cambrai; the French then felt the superiority of the enemy’s cavalry; and saw that the irregulars, with which the French army abounded, were useless, and would continue so, unless they could force the British to make war in an enclosed country; and this they effected by obliging them to return into Flanders, to protect their magazines, and cover their communication with them. That country is much enclosed; and there all the irregulars could act. From that hour the British constantly lost ground, holding only those points they thought proper to cover with works; and in the short space of a few weeks, it may be said in a few days, those armies which had been acting, offensively, were actually obliged to act defensively. Was that army diminished by slaughter or sickness? No; but the French armies, it is said, were increased: true; and with what? Irregulars: requisition men or volunteers; first without discipline, but not without ardor to fight: and from the moment the British commenced their sail retreat from Tournay, till they arrived near Soela, nothing was to be seen but the French irregular troops, that is tirailleurs or riflemen.

TROOPER, (Cavalier, Fr.) A horse soldier. According to Dr. Johnson, a trooper fights only on horseback; a dragoon marches on horseback, but fights either as a horseman or footman. There is no such thing as a trooper in the British service. The Blues were the last corps that deserved that appellation; but they now act, like the rest of the cavalry, on foot.

TROPHÉE, Fr. See TROPHY.

Paire trophée, Fr. To glory in.

TROPHY, Something taken from an enemy, and shown or treasured up in proof of victory. Among the ancient, it consisted of a pile or heap of arms of a vanquished enemy, raised by the conqueror in the most eminent part of the field of battle.

The trophies were usually dedicated to some of the gods, especially to Jupiter. The name of the deity to whom they were inscribed, was generally mentioned, as was that also of the conqueror. The spoils were first hung upon the trunk of a tree; but instead of trees, succeeding ages erected pillars of stone or brass, to perpetuate the memory of their victories. To demolish a trophy was looked upon as a sacrilege, because they were all consecrated to some deity.

Trophy-money. Certain money annually raised in several countries towards providing artillery harness, and maintaining the militia.

TROPIQUE, Fr. Tropic. It is likewise used as an adjective, and signifies tropical.

bâton de tropique, Fr. The ceremony which is performed when a person crosses the line for the first time.

TROSSERS, A kind of breeches.

TROUS, A reaching down to the TROUSERS, ankle, worn by some regiment of infantry and light cavalry. See Pantalon.

TROUILLON, Fr. Footway. It more properly means a raised pavement on the sides of a street or bridge, for the convenience of foot passers-by.

TROU, Fr. A hole.

T’rousse de mineur, Fr. A judgement which is made for the safety and convenience of a miner, when he first begins his operation.

TROUS-D’ELOP. A cone reversed. Diameter of the base 4 feet 6 inches: depth 6 feet; pitch 9 feet long, and from 4 to 5 inches square, contain 1 of a cubic fathom of earth, and are usually placed 2 in 3 fathoms.

TROUBLESOME, from the verb to trouble. Importunate, teasing, full of molestation. This word is frequently misspelled in military matters. Many officers who have the public service of their country at heart, are improperly called ‘troublesome’, because they will not add, by negligence or connivance, to the too frequent abuses which exist in the interior economy of military establishment.

TROUGH, A hollow wooden vessel to knead bread in. It is used among the utensils of field bakery.

TROUPE, Fr. Troops, forces.

Troupes légères, Fr. Light troops.

TROUS-DE-LOUP, in field fortifi-
cations, are round holes, about 6 feet deep, and pointed at the bottom, with a stake placed in the middle. They are frequently dug round a redoubt, to obstruct the enemy’s approach. They are circular at the top, or about 43 feet diameter.

TROUSSE, Fr. A quiver. It also signifies any bundle of things tied together, viz. Une trousse de foin, a bundle of hay. See Trous.

TROUSSEAU, Fr. A long piece of wood in the shape of a cane, that is, having one end smaller than the other, which is used in foundries to make cannon moulds.

TROUSSEPAIS, Fr. A sort of iron spade which is used in cutting turf.

TRUCE, (Truce, Fr.) A suspension of arms, or a cessation of hostilities, between two armies, in order to settle articles of peace, bury the dead, &c.

TRUCK. Wooden wheels for the carriage of cannon, &c.

Trucks of a ship-carriage, are wheels made of one piece of wood, from 12 to 19 inches diameter; and their thickness is always equal to the calibre of the gun.

The trucks of garrison-carriages are sometimes made of cast iron.

The French have made improvements on this article; they have two pair of trunnion plates; one pair, in which the gun is placed for action, & the gun is removed into the other for travelling; and are so denominated. See Am. Mil. Lib.

TRUMPET Sounding. See Sounder.

TRUNCHEON. A club; a cudgel; also a staff of command. The truncheon was for several ages the sign of office; generals were presented with the truncheon as the sign of investiture with command; and all those officers who belonged to the suite of the general, and were not attached to regiments, carried a truncheon or staff, whence the name of officers of the staff. See Batton.

To TRUNCHEON. To beat with a truncheon. Dr. Johnson has quoted a passage out of Shakespeare, which is extremely applicable to those blustering imposing characters that sometimes annoy public places, and commit unlawful acts of depredation under the assumed title of captain. Captain! thou abominable cheated if captains were of my mind, they would truncheons you out of taking your names upon you before you earned them!

TRUNCHEONEER. One armed with a truncheon.

TRUNNIONS. In guns. Two cylindrical pieces of metal in a gun, mortar, or howitzer, which project pieces of ordnance, and by which they are supported upon their carriages. See Cannon.

TRUNNION-pipes, are two plates in travelling carriages, mortars, and howitzers, which cover the upper parts of the side-pieces, and go under the trunnions. The French have made improvements on this article; they have two pair of trunnion plates; one pair, in which the gun is placed for action, & the gun is removed into the other for travelling; and are so denominated. See Am. Mil. Lib.

TRUSQUINS, Fr. Tools made use of by carpenters and joiners. They are called trusquins d’assemblage, and trusquins a longue pointe.

TRUSS. A bundle; as a bundle of hay or straw. Any thing thrust close together. Trusses of this description have been sometimes used in military affairs. The men carrying them in front for the purpose of deadening shot.

TRUST. To give credit to, un worthy; dishonest; faithfull; true; not to be trusted. This word is used in the preamble of military commissions, &c., viz. To our trusty and well beloved.

TUBE, Fr. A pipe, a siphon. It is particularly applied to optical instruments.

Tubes of tin plates are the best for service. Tubes must pass through a groove of 2-10 of an inch diameter. The composition is mixed powder, mix up with spirits of wine. They are made up in bundles of 100 each.
If tin tubes get damaged by wet, the composition may be cleared out of them, and they may be filled up with new. If spirits of wine cannot be had, good rum or brandy will answer the purpose.

The bench says, figuratively, 'Let these who have two tails, either to build upon or to build with. It is likewise true of the Turks, in consequence of the victory which was obtained under this new standard, looked upon it as a happy omen; and that since that period they have always fought under it as their banner, and the signal of success.

Whatever may have been the origin, it is certain, that when the Grand Signor takes the field in person, seven of these tails are always carried before him; and when he is in camp, they are planted in front of his tent.

The Grand Visier is entitled to three of these tails.

The three principal bashaws of the empire, viz., those of Bagdad, Grand Cairo, and Brida, have the grand signor's permission to use this mark of distinction, throughout the whole extent of their jurisdiction.

Those bashaws that are not visiers, have the privilege of having two tails. The boys, who are subordinate to the bashaws, have only one.

In the bas-relief which is under the tombstone of John Casimir, king of Poland, in the abbey church of St. Germain, des Prés des Paris, that monarch is represented at the head of his cavalry, with a horse's tail or tug as its standard.

TUGPINS, are the iron pins which pass through the fore end of the shafts of the army carts, to fasten the draught chains for the fore horses.

TUILE, Fr. A tile.

TUILE creuse, Fr. A gutter tile.

Tulle de petit moule, Fr. A tile measuring about ten inches in length, and six in breadth. About 300 cover a square toul.

Tulle de grand moule, Fr. A tile measuring about 13 inches in length, and about eight and a half in breadth. One thousand are sufficient to cover seven toul.

TUILLEAU, Fr. Shad of a tile.

TUILÉRIE, Fr. Tile-kiln.

TUILERIES, The gardens belonging to the 17th century royal palace in Paris, are so called, from the spot having originally been used for tile-kilns.

TUKKEYAH, Ind. Carpenters.

TUKKAR JUMMA, Ind. Money brought more than once to account.

TUMLUB, Ind. A fee, taken by Poms when placed as guards over any person.

TULLE obity, Ind. A summons for pay.

TULWAR, Ind. A sword.

TUMBRELS, (Tombereaux, Fr.) Covered carts, which carry ammunition for cannon, tools for the pioneers, miners, and artillerymen; and sometimes the money of the army.
TUMBEOK, Ind. A bond.
TUNKAW, Ind. An assignment.
TUNES, Fr. Small twigs which are laced, or twisted across around several stakes planted in the earth, and which serve to keep the fascines together.
TUNIC, (Tunique, Fr.) A coat with short sleeves above the elbow; a tunic. It derives its name from the Latin word Tunic,a, a close coat, which was the common garment worn within doors by itself, and abroad under the gown. It was distinguished by different names among the Romans, corresponding with the several shades of the persons that were clothed according to their rank in life. See Kent's Roman Antiquities, p. 311, &c.
TURBAN, (Turban, Fr.) A turban worn by the inhabitants of the East, and was prevalent among the French after their return from the crusades to the Holy Land. They adopted it from the Saracens, and seemed ambitious of appearing in a garb which bore testimony to their taste for valor. These turbans, which were converted into a sort of uniform, obtained the name of Saladin's among the French, in compliment to the emperor Saladin. Hence too the origin of Salade, which not only signified the armor that was worn beneath the tunic of saladin, but also the light helmet of that name.
TUNIQUE, Fr. Among the French signifies likewise a particular dress which was worn by the kings, under their robes of state at a coronation.
TUNTUNGI-Bashi, A Turkish term signifying master of the pipes, a situation under the pacha.
TUQUE, Fr. A tarpaulin.
TURBANT, consisting of several folds of white muslin, &c., which was worn by the Turks and other oriental nations. The blacks belonging to the different bands that are attached to British regiments likewise wear turbans, ornamented with fictitious pearls and feathers. Those of the foot guards are particularly gorgeous. The French say familiarly Turc to Turban, to turn Turk.
The great Turk bears over his arms a turban enriched with pearls and diamonds, under two coronets. The first, which is made of pyramidal points, is heightened up with large pearls, and the uppermost is surmounted with crescents.
Green Turban, A turban worn by the immediate descendants of Mahomed, and by the idols or saints in Turkey.
White Turban, A turban generally worn by the inhabitants of the East.
Polygars, A turban worn by the Polygars who are chiefs of mountainous or woodland districts in the East Indies. In the last accounts from India, this turban has been adopted by the revolted natives of that part of the globe, as a signal of national coincidence and national understanding. The Polygars are in possession of very extensive tracts of country, particularly among the woods and mountains, and are likely to become extremely troublesome to the British. For an interesting account of them see Orme's History of the Carnatic, pages 380, 390, 396, 420, &c.
TURCIE, Fr. Mole; pier; dyke.
TURK, (Turc, Fr.) The following account of the Turks has been given by a modern French writer:—"The Turks are a nation that is naturally warlike, whose armies are commanded by experienced generals, and are composed of bold and executive soldiers. They owe their knowledge of war, and their experience in tactics to three national causes, two of which do credit to their intellects. In the first place, they became emired to arms, from being bred to the profession from their earliest infancy; in the second, they are promoted upon the sole ground of merit, and by an uninterrupted gradation of rank; and in the third, they possess all the opportunities of learning the military art that constant practice and habitual warfare can afford. They are naturally robust, and constitutionally courageous, full of activity, and not at all enervated by the debaucheries of Europe, or the effeminacy of the East. Their predilection for war and enterprise, grows out of the recollection of past victories, and is strengthened by the two most powerful incentives to human daring, viz., reward and punishment; the first of which is extremely attractive, because it is extremely great, and the other equally deterring, because it is rigorous in the extreme. Add to these the strong influence of a religion, which holds out everlasting happiness and seats near Mahomed in heaven, to all who die fighting for their country on the field of battle; and which further teaches them most implicitly to entrust to their generals (like that of the Romans to their dictators) is brief and comprehensive, viz.—"Promote the interests of your country or your sovereign." See Essai sur la Science de la Guerre, tom. i. p. 207.
Such is the character of the Turks, as detailed by their old allies the French. How far it corresponds with reality, especially in regard to military knowledge, we must leave to future historians to determine; observing at the same time, that a few sparks of British valor and perseverance have contributed more to the preservation of the Ottoman empire during the present war, than all the fantastic images, or well-devised hypocrisies of Mahomed could have done. Our brave countrymen, on their return from Egypt,
TYMPANUM. In mechanics, a kind of wheel placed round an axis or cylindrical beam, on the top of which are two levers, or fixed staves, for the more easy turning the axis about, in order to raise a weight required. It is also used for any hollow wheel, wherein one or more persons, or animals, such as horses, dogs, &c. walk to turn it. This wheel is found in cranes, calendars, &c.

VACANCY, (vacance, Fr.) State of an officer’s commission to which no one is appointed.

VACANT, (vacant, e. Fr.) Empty; not filled.

VACANT COMPANIES, (Compagnies vacantes, Fr.) Companies to the permanent command of which no person is appointed.

EMPLOIS-VACANS, Fr. During the French monarchy, seniority of rank or standing did not give the right of promotion. It belonged solely to the king to appoint and nominate all persons to vacant commissions or employments. No other rule can be consistent with the efficiency of a military institution; rotation should be considered only as a contingency, which is only admitted, not permanently established; as no institution so much calls for merit and application to study, as the military profession; merit alone should be the foundation of promotion; then all should endeavor to acquire knowledge; where rotation exists there is no incentive. In the American army, no attention is paid to merit; there is, therefore, very little study.

VACCINE Pox, a disease which has been found to affect the cow on the tear or udder, which arises in pustules resembling small pox; it has been found that this is a perfect preventive of small pox and is now growing into use against prejudice among all civilized nations. All armies should undergo the vaccine inoculation, to prevent the ravages of small pox; one half of the American army that went against Quebec in 1775 was swept all by small pox.

VAGUE-Maitre, Fr. See WAGON-Master.

VAISSEAU, Fr. Ship.

VAISSEAU du premier rang, Fr. A first rate.

VAISSEAU du second rang, Fr. A second rate.

VAISSEAU de guerre, Fr. A man of war.

VAISSEAU Marchand, Fr. A merchant man.

VAISSELLE d’Argent, Fr. Silver utensils; plate. We have already remarked under Table d’Officiers, that during
the old government of France, it was strictly forbidden to use any other plate than silver goblets, spoons, and forks.

VAYVODE, Fr. An old Slavonian word, which signifies prince or general. This title was formerly given to the sovereign princes of Wallachia, Moldavia, and Transylvania.

VAJIR, Azee, Ind. A petition, memorial, or proposal to a superior.

VAKEEL, Ind. An agent-deputy—attorney—a subordinate envoy or ambassador.

VAKIAS, Ind. A weight nearly equal to a pound. It also signifies a measure.

VAKILIT, Ind. The first office in the empire.

VALET, Fr. An instrument which is used by carpenters to keep boards, that have been glued, close together.

VALETS de l'armée, Fr. Officers' servants; they are likewise called by the French, Tartares. In the American army, valets.

Vallets d'Artillerie, Fr. Men attached to the guns on board ships of war, for the purpose of assisting the regular cannoneers. In the American service they are classed by numbers and called, first, second, or third rates.

VALÉT à Pain, Fr. An instrument which is used by surgeons—a small pin to take up the arteries when it is found necessary and according to circumstances.

VALISANT, Fr. Personally brave.

VALOROUS, Fr. Fearless of danger in proportion to circumstances.

VALLEY, (Val, Fr.) A hollow space of ground, generally between hills.

Dr. Johnson defines valor, bravery, and courage almost as synonymous terms. Mr. Addison distinguishes between that sort of courage which springs, by instinct, from the soul, and from that which originates in a sense of duty, and is strengthened by reflection. Count Turpin, on the other hand, establishes a wide difference between bravery and courage, which makes two terms. In page 5, of the preliminary discourse to his Essay on the Art of War, he has the following passage:

"Is the officer—speaking of the requisite qualifications in a general—who loves his duty, and would make himself master of it, under no obligation to ascertain what qualifications his station requires? That he ought to have such or such a quality, under such or such circumstances? That here only bravery is necessary, there only courage? And that he is not always obliged to have both at the same time?"

These two qualities, which are often confounded in the same subject, merit particular distinction; they are not so closely united, but that one may be found without the other. Courage accompaniments for a general, and for all those who command; bravery more necessary for a soldier, and for all those who receive orders; bravery is in the blood; courage in the soul; the first is a kind of instinct, the second a virtue; the one is an impulse almost mechanical, the other a noble and sublime conception. A man is brave at a particular time, and according to circumstances; but he has a courage at all times, and upon all occasions: bravery is impetuous, in as much as it is less the result of reflexion; courage, on the contrary, in proportion as it grows out of reason, becomes more or less impetuous. Bravery is inspired by the force of example, by insensibility of danger, and by the mingled fury of conflict and action; courage is infused by the love of our duty, the desire of glory, and by the zeal we feel to serve our country; courage depends on reason, but bravery on the constitution. Achilles, such as Horace describes him from Homer, implacable, cruel, despising every law except that of the strongest! presents nothing to the idea, but the hardness of a gladiator. But the Roman general, whose death would have occasioned the ruin of the army, the great Scipio, when covered by the bucklers of three soldiers, to avoid a shower of arrows, which the enemy directed against him, approaches in safety the walls he besieged, and standing only a spectator of the action, exhibits the picture of true courage, whilst he contents himself with giving the necessary orders. Bravery again, is involuntary, and does not depend wholly upon ourselves; whereas courage (as Seneca observes) may be acquired by education; provided nature has sown the first seeds of it. Cicero, sheltering himself from the hatred of Carline, unworriedly wanted bravery; but certainly he possessed an elevated firmness of mind (which is in reality cou-
When he disclosed the conspiracy of an enemy to the senate, and pointed out his accomplices; or when he pleaded for Deiotarus against Caesar, his friend and his judge.

The intrepidity of courage, which knows no danger, but makes no other use of that knowledge, than to give directions with greater certainty; courage is always master of itself, provided against all accidents, and regulated by existing circumstances; never confounded by any danger, or to a sight of the motions of the enemy, or of the means by which he may be most effectually opposed.

The chevalier Folard makes the following remarks upon this quality of the mind and heart. He says, in his notes on Polybius, there are various kinds of that species of courage, intrepidity, or strength of soul, which no circumstances can vanquish, and no events can shake. I do not know whether a quality, so diversified in its nature, can be found united in the same person to the full extent of its activity. We generally discover that some men possess a larger proportion of it than others.

In order to form a correct opinion of its existence in the human character, we should find out some individual who had traversed through all the vicissitudes of life, and had uniformly discovered the same sort of mind and intrepidity of heart. But where shall we pick out a character of this sort? Life is too short for the full exercise of its various powers, and were it of a longer date, the circumscribed faculties of man render the research useless. I do not believe it possible to point out an individual thus free from the natural weaknesses that are attached to our constitution, in adversary as well as prosperity been equally firm, and equally determined throughout all the changes to which military operations are unavoidably subject.

This intrepidity and strength of mind, have been peculiarly visible on many extraordinary occasions in some extraordinary characters, who have been equally remarkable on others for weakness and pusillanimity. We have seen them bold to the full extent of hardship during a succession of triumphs; we have then beheld them shamefully agitated under a temporary reverse of fortune, and we have again seen them recover their wonted energy on the first favorable opportunity. These opposite qualities succeed one another; and we see boldness and timidity occupy by turns the same man, in the same action, according to circumstances, the utmost solitude and caution in some instances, and the greatest courage, firmness, and decision in others, during the prosecution of a war.

These fluctuations of the human character may be traced, almost every day, in a certain description of generals. When their understanding becomes perplexed; they know not how to act, and not only omit to make use of favorable occasions, but accidentally afford them to their enemies; whilst, on the other hand, in offensive war, their genius expands itself into a variety of expedients; they create occasions that did not seem to exist, turn them to account, and finally succeed. Thus we see united in the same men, promptitude, vigor, and enterprize in one species of warfare; and timidity, doubt, and consternation in another.

I have known, says Folard, generals of marked intrepidity, (who in trifling matters have discovered a solicitude that approaches to a want of manliness) conceive projects of vast extent, that were full of intricate developments, and discovery by incertitude; and I have seen them conquer the greatest obstacles by their courage and good conduct.

Human nature is so strangely constituted, that whilst one man will rush into danger, as if attracted by blood and devastation, another will not have firmness enough to stand his ground, and face the coming evil. He, who in the hour of battle would give fresh courage to his troops, by being the foremost to advance, has been known to turn pale in the very breach where a soldier's boy or woman has sat undisturbed selling spirits and provisions, or has been discovered to tremble when the signal for storming was given. The very man that would courageously lead his troop into action, or would prove the most expert marksman in the world, were he directed to practise in the front of a whole line, has been known to shrink at a single combat, and would rather rush headlong into a guarded breach, than measure swords or point a pistol with an antagonist. Another again, whom no danger could affect in public contests or in private feats, when visited by sickness is full of apprehension, has recourse to physic, and in proportion as his malady increases, grows timid, scrupulous, and unhappy. It sometimes happens, on the other hand, though rarely, that the rankest coward will be peaceably in bed amidst all the surrounding terrors of dissolution, and will even smile at his agony approaches.

I have seen, continues the same author, (and daily experience confirms his observation) one of the bravest officers in the world, suddenly turn pale in a thunder-storm, and even so far give way to his fears, as to hide himself in a cellar. One man possesses what the French so forcibly term une valour Journaliste, a sort of ephemeral courage, or what depends upon the influence of the moment; the other he is as bold as Achilles; to-morrow he sinks into the degraded character of Therismus.

It is related of general Cadwallader, a man of un conquerable intrepidity in the field, that he trembled at the sight of a
The editor of this work had a friend, a lieutenant Maloch, in the Bengal army, a man of tried valor whose antipathy was of this singular kind, that he could not eat if there was a shoulder of mutton on the table; at a card party at Lady Oakley's, at Madras, a shoulder of mutton was, without his knowledge, placed under his chair, the effect was, he fell from his chair in a state of convulsion from which he did not recover for several hours. The great Condé laughed at a man who said he never felt the sensation of fear, by asking him, "Have you ever snuffed a candle with your naked fingers?" Going into action one of his friends observed to him, "My prince, you tremble." He replied, "My body trembles for the danger into which my soul will lead me." The peculiarities of this celebrated hero were, that he was always affected in his nerves by any surprise, but never lost his presence of mind; some of his friends attempted to surprise him in his tent, and in Austrian uniform made their way to his bed side and awoke him with their noise; he turned round and observed, "If you had excited an emotion of fear in me I should instantly put you to death." Count Turpin, in his Art of War, appears to think that valor which unites deliberation and prudence is preferable to mere muscular bravery. The French pay more attention to the former than the latter, they always reward bravery but prefer valor. Mere animal courage is not sufficient for them, and speaking of those who possess bravery without discretion, they treat it as if mere animal bravery was common to all men, but valor or discrimination rate; hence they say of a merely brave man—Il est brave comme mon épée, mais général—namely, a brainless part of the body. These changes in the character and constitution which are so visible in individuals, may be traced in their influence over whole nations, with little or no deviation. The Persian cavalry still maintains its ancient reputation for valor, and is still dreaded by the Turks. Tacitus relates, that the Sarmatian horse was invincible, but when the men were dismounted, nothing could be more miserably defective in all the requisites of war. Their whole dependence was on their cavalry, and, as far as we are enabled to judge, the same partial quality exists to this day.

The French, until the present revolution, seemed to have preserved the character and disposition of the ancient Gauls. They went with more alacrity into action, and met death, at first sight, with more valor, than they discovered firmness and resolution to wait patiently for its approach. Hurry and agitation appeared more congenial to their minds, than calmness and composure.

In order to conquer, it was found necessary, by their ablest generals, to make them attack and insult their enemy. They grew impatient in slow operations, and gradually became less capable of meeting their antagonists in proportion to the line they were restrained from coming to action. Their whole history, indeed, its continued proof of the justness of this observation, and although their character seems to have undergone considerable changes since their revolution, they have still retained so much of the original cast, as to show more promptitude in offensive, than steadiness and perseverance in defensive operations. Not that they are deficient in the latter, but that the former quality has been more brilliantly successful. To the first they owe their stupendous triumphs under Bonaparte; but they have again been rendered almost equally conspicuous by their conduct in the second under general Moreau, in his celebrated retreat from the Black Forest. But, alas! of what avail is the courage of the multitude, if the generality of their leaders are deficient in those indispensable qualities by which French officers have acquired the greatest reputation. It is like a torch in the hands of a fool or madman, who would as soon lead an enthusiast to precipice, as he would shew him the paths he ought to tread.

**VALUE**, in a general accettation of the term, signifies the rate at which anything is estimated.

**VAN.** The front of an army, the first line; or leading column.

**VAN-guard.** That part of the army which marches in the front. See **Guard.**

**VANCOURIER.** See **Avant coui.**

**VANNE, Fr.** A floodgate.

**VANTAIL, Fr.** Leaf of a folding door.

**VANT-brass.** Armor for a hand. Fr. Armor for a hand.

**Droits de VARECH, Fr.** The right to salvage. A term used in Normandy. Varseh likewise signifies any vessel under water.

**VARLOPE, Fr.** A carpenter's large plane.

**VARSA, Ind.** The rainy season.

**VASANT, Ind.** The mild season or spring.

**VASSALS.** They who in the feudal system were obliged to attend their lord in war, as a tenure by which they held their lands, &c.

**VEDETTE, (Vedette, Fr.)** In war, a centinvel on horseback, with his horse's head towards the place whence any danger is to be feared, and his carabine advanced, with the butt end against his right thigh. Vedettes are generally posted at the avenues, and on all the rising grounds, to guard the several passages when an enemy is encamped.

The Vedettes to the out-posts should always be double, for the following reasons: first, that whenever they make any discovery, one may be detached to the commanding officer of the out-posts; secondly, that they may keep each other watchful; and thirdly, that the vigilance...
of both may render it impossible for any
ting to come near them without being
seen. They should be so placed that no greater dis-
tance from their detachments than 50 or
150 paces.

For particular instructions relative to
the posting of Vedettes, see a treatise on
the duties of an officer in the field, by
Harden Gross; Am. Mil. Lib.

VEKILCHARES. A wood used among
the Turks, which signifies the
same as Fourrier in the French, and cor-
responds with quartermaster.

VELITES. Roman soldiers, who
were commonly some of the Tios, or
young soldiers of mean condition, and
lightly armed. They had their name,
velando, from flying, or a velocitate,
from swiftness. They seem not to have had
a distinct body or companies, but to have hovered in loose order before
the army. Kennedy’s R. A. page 190.

Their arms consisted of a sword and javel-
in, and they had a shield or buckler which was sufficiently large to cover its
man, being round and measuring three
feet and a half in diameter.

They generally wore wolf’s skins, or
some other indifferent ornament upon
their heads, to distinguish them during
action. Their javelins were a sort of
dart, the wood of which measured three
cubits in length, and was about the thick-
ness of a finger. The point was about a
hand’s full breadth in length, and was so
thin and brittle, that it snapped off the
instant it reached or penetrated its object,
so that the enemy could not return it. It
was distinguished in this particular from
other darts and javelins.

VELOCITY. The quickness of mo-
tion with which bodies are moved from
one place to another.

Initial velocity of military projectiles,
as ascertained by the experiments
with the Balistic pendulum at Woolwich, in
1786, 1788, and 1790. These experi-
ments were made with shot of equal di-
ameters, powder of equal strength, and
shells distingished in this particular from
other darts and javelins.

1. That there is very little difference in
the velocities of shot fired from guns of
the same length, but of unequal weights;
the advantage being sometimes in favor of
one and sometimes of the other.

2. That velocities arising from firing
with different quantities of powder, are
nearly in the proportion of the square roots
of the quantities or weights of powder.

3. That the velocities decrease as the
distances increase, arising from the re-
sistance of the air, which opposes the
progress of the shot, in a proportion some-
what higher than the squares of the veloc-
ities throughout; and only to a small va-
nation.

4. That very little advantage is gained
in point of range, by increasing the charge
more than is necessary to attain the ob-
ject, the velocity given by large charges
being very soon reduced to those by mo-
derate charges; those for instance given
by half the shot’s weight are reduced to
an equality with those by one third, after
passing through a space of only 200 feet.

5. That very little advantage is also
gained by increasing the length of guns;
the velocity given by long guns of 22 ca-
libres length of bore, being reduced to an
equality with those of the short guns of
13 1/2 calibres with similar charges, after
passing through the spaces as follows:

<table>
<thead>
<tr>
<th>Shot’s Weight</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>285 lbs</td>
<td></td>
</tr>
<tr>
<td>260 lbs</td>
<td>150</td>
</tr>
<tr>
<td>146 lbs</td>
<td>115</td>
</tr>
</tbody>
</table>

6. That the resistance of the air against
bolts of different diameters with equal ve-
locities, is very nearly in the proportion
of the squares of their diameters; or as
their surfaces.

7. That the velocity is not affected by
compressing the charge more or less, or
by heating the piece in different degrees.

8. That a very great increase of velocity
arises from a decrease of windage; it ap-
pears, that with the established wind-
age of 1-20 between 3 and 4 of the force
is lost.

9. That the velocity of the shot is increased only to a certain point
peculiar to each gun, (a further increase of
powder, producing a diminished velocity)
yet the recoil of the gun is always in-
creased by the increase of charge.

10. That though the velocity of the
shot is increased only to a certain point
peculiar to each gun, (a further increase of
powder, producing a diminished velocity)
yet the recoil of the gun is always in-
creased by the increase of charge.

11. Velocity of a light 6 Pr. length, 4
feet 8 inches; charge 1; weight of the shot; 1578 feet per second.—6 Prs. heavy;
6 feet 8 inches; charge 1; 1705.

12. Velocity of a light 3 Pr. length, 3 feet
4 inches; charge 1; 1745 feet per second.
3 Prs. heavy; 5 feet 9 inches; charge 1; the shot—1584 feet.

Velocity of French Ordnance.

24 Pr. charge 2 lbs. the epyrotte mort-
tar giving 123 fathoms, the initial velocity
is 1425 feet per second; with the epyro-
tette at 90—120 feet; with a charge of
12 lbs. and the epyrotte at 125; the initial
velocity will be 1530.

<table>
<thead>
<tr>
<th>Charge</th>
<th>Epyrotte Velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 pr.</td>
<td>5 lbs. 125 lbs. 1415</td>
</tr>
<tr>
<td>12 pr.</td>
<td>4 lbs. 115 lbs. 1510</td>
</tr>
<tr>
<td>8 pr.</td>
<td>2 lbs. 104 lbs. 1458</td>
</tr>
<tr>
<td>4 pr.</td>
<td>1 lbs. 90 lbs. 1335</td>
</tr>
<tr>
<td>12 lbs</td>
<td>3 lbs. 14 lbs. 1412</td>
</tr>
<tr>
<td>8 lbs</td>
<td>2 lbs. 14 lbs. 1332</td>
</tr>
<tr>
<td>4 lbs</td>
<td>1 lbs. 14 lbs. 1446</td>
</tr>
<tr>
<td>8 inch how.</td>
<td>1 lbs. 390</td>
</tr>
<tr>
<td>6 inch how.</td>
<td>1 lbs. 316</td>
</tr>
<tr>
<td>12 lbs</td>
<td>1 lbs. 570</td>
</tr>
</tbody>
</table>

| 1 lbs | 704 |
VENT, (Lumiere, Fr.) in artillery, or, as it is vulgarly called, the touch-hole, is the opening through which the fire is conveyed to the powder that composes the charge.

As the placing the vents in mortars, howitzers, and guns in the best manner, is so very delicate a point, and about which both authors and practitioners differ, we will advance what the result of experiments has demonstrated. The most common method is to place the vent about a quarter of an inch from the bottom of the chamber or bore; though we have seen many half an inch, and some an inch from the bottom. It has always been imagined, that if the vent was to come out in the bottom, it would be, were it lighted at one end. This gave a grounded supposition, that the greater the quantity of powder which burst before the shot or shell was sensibly moved from its place, the greater force it would receive. To determine this, the king of Prussia, in 1765, ordered that a light three pounder should be cast, with three shifting vents, one at the centre of the charge, one at the bottom, and the other at an equal distance from the bottom and centre one; so that when one was used, the others were effectually stopped. The gun weighed 2 cwt. 1 qr. 20 lb.; its length was 3 feet 3 inches, and the bottom of the bore quite flat. It was loaded each time with one fourth of the shot’s weight; and it was found, that when the lowest or bottom vent was used, the shot went farthest, and the ranges of the others diminished in proportion as they were distant from the bottom. The piece was elevated to 1 degree 30 minutes.

In 1760 the same monarch caused several experiments to be tried with three small mortars of equal size and dimensions, but of different forms in their chambers, each of which held seven ounces and a half of powder. From these experiments it appeared, that the concave chamber produced the greatest ranges, and that the bottom of the chamber is the best place for vents, having in that place the greatest effect.

The vents of English guns are all 2½ of an inch diameter; see remark 9 of the article VELOCITY.

VENT-Field, is the part of a gun or howitzer, which extends to the breech mouldings and the astragal.

VENT-astragal, that part of a gun or howitzer, which determines the vent-field.

VENT, Fr. Wind. The French use this word in various senses.

VENT, field, or VENT-field, is the part of a gun or howitzer, which determines the vent-field.

VENT-astragal, that part of a gun or howitzer, which determines the vent-field.

VENT, Fr. Wind. The French use this word in various senses.

VENT, d’ un boulet de canon, Fr. The wind of a cannon ball.

Coup de vent, Fr. Heavy weather; a squall.

VENT-REG, Fr. A regular wind; such as the trade-wind.

Avoir du vent, Fr. In farray; to be puffy.

VENT-ALISER, Fr. Trade winds.

VENTAIL. That part of a helmet which is made to lift up.

VENT-TAISES, Fr. Air-holes, ventilators.

VENTRE, Fr. Belly; womb. When a piece of ordnance is off its carriage, and lies on the ground, it is said, among the French, to be upon its belly—être sur ventre.

Se coucher ventre à terre. To lie flat on your face. Le capitaine ordonna à ses soldats de se coucher ventre à terre. The captain ordered his men to lie on their bellies. This frequently occurs in action, when any part of the line or detached body is so posted as to be within reach of the enemy’s cannon, and not sufficiently near to make use of its own musquetry.

Demander pardon ventre à terre. To ask pardon in the most obsequious position.

VERANDA, Ind. The covering of houses, being extended beyond the main wall of buildings, by means of a slanting roof, forming external rooms or passages; a colonnade; balcony; gallery.

VERBAL order. Instructions given by word of mouth, which, when communicated through an official channel, are to be considered as equally binding with written ones.

VERBAL, Fr. Verbal; given by word of mouth.

VERD, Fr. Green. This word is sometimes used in a figurative sense by the French, viz. Homme verd or vert, Fr. A resolute man.

TO VERTS, Fr. A giddy thoughtless fellow.

VERD pour les chevaux, Fr. Green forage or grass. In the ancient regime of France, the cavalry and dragoon horses, when quartered in a flat country, were allowed to be thirty days’ grass; the particular period was left to the discretion of the commanding officers. The term was sometimes extended to forty days, without any deduction being made for the ten days; by means of which an emolument was paid to the captains of troops, not only from the horses which were actually sent to grass, but likewise for those that were returned as such.

VERDIGRASSE, (Verm-de-Gris, Fr.) A kind of rust of copper, which is of great use among painters. It is also taken medicinally.
VERGE Rhinlandique, Fr. The Rhinland rod; a measure which is equal to two French toises, or to 12 French feet. It is often used by Dutch engineers, in the measuring of works in a fortification.

VERGE, Fr. Rods.

£asur paires, Vérger, A punishment which was formerly practised among the French. The same as running the gauntlet. See PUNITIONS COrPORELLES.

VERGES, Fr. Twigs or branches measuring from ten to twelve feet in length, which are used in making fences.

VERNIS, Fr. Varnish.

VEROLE, Fr. Great pox, which see.

Vernis, a term used in astronomy, to express an imaginary point in the heavens, which partly corresponds with November.

VERNIS, Fr. Varnish, school.

VERSO, Fr. The same as varso, arbalester, or Jacob's staff; in astrology, a beam of light. See ARBUSTE.

VÉRROU, Fr. A bolt. Who make them cannot substantiate their subject matter. Officers, non-commissioned officers, and soldiers are liable to be punished at the discretion of a general court martial for vexatious conduct. Charges are sometimes peremptorily dismissed, without permitting them to stand the investigation of a court martial, when they appear vexatious and frivolous.

UGHUN, or Yasghun, Ind. A month which partly corresponds with November; it follows Katik.

VIANDE, Fr. Meat; animal food.

VETERAN, (veterans, Lat.) One skilled in the diseases of cattle.

VETERARIER, Fr. See VETERINARY.

VETERINAIRE, Fr. Veterinary school.

VETERINARIAN, (Veterinarian, Lat.) One skilled in the diseases of cattle; a farrier, or horse doctor.

VETERINARY, Pertaining to the science of taking care of cattle.

VETERINARY, Surgeon. The surgeon appointed to take care of the horses in a cavalry or dragoon regiment is so called. He is subordinate and accountable to the veterinary college.

VETILLES, Fr. This word literally signifies trifles. In artificial fire-works they are small serpentine compositions, confined within a single roll of paper. They have generally three lines in diameter.

VEXATION and groundless. Charges of accusation, and appeals for redress of wrongs are so called, when the persons who make them cannot substantiate their subject matter. Officers, non-commissioned officers, and soldiers are liable to be punished at the discretion of a general court martial for vexatious conduct. Charges are sometimes peremptorily dismissed, without permitting them to stand the investigation of a court martial, when they appear vexatious and frivolous.

VERGE por prede haute, Fr. A thick colored glass, through which an observer can see the sunset composition of the sun.

VÉRER, Fr. Broken pieces of glass, which are sometimes used in artificial fire-works.

VÉRIN, Fr. A machine which is used to raise large weights, such as cannon, &c.

VERROU, Fr. A bolt.

VERS, Fr. To spill, to shed. Charges of vexation, and appeals for redress of wrongs are so called, when the persons who make them cannot substantiate their subject matter. Officers, non-commissioned officers, and soldiers are liable to be punished at the discretion of a general court martial for vexatious conduct. Charges are sometimes peremptorily dismissed, without permitting them to stand the investigation of a court martial, when they appear vexatious and frivolous.

VÉSTIBULE, Fr. Porch; entry; hall.

VÉSTIBULE, (vestibule, Fr.) In fortification, is that space or covered ground which is in front of guard houses, and is generally supported by pillars. In a more general sense, any large open space before the door or entrance of a house. Davelier derives the word from vestes; and ambulare, by reason people there begin to let their trains fall. It is properly the outer hall in which persons were accustomed to take off their outer garments or great coats.

VETERAN, (veterans, Fr.) This word comes from the Latin veteranus, a soldier in the Roman militia, who was grown old in the service, or who had made a certain number of campaigns, and on that account was entitled to certain benefits and privileges.

Twenty years service were sufficient to entitle a man to the benefit of a veteran.

These privileges consisted in being absolved from the military oath, in being excused all the duties and functions of a soldier, and in being allowed a certain salary or appointment.

A French soldier is entitled to the honorable name of veteran, after he has served twenty-four years, without any break in his service.

VETERANCE, Fr. The state, condition of an old soldier.

LETTRE de VETERANCE, Fr. The document or letter which enables an old soldier to claim the rights and privileges of a veteran.

VETERINAIRE, Fr. See VETERINARY.

VIEUX VETERINAIRE, Fr. Veterinary.

VIA, Latin. A monthly.

VORGE Rhinlandique, Fr. The Rhinland rod; a measure which is equal to two French toises, or to 12 French feet. It is often used by Dutch engineers, in the measuring of works in a fortification.

VERGE d'or, Fr. The same as arbalet, arbalester, or Jacob's staff; in astronomy, a beam of light.

VERGES, Fr. Rods.

Fraser par les verges, A punishment which was formerly practised among the French. The same as running the gauntlet. See PUNITIONS COrPORELLES.

VERGES, Fr. Twigs or branches measuring from ten to twelve feet in length, which are used in making fences.

VERNIS, Fr. Varnish.

VEROLE, Fr. Great pox, which see.

Notwithstanding the prevalence of this disorder in France, and throughout Europe, it is reckoned so dreadful a visitation, that the French have a familiar proverb which says, Si tu ne craines pas thu ne crales la verrue: if thou art not afraid of God, dread, at least, the pox. Vaccine should be introduced in all armies.

VERRE pour prede haute, Fr. A thick colored glass, through which an observer can see the sunset composition of the sun.

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UGHUN, or Yasghun, Ind. A month which partly corresponds with November; it follows Katik.

VIANDE, Fr. Meat; animal food.

In the old regime every French soldier was allowed half a pound of meat per day.

M. de Louvois, who was minister of war under the old government of France, formed a plan, recommending, that a quantity of dried meat, reduced to powder, should be distributed to troops on service. He took the idea from a custom which is prevalent in the East. He did not, however, live to fulfil his intentions, although he had already constructed copper ovens that were large enough to contain eight bullocks. Very excellent broth can be made of this powder; one ounce of which boiled in water, will supply a sufficient quantity for four men; and one pound of fresh meat gives one ounce of powder; so that, according to the inventor's assertion, there is a saving of one pound. The portable soup-bag
which are sold for sea use, are of the same nature.

VIBRATION. See Pendulum.

VICE-ADMIRAL, (vice-amiral, Fr.) A naval officer of the second rank; who takes rank with generals of horse. Louis XIV. who endeavored to establish a French navy in 1669, created two vice-admirals of the fleet, whom he called vice-admiral of the east, and vice-admiral of the west.

VICTOR. A conqueror; generally applied to the chief officer of a successful army.

VICTORY, (victoire, Fr.) The overthrows or defeat of an enemy in war, combat, duel, or the like.

VICTUALLES, Fr. The provisions which are embarked on board ships of war are so called by the French.

VICTUALER, Fr.Victualler.

VICTUALS. Food or sustenance allowed to the troops, under certain regulations, whether on shore or embarked in transports.

VICTUALLERS. See SUTLERS.

VIEUX corps, Fr. A term used among the French before the revolution, to distinguish certain old regiments. There were six of this description, viz. Picardy, Bourbonnois, Auvergne, Bas, woods, hedges, &c. ; thence to judge of anv thing-viz: which is followed by European generals.

VIEUX, Fr. A small rope which masons use to prevent stones from hitting against a wall when they draw them up.

VENER. To change, to turn round. This word is frequently used figuratively by the French, viz. Tourné et vire; to beat about the bush; as Tourné et visé par qui, in an active sense, to pump another.

VIREAU, Fr. A draw-beam, a capstan.

VIRE-VOLTE, Fr. A quick turning about. It is a term of the inanimate.

VIRE, Fr. A drawbeams, vert. VIRE, Fr. Screw, vice, spindle-tree.

VISER, (visir, Fr.) An officer of VIZIER, (Vizier, Fr.) A dignity in the Ottoman Empire; whereof there are two kinds, the first called by the Turks Vizier Assem, or grand Vizier, first created in 1570 by Amurath the First, in order to ease himself of the chief and weightier affairs of the government. The grand Vizir possesses great powers, especially with regard to military affairs. The orders issued are so thoroughly discretionary, that when he quits Constantinople to join the army, he does not even communicate his intentions to the sultan. This system entirely differs from that which is followed by European generals. When the latter take the field, they proceed upon plans that have been previously digested, and although they may occasionally change their dispositions, yet they never deviate from the essential and governing principles. The grand Vizir, on the contrary, not only makes the arrangements according to his own judgment, but he even changes
an operation that has been previously or­
dered by the sultan, if, on his arrival at
the spot, he should think it expedient to
employ the troops in a different way.
This absolute power is not, however,
without its risk; for if the grand Vizir
should fall in his enterprise, it is more
than probable that the sultan will cause
him to be beheaded; a punishment which
had long been familiar to the Turks, from
the arbitrary manner in which it is prac-
ticed, and the frequency of its occurrence.

When the Turks engage an enemy, the
great Vizir generally remains with the
reserve, and seldom mingle with the
main body, which is soon converted into
a mob of desperate combatants. The
war which had been carried into Egypt,
bid fair to change the whole system of
Turkish tactics.

VIZIER Nawab of Oude, the prime
minister of the Mogul empire; he became
sovereign of Oude and Lucknow; he was
deposed by the British in 1795, and the
sovereignty assumed by the British gov-

VISIERE, Fr. The sight, which is
fixed on the barrel of a musquet or fire-

To VISIT, (Visiter, Fr.) To go to any
place, as quarters, barracks, hospital,
&c. See ORDERLY OFFICER.

VIZARD, Fr. See ORDERLY OFFICER.

VITAL AIR, or azote and oxygene,
not properly called nitrogen gas; the
cause of the rapid ignition of gunpowder,
the expansion of the air or oxygen
which it contains.

VITCHOURA, Fr. A furled coat.

VITESSE, Fr. Dispatch; prompti-
tude of action.

VITONIERES, Fr. Limber holes.

VIVANDIERS, Fr. Victuallers; sut-

VIVAT, Fr. A familiar exclamation,
which is used not only by the French,
but by the Dutch, Germans—it comes
from the Latin, and signifies literally,
May he live!

Vive la Republique! Fr. Long live the
republic!

Quoi donc? Fr. A military phrase which
is used in challenging—Who comes
there?

VIVRE, vivre, Fr. Food, provi-
sions, subsistence. In the Dictionnaire
Militaire, vol. iii, page 572, is an in-
teresting account of the manner in which
occasions, and on festival days, the qua-
ter are dressed in long gowns made of
skins, with borders to them; they like-
wise wear a large knife with an encrust-
ted silver handle, which hangs at their side.
They serve up the victuals in two copper
vessels, that are laid upon a table covered
with a skin, round which seven or eight
persons may be seated.

VIVIERS, Fr. Clerks and other persons
employed by the commissary-
general, or contractor for stores and pro-
visions.

Mons. Dupré D'Aulnay, in a work
entitled Traites des Subsistances Militaires,
has suggested the establishment of a regu-
lar corps of Fieriers or persons whose sole
duty should be to attend to the subsistence
of an army, in the field as well as in gar-
rison. His reasoning upon this subject is
very acute, full of good sense, and seems
calculated to produce that system of eco-

onomy and wholesome distribution, that,
to this day, are so manifestly wanted in
all military arrangements.

VIZIER, Ind. A small coin; it is also a
weight equal to about three pounds; but
differs much in value according to place.

VIZARUT, Ind. The office of Vi-
zier.

VIZIER, Fr. Prime minister.

VIVIERS, Fr. This word is sometimes
written Huians. A certain description of
militia among the modern Tartars was so
called, they formerly did duty in Po-
land and Lithuania, and served as light
cavalry.

It is not exactly known at what epoch
the Tartars first came into Poland and Li-
thuania. Dlugossus, in his history of
Poland, book XI, page 243, relates, that
there were two corps of companies of Tartar
attached to the army which was under the
command of Alexander Withoide, grand
duke of Lithuania. Heinodstein, in his
account of Poland, Rer Polonic, page 153,
makes mention of a corps of Tartars be-
longing to the army which Stephen Bartho,
king of Poland, carried into the
field when he fought the Russians. This
corps, according to the same author, was
headed by one Ulan, who said he was de-
sended from the princes of Tartary:

Although the origin of the word Ulan,
as far as it regards the modern militia so
called, does not appear to be indisputably
ascertained, it is nevertheless well proved,
that besides the Tartar chief under Ste-
phen Bathori, the person, who in the
reign of Augustus the II. formed the first
pulk, or regiment of that description,
was not only called Ulan himself, but
likewise gave the name to the whole body
under his command. This chief is men-
tioned in the records of the military insti-
tution of Poland in 1717. He was then
colonel or commandant of the first pulk,
or king's regiment, and there were three
captains under him of the same name,
viz., Joseph Ulan, David Ulan, and
Cimbay Ulan. In 1744, one of these
was captain of a company of Ulans in
Bohemia, and was afterwards colonel of a
corp of the same description in Poland.
He is likewise said to have been de-
sended from the Tartar princes. It is,
however, left undecided, whether Ula
be the name of a particular family, or
some term given to distinguish some post of bo-
nor; or again, whether it barely signify
a certain class of turbulent haughty sold
such as the Streletz of Russia, or the Ja-
nizaries of Constantinople.

If there be any thing which can make
us question the authenticity or proba-
ility of this account, it is the passage we
find in the book already quoted—viz.
Dlugossus, where he says liv, XIII.
page 403, that in 1467 an ambassador from
Tartary had arrived at Petrikow to an-
ounce to king Casimir, that, after the
death of Ecziiger his son Noteski, he
ascended the throne of Tartary with the
unanimous consent and concurrence of all
the princes and Ulans. Quitting the epi-
nology of the word, and leaving the or-
iginal name to the determination of wise
and scientific men, we shall confine our
present researches to the modern estab-
lishment of the Ulans; which, by the
best accounts, we find to have happened
in 1717.

It is acknowledged by all writers, that
the Ulans are a militia, and not a particu-
lar nation or class of people; their origin,
in this particular, resembles that of the
Cossacks. When Augustus II. in 1717
altered the military establishment of Po-
land, he formed two regiments of Ulans,
one consisting of six hundred men, which
had already existed, and was called the
king's pulk, and the other of four hun-
dred men, which was given to the gen-
geral of the republic.

Augustus III., on his accession to the
throne, took both these regiments into his
own immediate pay, and afterwards aug-
mented the establishment by raising sev-
eral other pulks or corps of this descrip-
tion. The Ulans are mounted on Polish
or Tartar horses, and do the same duty
that is allotted to hussars, with this es-

cential difference, that they are better
armed and accoutred, and that their horses
excel those of the hussars in strength and
swiftness, although they are mostly of
the same size. The Ulans have fre-
quently distinguished themselves on ser-
vice, particularly in Bohemia.

Their principal weapon is a lance five
feet long, at the end of which hangs a
silk streamer, that serves to frighten the
horse of the Ulan's opponent, by its flut-
tering and noise. The lance is suspended
on his right side, by means of a belt that
is worn across the Ulan's shoulders, or
by a small leather thong which goes round
his right arm, the end of the lance rest-
ing in a sort of stay that is attached to the
stirrup. Before the Ulan takes his aim, he
plants his lance upon his foot and the
The dress of the Ulan consists of a short jacket, trowsers or pantaloons made like those of the Turks, which reach to the ankle bone, and button above the hips. He wears a belt across his waist. The upper garment is a sort of Turkish robe with small facings, which reaches to the calf of the leg; his head is covered with a Polish cap. The color of the streamer which is fixed to the end of the lance, as well as that of the facings, varies according to the different pulks or regiments which it is meant to distinguish. The Ulan is likewise armed with a saber, and a brace of pistols which hang from his waistbelt.

As the Ulans consider themselves in the light of free and independent gentlemen, every individual amongst them has one servant, if not two, called poczione or pacholek, whose sole business is to attend to their baggage and horses. When the Ulans take the field, these servants or butlers form a second or detached line, and fight separately from their masters. They are armed with a carbine, which weapon is looked upon with contempt by their masters, and they clothe themselves in the best manner they can.

The Ulans generally engage the enemy in small parties or in squads, after the manner of the hussars; occasionally breaking into the most desultory order. They rely on the greatest skill, and frequently affect to run away for the purpose of inducing their opponents to pursue them loosely; a circumstance which seldom fails to be fatal to the latter, as the instant the pursuers have quitied their main body, the Ulan wheels to the right about, gets a start of him through the activity of his horse, and obtains that advantage, hand to hand, which he possessed whilst he acted in close order.

The instant the Ulans charge an enemy, their servant or batman form and stand in squadrons or platoons, in order to afford them, under circumstances of repulse, a temporary shelter behind, and to check the enemy. The batmen belonging to the Ulans are extremely clever in laying ambushes.

The pay of the Ulans in time of peace is very moderate. Each Ulan paid his own servant or batman, who looked to him only for clothing, arms, and subsistence. On the death of Marshal Saxe, the Ulans in France were reduced; and the dragoons only kept upon the establishment. They were considered as a regiment; being at first given to count de Frise, who was a major-general in the service, and became their colonel, and they remained on that footing until the revolution.

The uniform of the French Ulans consisted of a green coat or cloak, with green breeches, Hungarian half-boots, pinchbeck helmet or squadoon, made of Russian leather; the tail or mane of the helmet consisted of horse-hair, which was colored according to the facings of the brigade; their arms were a lance nine feet long, with a floating streamer at the top, a saber, and a pistol in the waistbelt.

The dragoons were clothed like other regular troops. Their coat was green, with cream-colored facings and scarlet linings; plain brass buttons, and aguillette or tasselled point, made of red worsted; a fawn colored waistcoat, edged round with scarlet; leather breeches; half-boots that were laced up to the calf of the leg; pinchbeck helmet, with a seal skin turban round it, and two rosettes made of pinchbeck; the top was adorned with horse-hair, which hung behind. Their arms consisted of a fusil with a bayonet, which was always fixed; two pistols and a saber; the horse was covered with a wolfskin. The Ulans rode horses which were somewhat lower than those of the dragoons, and were more active.

At the commencement of the French revolution, particularly in 1792 and 1793, the Ulans belonging to the imperial army that endeavored to penetrate into France, were the terror of the inhabitants along the frontiers. The excesses which they committed, and the desolation they occasioned, rendered their very name a signal of alarm. They seldom gave quarter, and they never received it.

ULTIMATUM. A term used in negotiations to signify the last condition or conditions upon which propositions, that
have been mutually exchanged, can be finally ratified.

ULTRAMARINE. From beyond the sea—foreign. It is also the name of a very delicate sky blue, powder made from lapiz lazuli, and used in the drawing of plans, &c.

ULTRAMONTANE. Derived from the Latin Ultra, beyond, and Mons, mountain. This term is principally used in relation to Italy and France, which are separated by the Alps. According to Bayley, Ultramontanus is a name given by the Italians to all people who live beyond the Alps.

UMBO. The pointed boss or prominent part in the centre of a shield or buckler.

UMBRIERE. The visor of a helmet.

UMPIRE. An arbitrator, or a power which interferes for the adjustment of a dispute or contest.

UNARMED. The state of being without armor or weapons.

To UNCASE. In a military sense to display, to exhibit—As to uncase the colors. It is opposed to the word, To Case, which signifies to put up—to ensconce.

To UNCOVER. When troops deploy, the different leading companies or divisions, &c. successively uncover those in their rear, by marching out from the right or left of the column.

UNCONDITIONAL. At discretion; not limited by any terms or stipulations.

UNCOVERED. When troops deploy, the different leading companies or divisions, &c. successively uncover those in their rear, by marching out from the right or left of the column.

UNDAUNTED. Not appalled by fear; valiant.

UNDECAGON. A regular polygon of eleven sides or angles.

UNDER. This preposition is variously used in military matters, viz. - Under Command, (Sous Ordre, Fr.) In subordination; liable to be ordered to do any particular duty.

Under Cover, (a couvert, à l'abri, Fr.) Sheltered, protected, &c. See Cover.

Under Arms, (Sous Arms, Fr.) A battalion, troop, or company is said to be under arms when the men are drawn up regularly armed and accounted, &c.

To UNDERMINE. To dig cavities under anything, so that it may fall, or be blown up; to excavate.

To UNDERMINE. In a figurative sense, to injure by clandestine means. The discipline of the army may be undermined by secret practices and cabals; the want of a fit capacity at the head of the war office, will prise like the want of brains in the human head; and the most enterprising officia may be undermined by the insinuations of a cowardly parasite and reporter.

UNHARNESS. A sapper, one who digs a mine.

UNHARNESSED. Disarmed; disvested of armor or weapons of offence.

UNHORSED. Thrown from the saddle; dismounted.

UNHOSTILE. Not inimical, or belonging to an enemy.

UNIFORM. (Uniforin, Fr.) This word, though in a military sense it signifies the same as regimental, which is used both as a substantive and an adjective, may nevertheless be considered in a more extensive light. Uniform is applied to the different sorts of clothing by which whole armies are distinguished from one another; whereas regimental means properly the dress of the component parts of some national force. Thus the national uniform of the American army is blue, as that of the modern French, white of the Austrian, green of the Russian, and red of the British, &c. But in each of these armies there are particular corps which are clothed in other colors, and whose clothing is made in a shape peculiar to themselves. Though generally speaking each has an uniform within itself, yet this uniform, strictly considered, is a regimental.

With respect to the origin of military uniform, we should make useless enquiries were we to direct our attention to those periods in which the Romans fought covered with metal armor, or with leather which was so dressed and fitted to the body, that the human shape appeared in all its natural formation; nor to those in which the French, almost naked, or at least very lightly clad in thin leather, conquered the ancient Gauls. Better information will be acquired by recurring
UNI UNS 717

The Crusades, which were made into Palestine and Constantinople by the Europeans. We shall there find, that the western nations, France, England, &c., first adopted the use of rich garments, which they wore over their armors, and adorned their dresses with furs from Tartary and Russia.

We may then fix the origin of colored écus to distinguish military corps, &c., in the eleventh century. The Saracens generally wore tunics or close garments under their armor. These garments were made of plain or striped stuffs, and were adopted by the Crusaders under the denomination of coats of arms, Cottes d'armes.

We refer our readers for further particulars to the author of a French work, entitled, Traité des marques nationales, and to page 533, tom. iii. du Dictionnaire Militaire, observing, that the uniforms of the French army were not completely settled under the reign of Louis the XIVth, and that the whole has undergone considerable alterations since the present revolution.

Uniforms des caractères des vêtements.
Fr. Uniform of the old French Wagon Corps. It consisted of white sackcloth edged round with blue worsted, with brass buttons, two in front and three upon each sleeve. They wore a dragoon watering cap, with W upon the front fold, and a tuft at the end. The W and the tuft were made of white worsted.

Uniforms.—Principal color of the military uniforms of the different powers.

<table>
<thead>
<tr>
<th>NATIONS</th>
<th>CAVALRY</th>
<th>INFANTRY</th>
<th>ARTILLERY</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>America</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Ancient Poland</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Black cockades.</td>
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<td>Anspach</td>
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<tr>
<td>Austria</td>
<td>White</td>
<td>White</td>
<td>Grey</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Baden</td>
<td>White</td>
<td>White</td>
<td>Grey</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Bavaria</td>
<td>Red</td>
<td>Blue</td>
<td>Blue</td>
<td>Black and red</td>
</tr>
<tr>
<td>Berno</td>
<td>Red</td>
<td>Blue</td>
<td>Blue</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Brunswick</td>
<td>Blue</td>
<td>Red</td>
<td>Blue</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Denmark</td>
<td>Red</td>
<td>Red</td>
<td>Blue</td>
<td>Blue, red, and white.</td>
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<tr>
<td>England</td>
<td>Blue</td>
<td>Red</td>
<td>Blue</td>
<td>Green cockades.</td>
</tr>
<tr>
<td>France</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Green cockades.</td>
</tr>
<tr>
<td>Hanover</td>
<td>Blue</td>
<td>Red</td>
<td>Mixt Blue</td>
<td>Green cockades.</td>
</tr>
<tr>
<td>Hesse</td>
<td>White</td>
<td>Blue</td>
<td>Blue</td>
<td>Green cockades.</td>
</tr>
<tr>
<td>Holland</td>
<td>White</td>
<td>White</td>
<td>Mixt Blue</td>
<td>Green cockades.</td>
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<tr>
<td>Mayence</td>
<td>Clear Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Green cockades.</td>
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<td>Mecklenburg</td>
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<td>Blue</td>
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</tr>
<tr>
<td>Nassau</td>
<td>Crimson</td>
<td>Clear Blue</td>
<td>Blue</td>
<td>Green cockades.</td>
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<td>Blue</td>
<td>Orat. light blue.</td>
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<td>Prussia</td>
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<td>Green</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Russia</td>
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<td>Blue</td>
<td>Blue</td>
<td>Black cockades.</td>
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<tr>
<td>Sardinia</td>
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<td>Blue</td>
<td>Blue</td>
<td>Black cockades.</td>
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<tr>
<td>Saxe Coburg</td>
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<td>Blue</td>
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<td>Black cockades.</td>
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<tr>
<td>Saxe Gotha</td>
<td>Blue</td>
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<td>Black cockades.</td>
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<tr>
<td>Saxe Hildes</td>
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<td>Black cockades.</td>
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<tr>
<td>Saxe Memingen</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Saxe Weimer</td>
<td>Blue</td>
<td>Green</td>
<td>Green</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Saxony</td>
<td>White</td>
<td>White</td>
<td>Green</td>
<td>Black cockades.</td>
</tr>
<tr>
<td>Spain</td>
<td>Grey</td>
<td>White</td>
<td>Blue</td>
<td>Red and yellow.</td>
</tr>
<tr>
<td>Sweden</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Yellow cockades.</td>
</tr>
<tr>
<td>Wurtemburg</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Yellow cockades.</td>
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</tbody>
</table>

Uniformity. Conformity to one pattern; resemblance of one thing to another.

Union. The national colors are called the union. When there is a blue field with white stripes, quartered in the angle of the American colors, that is of the colors composed of red and white stripes; that blue field is called the Union; and a small colors of blue with white stars is called the Union Jack.

University. In a general acceptance of the word, any nursery where youth is instructed in languages, arts, and sciences. It likewise means the whole in general, generality.

Unspring. A word of command formerly used in the exercise of cavalry, now obsolete.

Unspring your carbag. Quit the reins of your bridle, and take bold of the swivel with the left hand, placing the thumb on the spring, and opening it; at the same time take it out of the ring.
UNTENABLE. Not to be held in possession; incapable of being defended.

UNTRAINED. Not disciplined to exercise or manoeuvre. Wise signifies readiness to do anything.

UNWALLED. Not provided with arms of defence.

UNWEAPONED. Not provided with arms of offence.

UNWANTED. Not to be desired. A soldier that is ready to do any sort of arms of offence.

UTC. See UNTRAINED.

Dernières Volontés, Fr. The last will and testament of a man.

Volontaires, Fr. See Volunteers.

Volonte, Fr. Will, &c. It likewise signifies readiness to do anything. Officer, soldat de bonne volonté. An officer, a soldier that is ready to do any sort of duty.

Voluntiers. Fr. See Volunteers.

VOLTE, Fr. In horsemanship, a bounding turn. It is derived from the Italian word volta; and according to the Farmer's Dictionary, is a round or circular track; a gate of two treads made by a horse going sideways round a centre; so that these two treads make parallel tracks, the one which is made by the fore feet larger, and the other by the hinder feet smaller; the shoulders bearing outwards, and the croup approaching towards the centre.

Voltigeur, Fr. A vaulter; a jumper; a hooverer; the French have trained their light troops to run, vault, and bear fatigue; these troops act as riflemen on foot or horseback; swim rivers with their arms; and vault behind hussars, transported rapidly to some point where it is necessary to make an impression. These corps were formed from an observance of the hardihood and rapidity of American riflemen, by general Berthier, who served in America with

Volunteers. In a general acceptation of the word, any one who enters into the service of his own accord. The signification of it is more or less extensive, according to the conditions under which a man voluntarily engages to bear arms.

Volunteers are also bodies of men...
who assemble in time of war to defend their respective districts, and this generally without pay.

A volunteer. To engage in any affair of one's own accord. Officers and soldiers often volunteer their services on the most desperate occasions; sometimes specifically, and sometimes generally.—Hence to volunteer for any particular enterprise, or to volunteer for general service. In some instances soldiers volunteer for a limited period, and within certain boundaries. Volunteers approach nearer to the regular establishment than the militia.

A sort of hedges bill. It likewise signifies an axe, which the ancient bowmen of France had fixed to their halberts. It is also called a hunter's staff.

An adverb frequently used in military phraseology, viz. to bring into action; as he used his choicest troops on that decisive day. Each from 10 to 20 pails of water; and within certain bounds, two water buckets, one dozen of Flasburgh towels, one dozen of flannel cloths, half a dozen of large sponges, combs, razors, and soap; two large kettles capable of making soup for 30 men, two large tea kettles, two large tea pots, two sauce pans, 40 tin cans of one pint each, 40 spoons, one dozen of knives and forks, two close stools, two bed pans, and two urinals.

A regiment, consisting of 1000 men, and provided with three medical persons, ought to be furnished with hospital necessaries and utensils for at least 40 patients. It should be provided with one straw mattress, one bolster, three sheets, two blankets, and one rug.

For regiments of a smaller number, the quantity of hospital necessaries will of course be proportionally reduced.

The following list of bakery utensils, being the proportion requisite for an army of 30,000 men, has been extracted from the British commissary, to which useful treatise we refer the military reader for a specific description of field ovens, &c. and bakery utensils, being the proportion of four for every hundred men; each set consisting of one palissade, one straw mattress, one bolster, three sheets, two blankets, and one rug.

For regiments of a smaller number, the quantity of hospital necessaries will of course be proportionally reduced.

The French call a voyage to the East Indies, Un voyage de long cours. An adverb frequently used in military phraseology, viz. up; to put in regular array, to make the bread in.

To draw up. To put in regular array, to carry water, containing each from 6 to 7 pails. 12 double iron ovens, 11 feet long, 9 feet diameter, and 3 feet high; 28 troughs and their covers, 10 feet long, 3 feet wide, and 3 feet deep, to knead the dough. 12 large canvas tents (having double coverings) 32 feet long, and 24 feet wide, to make the bread in.

To twist. To put in regular array, to deposit the bread in. 4 ditto, to cool and deposit the bread in.

To use. To employ to any particular purpose; to bring into action; as he used his choicest troops on that decisive day.

The name of a month, which partly corresponds with June; it follows Juy.

To use. To employ to any particular purpose; to bring into action; as he used his choicest troops on that decisive day.

The following list is a vocabulary of the British service. It is directed to be used by officers, to make the bread in.

A vault; an arch.

A sea voyage. Every thing away the coals and cinders from the ovens; 24 iron pitchforks, to scrape the dough from the troughs; 12 copper kettles, containing each from 10 to 12 pails of water; 12 trevets for ditto; 12 barrels with handles, to carry water, containing each from 6 to 7 pails. 12 pails, to draw water; 24 yokes and hooks, to carry the barrels by hand; 24 iron poles, to shove and draw the bread from the ovens; 24 iron pitchforks, to turn and move the firewood and coals in the ovens; 24 spare handles, 14 feet long, for the peles and pitchforks; 24 rates, with handles of the same length, to clear away the coals and cinders from the ovens; 4 large scales, to weigh the sacks and barrels of meal, and capable of weighing 500 lb.; 4 triangles for the said scales; to each must be added 500 lb. of weights, 3 of 100 lb. each, 2 of 50 lb. each, and downwards to half a pound.

A vault; an arch.

The bending of a vault. A vault; an arch.

A vault; an arch.

A vault; an arch.
WAD. (Bouøre, Fr.) In gunnery, a substance made of hay or straw, and sometimes of tow rolled up tight in a ball. It serves to be put into a gun after the powder, and rammed home, to prevent the powder from being scattered, which would have no effect if left uncovered.

Wad-mull. A hollow form of wood to make the walls of a proper size.

Wad-lock. A strong iron screw, like those that serve for drawing corks, mounted upon a wooden handle, to draw out the wadding, or any part of cartridges, which often remain in guns, and when accumulated stop up the vent.

WADA or WADADARY, Ind. A farm of a district.

WADABUNDY, Ind. Stated periods or dates, on which money is to be paid.

WADADAR, Ind. A government officer, who is responsible for the tents of a zemindary.

WADING. Oakum, hay or straw, or any other article generally carried along with the guns to be made into wads.

Experiments relative to the effects of Wadding. The quantity of powder requisite to raise a shell weighing 3 lb. 18 oz. clear of the mortar and bed was found to be 4 oz. 2 dr. without any wadding; but with the help of a little wadding, rammed over the powder, 3 oz. 1 dr. were sufficient. The powder, requisite to raise a shell weighing 106 lb. clear of the mortar and bed, was found to be 2 oz. 6 dr. without any wadding; but with wadding properly rammed over the powder, 2 oz. were found to be sufficient.

To raise a shell of 10 lb. 4 oz. were sufficient without wadding, and only 3 oz. with wadding.

And to raise a shell of 8 lb. 2 oz. were enough without wadding, and 1 oz. two-thirds with wadding.

From the above experiments it may be observed, that the judicious ramming of a little wadding over the powder, adds about 1 part of the whole effect.

WAGGON, in the army, (Charlot, Fr.) is a four-wheel carriage, drawn by four horses, and for sundry uses.

Armament-Waggon. (Charlot d'artillerie, Fr.) A carriage made for transporting all kinds of stores, as also to carry bread, it being lined round in the inside with basket-work. See CAISSON.

Waggon-Train. The wagons, caissons, parts, &c. provided for the use of an army are so called. One great engine, on which the movements of an army depend, is a proper establishment of wagons. In all wars great abuses have, as well as great ignorance, prevailed in this department.

In the seven years war the British had a general contractor for the wagon train, and his contract was kept up until the year before the peace, when that government bought the train of him. In the American war, wagons were considered almost as a privilege by the departments to which they were attached, until Brook Watson was appointed commissary general, who found it necessary to make great reforms in that branch of the service. The same gentleman, when he went out to the continent of Europe with the duke of York in 1793, made use of the wagons of different contractors; but in the beginning of 1794, an experiment was made by raising a corps called the corps of royal waggoners, and purchasing wagons and horses. Its miserable state became proverbial in the army: it failed completely in every part, and on many occasions, the service suffered very materially in consequence of the abuses of contractors.

The idea of this corps was probably taken from the fine well regulated establishment of the French, from whom the Austrians copied it as a standing establishment, having officers and men trained to the service, and a system improved and perfect.

The British wagon train was sold, and every purchaser of not less than fifty wagons was admitted to the advantages of a contract for all the wagons he purchased; he was insured the duration of his contract for three months, and was only to deposit one-third of the same, allowing the remainder to be paid out of his earnings. The form of the contract and the pay of the wagons were generally fixed, and by this mode a most advantageous sale was procured, while a new set of contractors were introduced, with the additional advantage of obliging old contractors to reduce their prices, and coming under the same terms.

The space of ground occupied by a wagon with four horses is about 16 yards; a mile will therefore hold 110 wagons; but allowing a short distance between each wagon in travelling, a mile may be said to contain about 150 wagons. Wagons in convoy may travel from one to two miles per hour, according to the roads and other circumstances. A great object in convoys is to preserve the horses as much as possible from fatigue. For this purpose, if the convoy amounts to many hundred wagons, they must be divided into divisions of not more than 500 each. Should it consist of thousands, it will be advisable to divide them into grand divisions, and then again into subdivisions of 500 each; by this means, and the time of departure being calculated by the following rules, each division may remain at rest, till just before its time of movement; and which will prevent the necessity of the latter part of a large convoy being harassed for a considerable time before its turn to move.
Rules. To find the time in which any number of waggons may be driven off; divide the number of wagons by 100, and multiply by the time of travelling one mile.

Rule 2. To find the time in which any number of waggons will drive over any number of miles: To the time they take in driving off, add the time any one of the wagons takes to travel the distance.

The different divisions of the convoy should be numbered, and obliged each day to change the order of their marching.

WAGGONER, (Charretier, Fr.) One who drives a wagon.

Corps of Waggoners, (Corps de Chari­etiers, Fr.) A body of men employed in the commissariat, so called.

WAGRAM, battle of. Decided the war between France and Austria in 1809.

WAKANAGUR, Ind. A writer of occ­urrences.

WAINROPE. The large cord with which the load is tied on the wagon.

WALL. To lie in wait; to lay wait.

To be driven to the Wall, (Etre acculé, Fr.) A figurative term signifying to be so pressed, that you can neither advance nor retreat.

Walls of a Tent or Marquee. That part of the canvas which is attached to the fly or top by means of hooks and eyes, and which is fixed to the earth with wooden pegs. These walls should be frequently lowered in order to admit fresh air. When there is an hospital tent, this precaution is indispensable, if the weather will permit.

WALLET, See Haversack, Knap­kack.

WALLOON, Spanish troops from the Netherlands.

WAPENTAKE, (from the Saxum.) The same as what we call a hundred, and more especially used in the northern counties of England beyond the Trent. There have been several conjectures as to the original of the word; one of which is, that anciently musters were made of the armor and weapons of the inhabitants of every hundred; and from those that could not find sufficient pledges of their good aettaining, their weapons were taken away; whence it is said Wapentake is derived.

Waring says it was so named, of touching the weapon or spear of their alderman, and swearing to follow him faithfully, and serve their prince truly.

WAR. A contest or difference between princes, states, or large bodies of people, which, not being determinable by the ordinary measures of justice and equity, is referred to the decision of the sword, &c. It is that important event, for which all military education is designed to prepare the soldier. It is for this that in peace, he receives the indulgence of a subsistence from society; and for this he is gratefully bound to secure the repose of that society from the outrage of an enemy and to guard its possessions from the devastations of invaders.

It would be needless as impossible to show, how often the art of war has accomplished the design of its institution; we shall, however, distinguish those English wars which are remarkable in history.

War with Scotland, 1058.

Peace with Spain, 1113.

War with France, 1116.

Peace with Spain, 1127.

Peace with France, 1139.

War with France, 1161.

Peace with Spain, 1186.

War again with France, 1194.

Peace with Spain, 1195.

Peace with Italy, 1215.

Peace with France, 1224.

End of the war.

War of civil between York and Lancaster, 1452.

Peace with France, Oct. 1471.

War. Civil, 1480.

Peace with France, Oct. 6, 1492.

Peace with Scotland, 1503.

War with France, Feb. 4, 1513.

Peace with Scotland, 1515.

Peace with France, Aug. 7, 1514.

Peace with Spain, 1524.

Peace with Scotland, 1527.

War with Scotland, 1542.

War with Scotland, directly after Peace with France and Scotland, June 7, 1547.

War with Spain, 1568.

War with France, 1590.

Peace with both, March 6, 1559.

War with France, June 7, 1557.

Peace with both, 1557.

Peace with France, April 2, 1559.

War with Spain, 1564.

Peace with Spain, 1570.

War with Spain, 1572.
Peace with ditto, Aug. 18, 1604.
War with Spain, 1522.
Peace with Spain and France, April 14, 1529.
War with the Dutch, 1651.
War with Spain, 1655.
Peace with Spain, Sept. 10, 1660.
War with France, Jan. 26, 1660.
Peace with the French, Danes, and Dutch, Aug. 24, 1667.
War with the Algerines, Sept. 6, 1669.
Peace with ditto, Nov. 29, 1671.
War with the Dutch, March, 1672.
Peace with ditto, Feb. 28, 1674.
War with France, May 7, 1689.
Peace of Utrecht, March 13, 1713.
War with Spain, Dec. 1718.
Peace with ditto, 1721.
War with Spain, 1739.
War with France, March 31, 1744.
War with Spain, Jan. 4, 1762.
Peace with France and Spain, Feb. 10, 1763.
War with the caribbs of St. Vincent in 1773.
War against America, commenced July 14, 1774.
War with France, Feb. 6, 1778.
War with Holland, 1780.
Peace with America, France, Spain, Holland, Sept. 3, 1783.
War against France by the English, Prussians, Austrians, and other German powers, in 1793, called the first coalition.
Peace between Prussia and the French Republic, 1795.
Peace between Spain and the French Republic, 1795.
Peace between the French and the Sar- dinians in 1796.
Peace between the French and the Austrians in 1797.
War between the British and Tippoo Sahib in India, in 1797.
War against the French or the second coalition of the Austrians, Russians, Neapolitans, &c. in 1798.
War with the Turks, and the invasion of Egypt by the British forces in 1801.
Preliminaries of peace commenced between the French and the Ottoman empire in consequence of the reduction of Egypt by the British forces in 1801.
Preliminaries of peace between France and Great Britain, &c. called the peace of Amiens, 1801.

War renewed against France in 1804 by England.
War renewed by Austria in 1805.
War by Prussia in 1806.
War renewed by Austria in April 1809.
See Historical Dictionary of war: battles, sieges, by the American editor of this work.

There are five different kinds of war, each of which is to be conducted differently from the other, viz. the defensive; the offensive; that between equal powers, the auxiliary, which is carried on out of our own territories to succor a state or ally, or to assist a weaker whom a more powerful nation has attacked; and a civil war.

Defensive war must be long meditated on in private before it be openly entered upon; when the success will depend upon two essential points: that the plan be justly formed, and the enterprise conducted with order. It should be well and maturely considered and digested, and with the greatest secrecy, lest, however able the leaders or council may be, some of the precautions necessary to be taken, be discovered. These precautions are infinite both at home and abroad.

Abroad, they consist in alliances and security not to be disturbed in the meditated expedition, foreign levies, and the buying up of warlike ammunition, as well to increase our own stores as to prevent the enemy from getting them.

The precautions at home, consist in providing for the security of our distant frontiers, levying new troops, or augmenting the old ones, with as little noise as possible; furnishing your magazines with ammunition; constructing carriages for artillery and provisions; buying up horses, which should be done as much as possible among your neighbors; both to prevent their furnishing the enemy, and to preserve your own for the cavalry and the particular equipages of the officers.

Defensive war, may be divided into three kinds. It is either a war sustained by a nation, which is suddenly attacked by another who is superior in troops and in means; or a nation makes this sort of war by choice on one side of its frontier, while it carries on offensive war elsewhere; or it is a war become defensive by the loss of a battle.

A defensive war which a nation attacked by a superior enemy sustains, depends entirely upon the capacity of the general. His particular application should be, to choose advantageous camps to stop the enemy, without, however, being obliged to fight him; to multiply small advantages; to harass and perplex the enemy in his foraging parties, and to oblige them to do it with great exertion to attack their convoys; to render the passages of rivers or defiles as difficult to them as possible; to force them to keep together; if they want to attack a town, to throw in succours before it is invested; in
short, in the beginning his chief aim should be, to acquire the enemy's respect by his
vigour and activity, and by forcing him to be circumspect in his marches and manner of encampment, to gain time but not, and make the enemy lose it. As a rule general, carefully pursuing these maxims, will give courage to his soldiers, and to the inhabitants of the country; he gives time to his government to take proper precautions to resist the enemy who attacks him; and thus changes the nature of this disagreeable and vexatious kind of warfare.

The management of a defensive war requires more military judgment than that of an offensive one.

A war between equal powers, is that in which the neighboring states take no part, so long as the belligerent parties obtain no great advantage, the one over the other. This sort of war never should last long if you want to reap any advantages from it. As to its rules, they are entirely conformable to those already given; but we may look on it as a certain maxim in this sort of war, that the general who is the most active and penetrating, will ever in the end prevail over him, who possesses these qualities in a lesser degree; because, by his activity and penetration, he will multiply small advantages, till at last they procure him a decisive superiority.

A general who continually attentive to procure himself small advantages, ever obtains his end, which is to ruin the enemy's army, in which case he changes the nature of the war, and makes it offensive; which should ever be the chief object of his prince.

Auxiliary War, is that in which a nation succors its neighbors, either in consequence of alliances or engagements entered into with them; or sometimes to prevent their falling under the power of an ambitious prince.

If it is in virtue of treaties, he observes them religiously, in furnishing the number of troops prescribed, and even offering to augment his quota, if required; or in making a diversion by attacking the common enemy, or its allies.

If it is to prevent a neighboring prince from being crushed by a power, who after this conquest may become dangerous to himself, there are several measures to be taken for your own particular interest. One of the chief is, to exact from those you suspect, the possession of some place in security, lest they make their peace without your knowledge, or to your prejudice.

The general, therefore, who is chosen for the command of this auxiliary corps, should have wisdom, penetration, and foresight; wisdom, to preserve a proper discipline in his corps, that the allied prince may have no cause to complain of him, foresight, and penetration, to prevent his troops suffering for want of subsistence, or being exposed to the perils of war, but in proportion to their numbers with those of the allied prince; and, finally, that nothing shall pass his knowledge, which may be prejudicial to his master.

Civil or internal War, is that between subjects of the same realm, or between parties in the same state. In this sense we say, the civil wars of the Romans destroyed the republic; the civil wars of Grenada ruined the power of the Moors in Spain; the civil wars in England began 1641, and ended in the tyrant's death.

Religious War, is war maintained in a state on account of religion, one of the parties refusing to tolerate the other.

Holy War, is that species of warfare which was anciently maintained by leagues and crusades, for the recovery of the Holy Land.

Civil and religious Wars are ever unhappy for the states who sustain them. These sorts of war, which the animosity of the different parties, and fanaticism, always carry beyond the bounds of humanity, and the duties of society, have in general, no other rules but those of the offensive and defensive. It has however always been observed, that civil wars form great men and good soldiers; because the rich and poor, citizens and laborers, being equally obliged to fight for their property and preservation, have all an opportunity of learning the art of war. This species of war may likewise be called revolutionary, with the additional circumstance, that in the latter sense it is of a more extensive nature.

War of opinion. See Opinion.

Articles of War.

Art. 1. Be it enacted by the senate and house of representatives of the United States of America, in Congress assembled, That from and after the passing of this act, the following shall be the rules and articles by which the armies of the United States shall be governed:

Art. 1. Every officer now in the army of the United States, shall, in six months from the passing of this act, and every officer who shall hereafter be appointed, shall before he enters on the duties of his office, subscribe these rules and regulations.

Art. 2. It is earnestly recommended to all officers and soldiers diligently to attend divine service; and all officers who shall behave indecently or irreverently at any place of divine worship shall, if commissioned officers, be brought before a general court-martial, there to be publicly and severely reprimanded by the president; if non-commissioned officers or soldiers, every person so offending shall, for his first offence, forfeit one sixth of a dollar, to be deducted out of his next pay; for the second offence, he shall not only forfeit a like sum, but be confined twenty-four hours; and for every like offence shall suffer and pay in like manner; which money, so forfeited, shall be applied by
the captain or senior officer of the troop or company, to the use of the sick soldiers of the company or troop to which the offender belongs.

Art. 9. Any non-commissioned officer or soldier who shall use any profane oath or execration shall incur the penalties expressed in the foregoing article, and a commissioned officer shall prevent and pay for each and every such offense one dollar, to be recoverable as in the preceding article.

Art. 4. Every chaplain commissioned in the army or armies of the United States, who shall absent himself from the duties assigned him except in cases of sickness or leave of absence, shall, on conviction thereof before a court-martial, be fined not exceeding one month's pay, besides the loss of his pay during his absence; or be discharged, as the said court-martial shall judge proper.

Art. 5. Any officer or soldier who shall use contemptuous or disrespectful words against the president of the United States, against the vice-president thereof, against the president of the United States, and the congress of the United States, or against any of the United States in which he was inlisted, be taken before the next justice of the peace, or chief magistrate of any city or town corporate, not being an officer of the army, or where recourse cannot be had to the civil magistrate, before the judge advocate, and, in his presence, shall take the following oath or affirmation: "I, A. B., do solemnly swear, or affirm, (as the case may be) that I will bear true allegiance to the United States of America, and that I will serve them honestly and faithfully against all their enemies, or opposers, whatsoever, and observe and obey the orders of the president of the United States, and the orders of the officers appointed over me, according to the rules and articles for the government of the armies of the United States."

Which justice, magistrate, or judge advocate is to give the officer a certificate, signifying that the man inlisted, did take the said oath, or affirmation.

Art. 11. After a non-commissioned officer or soldier, shall have been duly inlisted and sworn, he shall not be dismissed the service without a discharge in writing, and no discharge granted to him shall be sufficient, which is not signed by a field officer of the regiment to which he belongs, or commanding officer, where no field officer of the regiment is present; and no discharge shall be given to a non-commissioned officer or soldier, before his term of service has expired, but by order of the president, the secretary of war, the commanding officer of the department, or the sentence of a general court-martial, nor shall a commissioned officer be discharged the service, but by order of the president of the United States, or by sentence of a general court-martial.

Art. 12. Every colonel, or other officer commanding a regiment, troop, or company, and actually quartered with it, may give furloughs to non-commissioned officers or soldiers, in such numbers, and for so long a time as he shall judge to be most consistent with the good of the service; and a captain or other inferior officer commanding a troop or company, or in anyarrison, fort or barracks of the United States, (his field office being absent), may give furloughs to non-commissioned officers or soldiers, for a time not exceeding twenty days in six months, but not to more than two persons to be absent at the same time, excepting some extraordinary occasion should require it.

Art. 13. At every muster, the commanding officer of each regiment, troop, or company present, shall give to the commissary of musters, or other officer who musters the said regiment,
groop, or company, certificates signed by himself, signifying how long such officers, as shall not appear at the said muster, have been absent, and the reason of their absence. In like manner, the commanding officer of every troop, or company, shall sign certificates, signifying the reasons of the absence of the non-commissioned officers and private soldiers, which reasons, and time of absence, shall be inserted in the muster-rolls opposite the name of the respective absent officers and soldiers. The certificates shall, together with the muster-rolls, be remitted by the commissary of musters, or other officer commanding, to the department of war as specified by the distance of the place will admit.

Art. 14. Every officer who shall be convicted, before a general court-martial, of having signed a false certificate, relating to the absence of either officer or private soldier, or relative to his or their pay, shall be cashiered.

Art. 15. Every officer who shall knowingly make a false muster of man or horse, and every officer or commissary of musters, who shall willingly sign, or allow the signing of muster-rolls, whereby the true muster is concealed, shall, upon proof thereof by two witnesses, before a general court-martial, be cashiered, and shall be utterly disabled to have or hold any office or employment in the service of the United States.

Art. 16. Any commissary of musters or other officer, who shall be convicted of having taken money or other thing, by way of gratification, on the mustering any regiment, troop or company, or on the signing muster-rolls, shall be dismissed from his office, and shall be utterly disabled to have or hold any office or employment in the service of the United States.

Art. 17. Any person who shall presume to insult a person as a soldier, who is not a soldier, shall be deemed guilty of having made a false muster, and shall suffer accordingly.

Art. 18. Every officer who shall knowingly make a false return to the department of war, or to any of his superior officers, authorized to call for such returns, of the state of the regiment, troop, or company, or garrison, under his command; or of the arms, ammunition, clothing, or other stores thereto belonging, shall, on conviction thereof before a court-martial, be cashiered.

Art. 19. The commanding officer of every regiment, troop, or independent company, or garrison of the United States, shall, in the beginning of every month, remit through the proper channels, to the department of war, an exact return of the regiment, troop, independent company, or garrison, under his command, specifying the names of officers then absent from their posts, and the reasons for, and the time of their absence. And any officer who shall be convicted of having, through neglect or design, omitted sending such returns, shall be punished according to the nature of his crime, by the judgment of a general court-martial.

Art. 20. All officers and soldiers, who have received pay, or have been duly enlisted in the service of the United States, and shall be convicted of having deserted the same, shall suffer death, or such other punishment as by sentence of a court-martial shall be inflicted.

Art. 21. Any non-commissioned officer or soldier, who shall, without leave from his commanding officer, absent himself from his troop, company, or detachment, shall, upon being convicted thereof, shall be punished according to the nature of his offence at the discretion of a court-martial.

Art. 22. No non-commissioned officer or soldier, shall enlist himself in any other regiment, troop, or company, without a regular discharge from the regiment, troop, or company, in which he last served, on the penalty of being reputed a deserter, and suffering accordingly. And in case any officer shall knowingly receive and entertain such non-commissioned officer or soldier, or shall retain, after his being discovered to be a deserter, immediately confine him, and give notice thereof to the corps in which he last served, the said officer shall by a court-martial be cashiered.

Art. 23. Any officer or soldier, who shall be convicted of having advised or persuaded any other officer or soldier, to desert the service of the United States, shall suffer death, or such other punishment as shall be inflicted upon him by the sentence of a court-martial.

Art. 24. No officer or soldier shall use any reproachful or provoking speeches or gestures to another, upon pain, if an officer, of being put in arrest; if a soldier, confined, and of asking pardon of the party offended, in the presence of his commanding officer.

Art. 25. No officer or soldier shall send a challenge to another officer or soldier, to fight a duel, or accept a challenge, if sent, upon pain, if a commissioned officer, of being cashiered; if a non-commissioned officer or soldier, of suffering corporeal punishment at the discretion of a court-martial.

Art. 26. If any commissioned or non-commissioned officer commanding a guard, shall knowingly or willingly suffer any person whatsoever to go forth to fight a duel, he shall be punished as a challenger; and all seconds, promoters and carriers of challenges, in order to due shall be deemed principals, and be punished accordingly. And it shall be the duty of every officer, commanding any army, regiment, company, post, or detachment, who is known to a challenge being given, or accepted, by any officers, commissioned officer, or soldier, under his command, or has reason to believe the
same to be the case, immediately to arrest
and bring to trial such offenders.

Art. 27. All officers, of what condition
soever, have power to part and quell all
quarrels, frays, and disorders, though
the persons concerned should belong to
another regiment, troop, or company;
and either to order officers into arrest, or
to non-commissioned officers or soldiers into
confinement, until their proper superior
officers shall be acquainted therewith;
and whenever shall refuse to obey such
officer (though of an inferior rank) or shall
draw his sword upon him, shall be pun-
ished at the discretion of a general court-
martial.

Art. 28. Any officer or soldier, who
shall abridge another for refusing a chal-
lenge, or shall himself be punished as a
challenger; and all officers and soldiers
are hereby discharged from any disgrace or
opinion of disadvantage, which might
arise from their having refused to accept
of challenges, as they will only have acted
in obedience to the laws, and done their
duty as good soldiers, who subject them­
telves to discipline.

Art. 29. No sutler shall be permitted
to sell any kind of liquors or victuals, or
to keep their houses or shops open for
the entertainment of soldiers, after nine at
night, or before the beating of the re-
veilcs, or upon Sundays, during divine
service or sermon, on the penalty of be-
ing dismissed from all future sutting.

Art. 30. All officers commanding in
the field, forts, barracks, or garrisons of
the United States, are hereby required to
see that the persons permitted to sutle,
at a reasonable price, as they shall be an­
swerable for their neglect.

Art. 31. No officer commanding in any
of the garrisons, forts, or barracks of
the United States, shall exact exorbitant
prices for houses or stalls let out to su-
ters, or connive at the like exactions in
others; nor by his own authority, and
for his private advantage, lay any duty or
imposition upon, or be interested in the
sale of any victuals, liquors, or other ne-
cessaries of life, brought into the garrison,
fort, or barracks, for the use of the sol-
diers, on the penalty of being discharged
from the service.

Art. 32. Every officer commanding in
quarters, garrisons, or on the march, shall
keep good order, and to the utmost of his
power, redress all abuses or disorders,
you may be committed by any officer
or soldier under his command; if upon
complaint made to him of officers or sol-
diers, or even all treating any
person, of disturbing fairs or markets, or
of committing any kind of theft, to the
shame of the citizens of the United
States, he, the said commander, who
shall refuse or omit to see justice done to
the offender or offenders, and repARATION
made to the party or parties injured, as far
as part of the offender's pay shall enable
him or them, shall, upon proof thereof,
be cashiered or punished, as a general
court-martial shall direct.

Art. 33. When any commissioned of-
ficer or soldier, shall be accused of a capi-
tal crime, or of having used violence,
or committed any offence against the persons
or property of any citizen of any of the
United States, such as is punishable by
the known laws of the land, the com-
manding officer, and officers of every re-
giment, troop, or company, to which the
person or persons, so accused, shall be
brought, are hereby required, upon appli-
cation duly made by, or in behalf of the
party, or parties injured, to use their un-
most endeavors to deliver over such ac-
cused person or persons, to the civil ma-
gistrate, and likewise to be aiding and as-
sisting to the officers of justice, in ap-
prehending and securing the person or
persons, so accused, in order to bring him or them
to trial. If any commanding officer or
officers, shall wilfully neglect, or shall
refuse, upon the application aforesaid, to
deliver over such accused person or per-
sons, to the civil magistrates, or to be
aiding and assisting to the officers of jus-
tice in apprehending such person or per-
sons, the officer or officers, so offending,
shall be cashiered.

Art. 34. If any officer shall think him-
self wronged by his colonel, or the com-
manding officer of the regiment, and that
upon due application being made to him,
be refused redress, he may complain to
the general, commanding in the state or
territory where such regiment shall be
stationed, in order to obtain justice; who
is hereby required to examine into the
said complaint, and take proper measures
for redressing the wrong complained of,
and transmit as soon as possible, to the
department of war, a true state of such
complaint, with the proceedings had
thereon.

Art. 35. If any inferior officer, or sol-
dier, shall think himself wronged by his
commander, or other officer, he is to complain
of the same, to the commanding officer of the
regiment, who is hereby required to sum-
mon a regimental court-martial, for the
doing justice to the complainant; from
which regimental court-martial, either
party may, if he thinks himself still ag-
rieved, appeal to a general court-martial.
But if, upon a second hearing, the appeal
shall appear vexatious and groundless, the
person, so appealing, shall be punished
at the discretion of the said court-martial.

Art. 36. Any commissioned officer,
store-keeper, or commissary, who shall be
convicted, at a general court-martial, of
having sold, without a proper order for
that purpose, embezzled, misapplied, or
wasted, or through neglect, sold any of
the provisions, forage, arms, clothing,
ammunition, or other military stores,
belonging to the United States, to be spoiled,
or damaged, shall at his own expense,
make good the loss or damage, and shall moreover, forfeit all his pay, and be dismissed from the service.

Art. 37. Any non-commissioned officer or soldier, who shall be convicted, at a regimental court-martial, of having sold, lost, or spoiled, through neglect, his horse, arms, clothes, or accoutrements, shall be put under such weekly stoppages (not exceeding the half of his pay) as such court-martial shall judge sufficient for reparing the loss or damage; and shall suffer confinement or such other corporeal punishment as this crime shall deserve.

Art. 38. Every non-commissioned officer or soldier, who shall be convicted before a court-martial, of having embezzled, or misspent any money which he may have been entrusted for the payment of the men under his command, or for enlisting men into the service, or for other purposes, if a commissioned officer, shall be cashiered, and compelled to refund the money; if a non-commissioned officer, shall be reduced to the ranks, be put under stoppages until the money be made good, and suffer such corporeal punishment as such court-martial shall direct.

Art. 39. Every captain of a troop, or company, is charged with the arms, ammunition, clothing, or other warlike stores belonging to the troop, or company under his command, which he is to be accountable for to his colonel, in case of their being lost, spoiled, or damaged, not by unavoidable accidents, or on actual service.

Art. 40. All non-commissioned officers and soldiers, who shall be found one mile from the camp, without leave, in writing, from their commanding officer, shall suffer such punishment as shall be inflicted upon them by the sentence of a court-martial.

Art. 41. No officer or soldier, shall be out of his quarters, garrison, or camp, without leave from his superior officer, upon penalty of being punished according to the nature of his offence, by the sentence of a court-martial.

Art. 42. Every non-commissioned officer and soldier shall retire to his quarters or tent, at the beating of the retreat; in default of which he shall be punished according to the nature of his offence.

Art. 43. No officer, non-commissioned officer or soldier, shall fail in repairing, at the time fixed, to the place of parade, of exercising or other rendezvous, appointed by his commanding officer, if not prevented by sickness, or some other evident necessity; or shall go from the said place of rendezvous, without leave from his commanding officer, before he shall be regularly dismissed or relieved, on the penalty of being punished according to the nature of his offence by the sentence of a court-martial.

Art. 44. Any commissioned officer, who shall be found drunk on his guard, party, or other duty, shall be cashiered. Any non-commissioned officer or soldier so offending, shall suffer such corporeal punishment as shall be inflicted by the sentence of a court-martial.

Art. 45. Any sentinel who shall be found sleeping upon his post, or shall leave it before he shall be regularly relieved, shall suffer death, or such other punishment as shall be inflicted by the sentence of a court-martial.

Art. 46. Any centinel who shall be found shaving upon his post, or shall remain in camp, on any党的 or quarters, or who shall quit his post or colors before he shall be regularly relieved, shall suffer death, or such other punishment as shall be inflicted by the sentence of a court-martial.

Art. 47. No soldier belonging to any regiment, troop, or company, shall hire another to do his duty for him, or be excused from duty, but in cases of sickness, disability, or leave of absence; and every such soldier found guilty of hiring his duty, as also the party so hired to do another's duty, shall be punished at the discretion of a regimental court-martial.

Art. 48. And every non-commissioned officer conniving at such hiring of duty aforesaid, shall be reduced, and every commissioned officer, knowing and allowing such ill practices in the service, shall be punished by the judgment of a general court-martial.

Art. 49. Any officer belonging to the service of the United States, who, by discharging of firearms, drawing of swords, beating of drums, or by any other means whatever, shall occasion false alarms in camp, garrison, or quarters, shall suffer death, or such other punishment as shall be ordered by the sentence of a general court-martial.

Art. 50. Any officer or soldier, who shall, without urgent necessity, or without leave of his superior officer, quit his guard, platoon, or division, shall be punished according to the nature of his offence, by the sentence of a court-martial.

Art. 51. No officer or soldier shall do violence to any person who brings provisions or other necessaries to the camp, garrison or quarters, of the forces of the United States, employed in any parts out of the said states, upon pain of death, or such other punishment as a court-martial shall direct.

Art. 52. Any officer or soldier, who shall misebehave himself before the enemy, run away, or shamefully abandon any post, post, or guard, which he or they may be commanded to defend, or speak words inducing others to do the like; or shall cast away his arms and ammunition, or shall quit his post or colors to plunder and pillage, every such officer, being duly convicted thereof, shall suffer death, or such other punishment as shall be ordered by the sentence of a general court-martial.
Art. 53. Any person belonging to the armies of the United States, who shall make known the watch-word to any person who is not entitled to receive it, according to the rules and discipline of war, or shall presume to give a parol or watch-word, different from what he received, shall suffer death, or such other punishment as shall be ordered by the sentence of a general court-martial.

Art. 54. All officers and soldiers are to behave themselves orderly in quarters, and on their march; and whatsoever shall commit any waste, or spoil, either in walks of trees, parks, warrens, fish ponds, houses, or gardens, corn fields, enclosures of meadows, estona. or shall maliciously destroy any property whatsoever, belonging to the inhabitants of the United States, unless the accused shall be convicted of having so done, in chief of the armies of the said states, shall (besides such penalties as they are liable to by law,) be punished according to the nature and degree of the offence, by the judgment of a regimental or general court-martial.

Art. 55. Whosoever, belonging to the armies of the United States, employed in foreign parts, shall force a safeguard, shall suffer death.

Art. 56. Whosoever shall relieve the enemy with money, victuals, or ammunition, or shall knowingly harbor or protect an enemy, shall suffer death, or such other punishment as shall be ordered by the sentence of a court-martial.

Art. 57. Whosoever shall be convicted of holding correspondence with, or giving intelligence to, the enemy, either directly or indirectly, shall suffer death, or such other punishment as shall be ordered by the sentence of a court-martial.

Art. 58. All public stores taken in the enemy’s camp, towns, forts, or magazines, whether of artillery, ammunition, clothing, forage, or provisions, shall be secured for the service of the United States; for the neglect of which the commanding officer is to be answerable.

Art. 59. If any commander of any garrison, fortress or post, shall be compelled, by the officers and soldiers under his command, to give up to the enemy, or to abandon it; the commissioned officers, non-commissioned officers, or soldiers, who shall be convicted of having so offended, shall suffer death, or such other punishment as shall be inflicted upon them by the sentence of a court-martial.

Art. 60. All sutlers and retailers to the camp, and all persons whatsoever, serving with the armies of the United States in the field, though not enlisted soldiers, are to be subject to orders, according to the rules and discipline of the said corps.

Art. 61. Officers having brevets, or commissions, of a prior date to those of the regiment in which they serve, may take place in courts-martial and on detachments, when composed of different corps, according to the ranks given them in their brevets, or dates of their former commissions; but in the regiment, troop, or company, to which such officers belong, they shall do duty and take rank, both in courts-martial and on detachments, which shall be composed only of their own corps, according to the commissions by which they are mustered in the said corps.

Art. 62. If upon marches, guards, or in quarters, different corps of the army shall happen to join, or do duty together, the officer highest in rank of the line of the army, marine corps, or militia, by commission thereon, on duty, or in quarter, shall command the whole, and give order for what is needful to the service, unless otherwise specially directed by the president of the U. States, according to the nature of the case.

Art. 63. The functions of the engineers being generally confined to the most elevated branch of military science, they are not to assume, nor are they subject to be ordered on any duty beyond the line of their immediate profession, except by the special order of the president of the U. States; but they are to receive every mark of respect, to which their rank in the army may entitle them, respectively, and are liable to be transferred, at the discretion of the president, from one corps to another, regard being paid to rank.

Art. 64. General courts-martial may consist of any number of commissioned officers, from five to thirteen, inclusively, but they shall not consist of less than thirteen, where that number may be conformed, without manifest injury to the service.

Art. 65. Any general officer commanding an army, or colonel commanding a separate department, may appoint general courts-martial, whenever necessary. But no sentence of a court-martial shall be carried into execution until after the whole proceedings shall have been laid before the officer ordering the same, or the officer commanding the troops for the time being; neither shall any sentence of a general court-martial, in time of peace, extending to the loss of life, or the dismission of a commissioned officer, or which shall, either in time of peace or war, respect a general officer, be carried into execution, until after the whole proceedings shall have been transmitted to the secretary of war, to be laid before the president of the U. States, for his confirmation or disapproval, and orders in the case. All other sentences may be confirmed and executed by the officer ordering the court to assemble, or the commanding officer, for the time being, as the case may be.

Art. 66. Every officer commanding a regiment, or corps, may appoint, for his own regiment, or corps, courts-martial, to consist of three commissioned officers, for the trial and punishment of offences, not capital, and decide upon their sentences. For the same purpose, all of-
icers, commanding any of the garrisons, forts, barracks, or other places, where the troops consist of different corps, may assemble courts-martial, to consist of three commissioned officers, and decide upon their sentences.

Art. 67. No garrison, or regimental court-martial shall have the power to try capital cases, or commissioned officers; neither shall they inflict a fine exceeding one month's pay, nor imprison, nor put to hard labor, any non-commissioned officer or soldier, for a longer time than one month.

Art. 68. Whenever it may be found convenient and necessary to the public service, the officers of the marines shall be associated with the officers of the land forces, for the purpose of holding courts-martial and try offenders belonging to either; and in such cases the orders of the senior officer of either corps, who may be present and duly authorized, shall be received and obeyed.

Art. 69. The judge advocate, or some person deputed by him, or by the general officer commanding the army, detachment, or garrison, shall prosecute in the name of the U. States, but shall so far consider himself as counsel for the prisoner, after the said prisoner shall have made his plea, as to object to any leading question to any of the witnesses, or any question to the prisoner, the answer to which might tend to criminate himself; and to administer to each member of the court, before they proceed upon any trial, the following oath, which shall also be taken by all members of the regimental and garrison courts-martial:

"You A. B. do swear that you will well and truly try and determine, according to evidence, the matter now before you, between the United States of America and the prisoner to be tried; and that you will duly administer justice, according to the provisions of 'an act establishing rules and articles for the government of the armies of the United States,' without partiality, favor, or affection: and if any doubt shall arise, not explained by said articles, according to your conscience, the best of your understanding, and the custom of war in like cases: and you do further swear, that you will not disclose or discover the vote or opinion of any particular member of the court-martial, unless required to give evidence thereof as a witness, by a court of justice, in due course of law; nor divulge the sentence of the court to any but the proper authority, until it shall be duly disclosed by the same. So help you God."}

Art. 70. When a prisoner arraigned before a general court-martial shall: neither shall he inflict a fine exceeding one month's pay, nor imprison, nor put to hard labor, any non-commissioned officer or soldier, for a longer time than one month.

Art. 71. When a member shall be challenged by a prisoner, he must state his cause of challenge, of which the court shall, after due deliberation, determine the relevancy or validity, and decide accordingly; and no challenge to more than one member at a time shall be received by the court.

Art. 72. All the members of a court-martial are to behave with decency and calmness; and in giving their votes, they are to begin with the youngest in commission.

Art. 73. All persons who give evidence before a court-martial, are to be examined on oath or affirmation in the following form:

"You swear or affirm, as the case may be, the evidence you shall give in the cause now in hearing, shall be the truth, the whole truth, and nothing but the truth. So help you God."

Art. 74. On the trials of cases not capital, before courts-martial, the deposees of witnesses not in the line or staff of the army, may be taken before some justice of the peace, and read in evidence; provided, the prosecutor and the person accused are present at the taking the same, or are duly notified thereof.

Art. 75. No officer shall be tried but by a general court-martial, nor by officers of an inferior rank, if it can be avoided; nor shall any proceedings or trials be carried on excepting between the hours of eight in the morning, and three in the afternoon, except in cases, which, in the opinion of the officer appointing the court-martial, require immediate example.

Art. 76. No person whatsoever shall use any menacing words, signs, or gestures, in presence of a court-martial, or shall cause any disorder or riot, or disturb their proceedings, on the penalty of being punished, at the discretion of the said court-martial.

Art. 77. Whenever any officer shall be charged with a crime, he shall be arrested and confined in his barracks, quarters, or tent, and deprived of his sword, by the commanding officer. And any officer who shall leave his confinement before he shall be set at liberty by his commanding officer, or by a superior officer, shall be cashiered.

Art. 78. Non-commissioned officers and soldiers, charged with crimes, shall be
two thirds of the members of
or released by proper authority. more than fifty lashes be inflicted on any
confined, until tried by a court-martial, herein expressly mentioned; nor shall
be lashed or kept any prisoner committed to his sentence of death, or of cashiering an of-
said prisoner is charged. ficer; which, in the cases where he has
charged, by an officer belonging to the forces martial for any offence which shall ap-
committed, shall, within twenty four the pleasure of the president of the United
hours after such commitment, or as soon States can be known; which suspension,
appointed by such court, except the shall be a number of officers adequate to 10
the penalty of being punished for it by the sentence of a court-martial.
Art. 89. Every officer authorised to
sentence of death, or of cashiering an officer; which, in the cases where he has
convicted before a general court-martial of such court to be inflicted.
the discretion of a court-martial. court-martial shall be held, may pardon
punished for disobedience or neglect, at the discretion of a court-martial.
Art. 91. In cases where the general or
martial shall, on demand thereof made by himself or by any person or persons in his behalf, be entitled to a copy of the sentence and proceedings of such court-martial.
Art. 85. In all cases where a commis-
officer is cashiered for cowardice or fraud, it shall be added in the sentence,
which the offender came, or where he his determination. And the colonel or
commanding officer of the regiment or garrison, where any regimental or garrison
court-martial shall be held, may pardon or mitigate any punishment ordered by
courts of a court-martial.
Art. 80. The commanding officer of any
report to the commanding officer of the department, who shall order a court to be assembled at the nearest post or detachment, and the party accused, with necessary witnesses, to be transported to the place where the said court shall be assembled.
Art. 87. No person shall be sentenced to suffer death, but by the concurrence of two thirds of the members of a general court-martial, nor except in the cases
in the office of said secretary, to the end
Art. 88. No person shall be liable to be tried and punished by a general court-martial for any offence which shall ap-
been committed more than two years before the issuing of the order for such trial, unless the person, by reason of having absented himself or some other manifest impediment, shall not have been amenable to justice within that period.
Art. 89. Every officer authorized to
order a general court-martial, shall have power to pardon or mitigate any punish-
more than fifty lashes be inflicted on any
"offender, at the discretion of a court-
martial; and no officer, non-commissioned officer, soldier, or follower of the army, shall be tried a second time for the same

Art. 83. Any commissioned officer con-
before a general court-martial of conduct unbecoming an officer and a gen-
ART. 79. No officer or soldier who shall
be put in arrest, shall continue in confine-

Art. 81. No officer commanding a guard, or provost marshal, shall refuse to receive or keep any prisoner committed to his charge, by an officer belonging to the forces of the United States; provided the officer committing, shall, at the same time, deliver an account in writing, signed by himself, of the crime with which the said prisoner is charged.

Art. 82. Every officer or provost mar-
shalo, to whose charge prisoners shall be committed, shall, within twenty four hours after such commitment, or as soon as he shall be relieved from his guard, make report in writing, to the command-
ing officer, of their names, their crimes, and the names of the officers who com-
mited them, on the penalty of being punished for disobedience or neglect, at the discretion of a court-martial.

Art. 84. In cases where a court-martial may think it proper to sentence a commissioned officer to be suspended from command, they shall have power also to suspend his pay and emoluments for the same time, according to the nature and heinousness of the offence.

Art. 86. The commanding officer of any
court to order a court to be assembled at the nearest post or detachment, and the party accused, with necessary witnesses, to be trans-

Art. 87. No person shall be sentenced to suffer death, but by the concurrence of two thirds of the members of a general court-martial, nor except in the cases
shall also be permitted to cross examine and interrogate the witnesses, so as to investigate fully the circumstances in question.

Art. 92. The proceedings of a court of inquiry must be authenticated by the signature of the recorder and the president, and delivered to the commanding officer; and the said proceedings may be admitted as evidence by a court-martial, in cases not capital, or extending to the dismissal of an officer, provided that the circumstances are such that oral testimony cannot be obtained. But as courts of inquiry may be prevented to dishonorable purposes, and may be considered as engines of destruction to military merit, in the hands of weak and envious commandants, they are hereby prohibited, unless directed by the president of the United States, or demanded by the accused.

Art. 93. The judge advocate, or recorder, shall administer to the members the following oath:

"You shall well and truly examine and inquire, according to your evidence, into the matter now before you, without partiality, favor, affection, prejudice, or hope of reward. So help you God."

After which the president shall administer to the judge advocate, or recorder, the following oath:

"You, A. B. do swear that you will, according to your best abilities, accurately and impartially record the proceedings of the court, and the evidence to be given in the case in hearing, So help you God."

The witnesses shall take the same oath as witnesses sworn before a court-martial.

Art. 94. When any commissioned officer shall die or be killed in the service of the United States, the major of the regiment, or the officer doing the major's duty in his absence, or in any post of garrison, the second officer in command, or the assistant military agent, shall immediately secure all his effects or equipage, then in camp or quarters, and shall make an inventory thereof, and forthwith transmit the same to the office of the department of war, to the end that his executors or administrators may receive the same.

Art. 95. When any non-commissioned officer, or soldier, shall die, or be killed in the service of the United States, the then commanding officer of the troop, or company, shall, in the presence of two other commissioned officers, take an account of what effects he died possessed of, above his arms and accoutrements, and transmit the same to the office of the department of war, which said effects are to be accounted for, and paid to the representatives of such deceased non-commissioned officer or soldier. And in case any of the officers, so authorised to take care of the effects of deceased officers and soldiers, should, before they have accounted to their representatives for the same, have occasion to leave the regiment, or post, by preferment, or otherwise, they shall, before they be permitted to quit the same, deposit in the hands of the commanding officer, or of the assistant military agent, all the effects of such deceased non-commissioned officers and soldiers, in order that they may be secured for, and paid to, their respective representatives.

Art. 96. All officers, conductors, gunners, matrosses, drivers, or other persons whatsoever, receiving pay, or hire, in the service of the artillery, or corps of engineers of the United States, shall be governed by the aforesaid rules and articles, and shall be subject to be tried by courts-martial, in like manner with the officers and soldiers of the other troops in the service of the United States.

Art. 97. The officers and soldiers of any troops, whether militia or others, being mustered and in pay of the U. States, shall, at all times, and in all places, when joined, or acting in conjunction with the regular forces of the U. States, be governed by these rules and articles of war, and shall be subject to be tried by courts-martial, in like manner with the officers and soldiers in the regular forces, save only, that such courts martial shall be composed entirely of militia officers.

Art. 98. All officers, serving by commission from the authority of any particular state, shall, on all detachments, courts-martial, or other duty, whom they may be employed in conjunction with the regular forces of the U. States, take rank, next after all officers of the like grade in said regular forces, notwithstanding the commissions of such militia or state officers may be elder than the commissions of the officers of the regular forces of the U. States.

Art. 99. All crimes not capital, and all disorders and neglects which officers and soldiers may be guilty of, to the prejudice of good order and military discipline, though not mentioned in the foregoing articles of war, are to be taken cognizance of by a general or regimental court-martial, according to the nature and degree of the offence, and be punished at their discretion.

Art. 100. The president of the United States, shall have power to prescribe the uniform of the army.

Art. 101. The foregoing articles are to be read and published once in every six months, to every garrison, regiment, troop or company, mustered or to be mustered in the service of the U. States, and are to be duly observed and obeyed, by all officers and soldiers, who are or shall be in said service.

Sect. II. And be it further enacted, That in time of war, all persons not citizens of, or owing allegiance to the U. States of America, who shall be found lurking as spies, in or about the fortifications or encampments of the armies of the U. States, or any of them, shall suffer death, according to the law and usage of
nations, by sentence of a general court.

Sect. III. And be it further enacted, That the rules and regulations, by which the armies of the U. States have heretofore been governed, and the resolves of Congress thereto annexed, and respecting the same, shall, henceforth be void and of no effect, except so far as may relate to any transactions under them, prior to the promulgation of this act, at the several ports and garrisons respectively, occupied by any part of the army of the U. States. April 10, 1806.

Council of War, is an assembly of great officers called by a general, or commander, to deliberate with him on enterprises and attempts to be made. On some occasions, council of war is also understood of an assembly of officers, sitting in judgment on delinquent soldiers, deserters, coward officers, &c.

War. This word is frequently prefixed or attached to things or persons, in order to distinguish their particular state or functions, viz.

War establishment. See Establishment.

War minister. See Secretary.

Secretary at War. An efficient character at the head of the war office, with whom all matters belonging to the army rest. See Office.

War cry, was formerly customary in the armies of most nations, when they were just upon the point of engaging. Sometimes it consisted of tumultuous shouts, or horrid yells, uttered with an intent to strike terror into their adversaries; such as is now used by the Indians of America, called the war whoop.

Warlike, 2 Military; fit for war. Warlike virtues, are, love of our country, courage, valor, prudence, intrepidity, temperance, disinterestedness, obedience, wisdom, vigilance, and patience. In the last celebration of the anniversary of the destruction of the Bastille, which took place at Paris on the 14th of July, 1789, the French characterized these excellent virtues by the following emblems:—a pelican, a lion, a horse, a stag, a wolf, an elephant, a dog, a jockey ox, an owl, a cock, and a camel.

Warren, a kind of park for rabbits.
boratory, and royal military academy; also famous for proofs and experiments of artillery, and great apparatus of war.

WARRIOR. A soldier; one who fights in war.

WAR-WHOOP. A signal of attack among the Indians. See WARRIOR.

WARGOATL. In ancient military history, an engine for throwing stones and other great masses.

WAR-WORN. Worn out in the service.

WASELAAT, Ind. Collections made.

WASIEL, Baby, Ind. Collections made, and balances struck.

WASHER. A flat circular ring put on the axle-tree, between the inch-pin and small end of the nave, to prevent the same rubbing against the inch-pin and wearing it, as likewise to diminish the friction of the nave.

A WATT. To keep guard; to be attentive and vigilant; to observe the small end of the nave, to prevent the ship's company made, and balance struck.

At eight o'clock in the evening, every man is to be in his birth, except the men on watch. The officer of the watch to go round with a lantern, to see that the above has been complied with.

The whole watch to be always on deck, except when rain obliges them to go down for shelter; and, in fine weather, every man should be upon deck the whole day. The watchtower. A tower on which a sentinel was posted to keep guard against an enemy.

WATERING-CALL. A trumpet sounding, on which the cavalry assemble to water their horses.

WATERING-Cups. A cap, made of leather or cloth, which drogues wear when they water their horses or do stable duty.

WATERING-JACKET. A waistcoat with sleeves, which drogues wear on the above occasions.

WATER-GUN. A water peloton. Among the Indians, there being no W in the French alphabet. It is a Flemish term which is generally used in France, and signifies a ditch full of water, that has been made for the purpose of separating lands and inheritances. These ditches are sometimes large enough to receive small boats or barges, and run through a whole village.

WATTLE. A hurdle made by en-twining twigs together.

WAY. A military road among the Romans and Saxons.

Way of the rounds, in fortification, is a space left for the passage of the rounds between the rampart and the wall of a fortified town. This is not much in use at present. See BRAMBLE.

To WAYLAY. To beset by ambush.

WAYWODE, Ind. A prince; a chief-tain.

WEAPON. An instrument of offense.

WEAPONED. Armed; furnished with arms of offence.

WEAPONLESS. Unarmed; having no weapon.

WEAR. A sluice-gate, or dam to shut up the water.

WEDGE. See COINS, MECHANICAL POWERS, &c.

A WEDGE. In a work translated from the French, and which is entitled, Observations on the Military Art, we find the following description of this instrument. It is composed of five surfaces, two of which are triangular, two long squared, and the fifth arbitrary. The two oblong surfaces, by their inclination to each other, form the point that insinuates itself into the wood, &c. that is to be split, as well as the sides or triangular surfaces, if the triangle, as it is driven, lengthens the slit or opening. They are the square surfaces that first insinuate themselves into the body to be cleft; and what are called triangular surfaces, are only what fill the space that separates the two quadrangular sides. After this refection it appears, that the column has, at least, as just a claim as the triangle, to the term or word wedge. We may even say, with confidence, it has a much better; for a triangle of men ranged according to the same proportion as the triangle of the mechanic wedge, would be of very little force; and a mechanic wedge, of which the incisive angle was as great as that of a triangle of men, would be too large to enter those bodies we should want to cleave or split.

The double phalanx amphistome, of which Epaminondas formed the wedge, contained 3000 men, who were ranged,
in Bouchaud's opinion, one hundred in front, and 30 deep. This opinion, according to some is erroneous. Among the different evolutions of the ancients, the wedge was frequently resorted to, and was in some degree connected with the lozenge, which is a figure in geometry composed of four sides and four angles: of the four angles two are always obtuse, and two acute. The angles, that are acute, are always opposed one to the other, and always in the same number of degrees. According to Aelian, there are many ways of forming quadrals in a lozenge: in the first, they have ranks and files; in the second, neither; in the third, they have files, but not ranks; lastly, in the fourth, they have ranks alone without files. With regard to the wedge, it was a formation which the ancients adopted both in cavalry and infantry evolutions, and was variously used, viz:—

The Wedge of Centurions. This figure was formed on the same principles and movements as the lozenge, as far as the greatest rank of the latter, which served as a base to the triangular wedge. It was therefore as the half of a lozenge, cut and divided at its obscure angles.

The Triangular Wedge of Infantry. Some people pretend, that there were two sorts of triangular wedges in use among the ancients. The first was full, and formed after the same manner as the lozenge, and the wedge of the cavalry. The second was open at the base, and ranged differently from that of the first.

The triangular wedge with a full centre. The soldier occupied, at all times, a square space greater or less in proportion to the requisite order, either at a review, advancing towards the enemy, or standing in a position to receive him. This wedge was formed according to the arithmetical progression = 1, 3, 5, 7, &c.

The open wedge. This species of wedge was formed two different ways, with the Greeks and Romans. Bouchaud de Bussy, who takes them, one from Aelian, whom he translates, and the other from Vegetius, gives us a third, which appears to be of his own invention, and is very much superior to the other two. According to Aelian, Epaminondas the Theban general employed the open wedge at the battle of Leuctra, and overthrew the Lacedemonians, whose array was much superior to the one he commanded. To form this wedge, the two divisions of a double phalanx amphistome, are to unite together at the head, being separate or open at the tail or rear; which gives them a near resemblance of the Greek letter Ω. Bouchaud de Bussy formed the wedge in the following manner:

"The same body of troops being in array, may likewise, says he, form the wedge in marching forward, and this manoeuvre requires no preliminary movement. The three divisions being marked, as well as the three files of the centre which compose the head of the wedge, the following words of command are given. Market divisions, prepare to form the wedge in advancing, march. At the first notice, the files and ranks close suddenly; at the second, the three files of the centre, which will be the two left files of the division on the right, and the first right file in the division on the left, march straight forward; at their second pace, the first file, that is contiguous to them on the right, and that which is equally contiguous on the left, move in their turn, so as to have their chiefs or leaders on a line, and in a rank, so as to be, with the second soldiers of the three files of the centre; at the second pace of the files, who have made the second motion, the files that touch them march immediately likewise; and the same manoeuvre is to continue successively; each head of a file taking notice not to move, until the moment he finds himself on a line with the second man of the file contiguous, &c."

This method is beyond dispute the most simple, short, and secure that can be devised. The men occupy necessary and proper spaces, and if the enemy's resistance should stop their head, the rest of the files, continuing their movements, would all arrive on the same front to ensure together, that is, they would be in their primitive order of the phalanx. This author, to whose observations we refer from page 170 to page 203, thus concludes: we shall only remark, that all terms, metaphorically applied, sooner or later produce doubts and uncertainty. Neither a column or triangle of men should have ever been denominated a wedge; for a line of troops is not formed to be split like a piece of timber; it may be opened, broken through, or divided into as many parts as possible.

Weights, in military matters, are those in general use, except in artillery, where hundreds are made use of, of each of 13 lb. quarters, each of 24 lb. and pounds, each of 16 ounces. Every officer should know the weight of the ordinary musquet, rifle, carbine, and musquetoon; the weight of powder according to quality required for each gun, and for practice and service, as well as the range of each weapon.

Artillery officers should know the weight of metal in iron and brass guns of every calibre: they should know the difference between the weight of metal in guns formerly and at present, and the reason for the reduction of the weight of metal; they should know the length as well as weight of guns, and the weight of cannon ball, and the windage allowed for cannon shot; they should know the weight allowed for case, cannon, grape shot, and the weight of powder in every case. They should know the weight of mortar
of every dimension, and of the shells water craft can bear and carry on streams or rivers; and the expense of carriage by weight or measure in every situation. Military men should know the weight of men, horses, and every description of matter used or liable to be moved in service.

**TABLE OF TROY-WEIGHT,** showing the quantity of grains Troy-Weight contained by each of the weights used in the trade of precious metals, and the relation of foreign weights to 100 pounds Troy-Weight.

<table>
<thead>
<tr>
<th>Countries and Places</th>
<th>Names of the Weights</th>
<th>Contents of each to 100 pounds</th>
<th>Equiv. of each to 100 weight grains</th>
<th>Num.100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amsterdam</td>
<td>mare</td>
<td>3708</td>
<td>151,66</td>
<td></td>
</tr>
<tr>
<td>Antwerp</td>
<td>mare</td>
<td>3708</td>
<td>151,66</td>
<td></td>
</tr>
<tr>
<td>Augsburg</td>
<td>mare</td>
<td>3643</td>
<td>149,09</td>
<td></td>
</tr>
<tr>
<td>Basel</td>
<td>mare</td>
<td>3616</td>
<td>149,39</td>
<td></td>
</tr>
<tr>
<td>Berlin</td>
<td>mare</td>
<td>3813</td>
<td>151,00</td>
<td></td>
</tr>
<tr>
<td>Bern</td>
<td>tola</td>
<td>3709</td>
<td>151,64</td>
<td></td>
</tr>
<tr>
<td>Bombay</td>
<td>mare</td>
<td>3612</td>
<td>149,40</td>
<td></td>
</tr>
<tr>
<td>Bonn</td>
<td>mare</td>
<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
<tr>
<td>Botzen</td>
<td>tola</td>
<td>3708</td>
<td>151,64</td>
<td></td>
</tr>
<tr>
<td>Bremen</td>
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<td>3708</td>
<td>151,64</td>
<td></td>
</tr>
<tr>
<td>Breslaw</td>
<td>mare</td>
<td>3616</td>
<td>159,69</td>
<td></td>
</tr>
<tr>
<td>Brunswick</td>
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<td>3603</td>
<td>159,82</td>
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</tr>
<tr>
<td>Brussels</td>
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<td>159,82</td>
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<td>Cairo</td>
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<tr>
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<td>3603</td>
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<tr>
<td>Constantinople</td>
<td>secky</td>
<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
<tr>
<td>Copenhagen</td>
<td>mare</td>
<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
<tr>
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<td>mare</td>
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</tr>
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<td>Cracow</td>
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<td>3603</td>
<td>159,82</td>
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<td>159,82</td>
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<td>159,82</td>
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<td>Florence</td>
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<td>Francfort</td>
<td>mare</td>
<td>3603</td>
<td>159,82</td>
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<tr>
<td>Genoa</td>
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<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
<tr>
<td>Hamburg</td>
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<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
<tr>
<td>Hannover</td>
<td>mare</td>
<td>3603</td>
<td>159,82</td>
<td></td>
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<tr>
<td>Holland</td>
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<td>3603</td>
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<td>Japan</td>
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<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
<tr>
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<td>3603</td>
<td>159,82</td>
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<tr>
<td>Leghorn</td>
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<td></td>
</tr>
<tr>
<td>Leipzig</td>
<td>mare</td>
<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
<tr>
<td>Liege</td>
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</tr>
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<td>Lubec</td>
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<tr>
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<tr>
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<tr>
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<td>159,82</td>
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<td>159,82</td>
<td></td>
</tr>
<tr>
<td>Prague</td>
<td>mare</td>
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<td>159,82</td>
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<td></td>
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<td>159,82</td>
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</tr>
<tr>
<td>Kaffa</td>
<td>mare</td>
<td>3603</td>
<td>159,82</td>
<td></td>
</tr>
</tbody>
</table>
THE following examples will shew in what manner the proportion between the weights of any two given countries may be ascertained.  

Examples.

It is required to reduce 100 mares of Hamburg into mares of France.  

The following equation:  

\[
\text{1 mare of Hamburg} = \text{3608 grains} \quad \text{1 mare of France} = \text{3780 grains}
\]

According to the table prefixed, state the result.

<table>
<thead>
<tr>
<th>Countries and Places</th>
<th>Names of the Weights</th>
<th>Contents of each weight (pounds)</th>
<th>Grains</th>
<th>Equiv. to 100 pounds</th>
<th>Equiv. to 1000 pounds</th>
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</thead>
<tbody>
<tr>
<td>Rome</td>
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<td>1699</td>
<td>193.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td>pound</td>
<td>9314</td>
<td>91.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sienna</td>
<td>pound</td>
<td>5779</td>
<td>111.22</td>
<td></td>
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</tr>
<tr>
<td>Spain</td>
<td>marc</td>
<td>3551</td>
<td>153.21</td>
<td></td>
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</tr>
<tr>
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<td>tola</td>
<td>3532</td>
<td>177.13</td>
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<td></td>
</tr>
<tr>
<td>Surat</td>
<td>mithical</td>
<td>1875</td>
<td>360.35</td>
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</tr>
<tr>
<td>Tripoli</td>
<td>ounce</td>
<td>1584</td>
<td>316.10</td>
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<tr>
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<td>marc</td>
<td>758</td>
<td>780.10</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>758</td>
<td>780.10</td>
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<tr>
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<td>3642</td>
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<tr>
<td>Warneburg</td>
<td>marc</td>
<td>3015</td>
<td>159.14</td>
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</table>

The table of Avoirdupois Weight, showing the quantity of grains Troy-weight contained by each of the weights used in the sale of merchandise, and the relation of foreign weights to 100 pounds and 112 pounds Avoirdupois weight.
<table>
<thead>
<tr>
<th>Countries and Places</th>
<th>Names of the Weights</th>
<th>Contents of each weight - Grains.</th>
<th>Equiv. to 100 pounds</th>
<th>Equiv. to 112 pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcelona</td>
<td>pound</td>
<td>6244</td>
<td>112.65</td>
<td>126.19</td>
</tr>
<tr>
<td>Basil or Basle</td>
<td>pound</td>
<td>7502</td>
<td>93.53</td>
<td>107.64</td>
</tr>
<tr>
<td>Batavia</td>
<td>catti</td>
<td>9450</td>
<td>74.68</td>
<td>82.65</td>
</tr>
<tr>
<td>Bautzen</td>
<td>pound</td>
<td>8090</td>
<td>104.65</td>
<td>117.18</td>
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<td>Bayonne</td>
<td>livio</td>
<td>7594</td>
<td>92.65</td>
<td>106.79</td>
</tr>
<tr>
<td>Bayreuth</td>
<td>pound</td>
<td>7989</td>
<td>87.63</td>
<td>98.14</td>
</tr>
<tr>
<td>Belliefakee</td>
<td>maund</td>
<td>11773</td>
<td>59.40</td>
<td>66.59</td>
</tr>
<tr>
<td>Bengal</td>
<td>mattress maund</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
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<tr>
<td>Bergamo</td>
<td>pound pesa forte</td>
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<td>7710</td>
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<tr>
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<td>1652</td>
<td>96,57</td>
<td>98,06</td>
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<tr>
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<td>23755</td>
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<td>1652</td>
<td>96,57</td>
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The following examples will shew in what manner the proportion between the weights of any two given countries may be ascertained.

**Examples.**

It is required to reduce 100 kilogrammes of France into pounds of Amsterdam.

The kilogramme of France weighing 15446 grains, and the pound of Amsterdam 7625, according to the table prefixed, state the following equation:

\[ 100 \text{ kilogrammes} = x \]
\[ 1 \text{ kilogramme} = 15446 \text{ grains} \]
\[ 7625 \text{ grains} = 1 \text{ pound} \]

Result: 202.57 pounds.

Reduce 100 pounds of Amsterdam into kilogrammes of France.

100 pounds = x

1 pound = 7625 grains

15446 grains = 1 kilogramme

Result: 64.57 kilogrammes.

**WEIGHT,** (poids, Fr.) Impression, pressure, burden, overwhelming power. The great advantage which heavy cavalry has over the light horse, and particularly over infantry troops, consists wholly in its pressure and overwhelming power.

**WELL.** In the military art, a depth which the miner sinks under ground, with breaches or galleries, running out from it, either to prepare a mine, or to discover and disappoint the enemy's mine. See **SHAFT.**

**WET.** In a sense of good fellowship and hilarity, and of course in a military one, to take a cheerful glass, or, speaking popularly, to **moisten the clay.**

**WET A Commission.** It has always been customary in the army, for every officer, when he obtains a commission, gets the mark and acknowledgement to the corps he joins.

**WERE.** The preterite of I am.

At **you were.** A word of command in the British service which corresponds with the French **remettez vous.** It signifies to return to the same position from which you had faced or wheeled, &c. and is generally used when any motion of the fellock or movement of the body has been done improperly.

**WERST.** A Russian measure of length; seven hundred and fifty geometrical paces.

**WHEEL,** in artillery. A circular body which turns round on its axis. The strength of these wheels is always, or should be, proportional to the weight they carry: the diameters of the wheels of heavy gun-carriages are 8½ inches, and those for light field-pieces 5½ only.

**Wheeling,** in a military sense, to move forward or backward in a circular manner, round some given point. See **PIVOT.** Wheeling is one of the most essential and
Wheels of the squadron. When the entire squadron is to wheel, a caution is given to that purpose, and to which hand.

At the word March, the front rank of the squadron remains dressed to the centre, the leader fixes his eye and makes his circle on the standing flank man, the standard of the division, and the squadron wheels with the same uniform front, at such a pace as is requisite to keep every man of the squadron or line are made on the flanks, except those of ranks by threes, which are as to enter the new direction twenty or thirty yards.

When the bend them inwards, would certainly occasion a crowding on the standing flank, and the English to the pivot hand, by each of those divisions wheeling up of inclining and wheeling, conforming to the pivot movement.

Wheels of divisions. When wheels or changes of direction of bodies in column, are made on a moveable pivot, both flanks are kept in motion; the pivot one always describing part of a circle, and the reverse flank, and intermediate men of the division, by a compound of inclining and wheeling, conforming to the pivot movement.

Wheels made in the pivot hand, and moveable. When the change is made to the pivot hand, (the whole being in motion) the leader of the head division, when at the distance of twenty or thirty yards from the point of intersection of the old and new direction, will give the word, right or left quarter wheel, which is a caution for each man to give a small turn of his horse towards the pivot hand, and the leader himself carefully preserving the rate of march, without the least alteration of pace, will in his own person begin to circle before the line, from the old, so as to enter the new direction twenty or thirty yards from the point of intersection, which he in this case leaves at some distance within his pivot hand. When this is effected (the rest of his division having, during the transition, and on the principle of gradual dressing, conformed to the direction he is giving them) he will give the word Forward! for the division to pursue the right line. The leader of the second, and of every other division, when he arrives on the ground on which the first began to wheel, will in the same manner follow his exact tract, always preserving his proper distance from him.

Wheel made in the reverse flank.
When the change is made to the reverse hand, the pivot leader having arrived as before, at the spot where he gives his word to wheel, will begin in his own person to circle the line from the old, so as to enter the new direction twenty or thirty yards from the point of intersection, which, in this case, he leaves at some small distance without his pivot hand. The rest of his division, having gradually conformed to his movement, he will at the proper instant order forward! and resume a straight line.

During the change to either hand, the whole continue looking to the pivot flank, which never alters the rate of the then march; but the reverse flank is in the one case obliged to slacken, and in the other to quicken its movement.

In this manner, without the constraint of formal wheels, a column, when not confined on its flanks, may be conducted of formal wheels, a column, when not quickened its movement.

order in all kinds of winding and changeable direction. March; but the reverse flank is in the one which never alters the rate of the then hand. The rest of his division, by giving person to circle section, which, in this case, he leaves at

fighand, the pivot leader having arrived as

to the pivot flank, will be again in his own whole continue look into the pivot flank, movement, he will at the proper instant I difficulties than those of infantry, we have, on that account, been more particular; but the subject is handled more amply in the American Military Library. The French do not make use of any word that immediately corresponds with wheel, as a term of command. They say briefly, by platoons, &c. To the right or left into line, march. Par pelons, abrite ou a gauche en bataille, marche. The act of wheeling in general is expressed by quarter or half-quarter wheel.

WHEELINGS. Are different motions made by horse and foot, either to the right or left, or to the right and left about, &c., forward or backward.

WHEELING. The old awkward method of oblique moving and wheeling, is now superseded by half and quarter wheeling.

General rules for wheeling. The circle is divided into four equal parts; whence, wheeling to the right or left, is only a quarter of the circle; wheeling to the right or left about, is one half of the circle.

When you wheel to the right, you are to close to the right, so near as to touch your right hand man, but without pressing him; and to look to the left, in order to bring the rank about even.

When you wheel to the left, you are to close to the left, and look to the right, as above directed. This rule will serve for all wheeling by ranks, as when a battalion is marching by subdivisions with their ranks open, then each rank wheels distinctly by itself, when it comes to the ground on which the ranks before it wheeled, but not before.

In wheeling, the men are to take particular care, neither to open nor close their ranks, and to carry their arms well.

In wheeling, the motion of each man is quicker or slower, according to the distance he is from the right or the left; thus, when you wheel to the right, each man moves quicker than his right-hand man; and, wheeling to the left, each man moves quicker than his left-hand man; the circle that every man wheels being larger, according to the distance he is from the hand he wheels to; as may be seen by describing several circles within one another, at two feet distance from each, which is nearly the space every man is supposed to take up.

WHEEL-CARRIAGE. In artillery, &c. The whole doctrine thereof, as it stands on a mathematical theory, may be reduced to the following particulars, viz.

1. Wheel-carriages meet with less resistance than any other kind of carriage.

2. The larger the wheels, the easier is the draught of the carriage.

3. A carriage, upon four wheels of equal size, is drawn with less force than with two of those wheels, and two of a lesser size.

4. If the load be all on the axle of the larger wheels, it will be drawn with less force than if laid on the axis of the lesser wheels; contrary to the common notion of loading carriages before.

5. Carriages go with much less force on friction-wheels, than in the common way.

WHEELBARROW. A small carriage of burthen, pushed forward by the hands on one wheel; a certain number are always attached to the artillery.

WHINYARD. A sword, so called by Butler in his Hudibras.

WHIPCORD. A tight spun cord, with which the cat-o-nine-tails is made.

WHOLE. All, total, containing all. Take care the whole. A cautionary word which was formerly used in the British service, and is sometimes, but improperly, given now. The term Attention is adopted in its room.

WHOOP. A shout; a loud noise which soldiers make in charging, &c.—It is a natural though a barbarous habit, and has been preserved in civilized armies from a prevailing custom among savages, particularly the wild Indians of America.

WICKET, (wicket, Fr.) A small door in the gate of a fortified place, through which people go in and out, without opening the great gate.

WIDERZOUROUK. A compound word from the German, which signifies back again. The French pronounce it Viderzourouk, It means a movement which is made to the rear, in order to bring a squadron to the right about, in the same
manner that a battalion is faced about.

Marshall Puysegur remarks, that the French adopted this movement from the
Germans, in the year 1670. He is of
opinion, that previous to this epoch,
squadrons were faced to the rear by means
of a double caracoil, describing a half-circle,
the extent of whose front was equal
to half of its diameter; on which account,
the general order of battle in those
days had considerable intervals, and great loss
of time and space of course.

WIG. A Saxon termination of the
name of men, signifying war.
WIGWAM. A hut used in America
by the Indians.
WILDEE, Ind. Guardian; protector.
WILDFIRE. A composition of fire-
work, so called from its ready ignition
and rapid combustion.
WINCH, (Monteville, Fr.) The hand-
le or lever by which a jack, windlass,
&c. is turned.

WINAGE of a gun, mortar, or how-
itzer. The difference between the diame-
ter of the bore, and the diameter of the
shot or shell. In England the diameter
of the shot is supposed to be divided into 20
equal parts, and the diameter of the bore
into 21 of those parts. The French divide
the shot into 26, and the bore into 27.
The Prussians divide the shot into 24,
and the bore into 25. The Dutch nearly
the same as the English. The general
windage of shells in England is 1 of an
inch, let them be large or small, which is
contrary to all reason. It is evident, that
as less windage a shot or shell has, the
farther and truer it will go; and having
less room to bounce from side to side, the
gun will not be spoiled so soon.

It is true that some artillery officers say,
that the windage of a gun should be equal
to the thickness of the ladle; because,
when it has been loaded for a while, the
shot will not come out, without being
kissed thereby, in order to unload it;
and when this cannot be done, it must
be fired away, and so lost. But the most
advantageous windage should be in dividing
the shot into 24 equal parts, and the bore
into 25, on account of the convenient scale
it affords, not only to construct guns
thereby, but also their carriages. Hence
agreeable to this plan, the windage of a
12-pounder will be 15/64 of an inch, con-
sequently a sufficient thickness for a li-
dle; and those of a higher calibre become
still thicker in proportion: but suppose
this thickness is not enough, the loss of a
shot is a mere trifle, in respect to the ad-
tan acquired thereby.

WINAGE. The usual windage of
English guns is 1/20 of the calibre. It
appears by experiments, that 1, or nearly
1, of the weight of the powder is lost by this
windage. See VELOCITY.

WINAGE of Mortars and Howitzers.
From the 12 to 14 inch the windage is
3/16 of an inch, and that of the 24 is
2/16 of an inch.

Windage of French Guns.
Field Guns.—All line of windage about 1.50 in a 6 pounder.
Siege Guns.—All is line; about 1.4 in a 24 lb.
Mortars.—12 inch; 4 lines of windage.
16 inch; 1 line, 5 points do.
18 inch; 1 line.
Howitzers.—All; 2 lines 40.

WIND PUMP. See Air Gun.
WINDLASS, (Windes, Fr.) Is a
roller of wood, square at each end, though
which are either cross holes for hand-
spikes or staves across to turn it round.
by this means it draws a cord, one end of
which is fastened to some weight which itraises up. They are used in tents, and
about Dutch mortars, to help to elevate
them. The French say Windes en Cabi-

ton des bandes, the latter being a sea term.

WINDSAILS, (Manteis a vent, Fr.)
Large pieces of canvas, which are used in
ships at sea for the purposes of ventilation,
&c. During voyages in hot climates, the most beneficent effects are
derived from the use of windlases. The
master of the vessel should be desired to
have them made immediately as soon as
they are embarked, if not already provided,
and they should be constantly hung up.
These sails throw a stream of cooler air be-
tween decks, and it is not an unusual
practice among the men, at least among
the unexperienced soldiers, to keep up the
bottom of them, by which this salutary
purpose is defeated. The sergeant of the
tact must be responsible that this irregularity is never committed.

To WINDWARD, (En ferret, Fr.)—
As St. Domingo is to the windward of Ja-
maica.

WINGS of an army. When drawn up
in battle, are the right and left ranks
counting from the centre; when a bat-

talion is drawn up, the divisions on the
right and left of the centre are called the wings. The word wing is sometimes used to denote the large sides of horn-works, crown-works, tenailles, and other out-works, &c.

**WINTER-Quarters.** See Quarters.

**WITHDRAW-BAND.** A piece of iron laid under a saddle, about three inches above the Withers of the horse, to keep tight the two pieces of wood.

**WITNESSES.** In formation. See

**'Witnesses.** In a military judicial sense, persons summoned by the judge-advocate, or any of his deputies, to attend at a general court-martial, there to speak to the truth which they know of their own knowledge, and to which they can bona fide swear, from having been present at the transaction, &c. See Mansion on Court-Martial.

According to the articles of war, without court-martial all are to be privileged from arrests, and not attending are liable to be attached.

**WOHKELE, Ind.** An ambassador.

**WOLF-tiles.** In the defence of places, are round holes, generally about two or three feet in diameter at the top, one at bottom and half deep, dug in the front of any work. Sometimes a sharp-pointed stake or two are fixed at the bottom, and covered with very thin planks, and green sods; consequently the enemy, on advancing, fall in, and are put into confusion.

**WOOD.** Artillery carriages are generally made of elm, ash, and oak. The head and house of a sea mortars are made of oak, and the bolters of elm. The bottoms of land mortar beds are of oak, and the upper parts of elm.

**Carriages—Ship.** The checks, transoms, and trucks of elm; the axe trees of live oak.

**Carriage—Garrison.** The whole of oak; trucks, iron.

**Field.** Heavy 24 and 12 Pr. the cheeks and transoms of elm; the axe trees of ash or hickory. In the defence of places, are round holes, generally about two or three feet in diameter at the top, one at bottom and half deep, dug in the front of any work. Sometimes a sharp-pointed stake or two are fixed at the bottom, and covered with very thin planks, and green sods; consequently the enemy, on advancing, fall in, and are put into confusion.

**WOODEN.** Bottoms. In laboratory works, are cylindrical pieces of wood, of different lengths and diameters, agreeable to the size of the gun. They are hollowed at one end to receive the shot, and the interior of the wood is fastened to the other end: the whole forming one cartridge, which is put into the piece at one motion. Iron bottomed are to be preferred.

**WOOL.** Packs. Bags of wool. They are frequently used in form of a breast-work, because they resist cannon-shot.

See Siege.

**WORD.** A single part of speech, consisting of one or more syllables, for the purpose of expressing ideas. In a military sense, it signifies signal, token, order, as watch-word, &c.

*The Word.* Is a peculiar word that Watch Word, serves for a token and mark of distinction, given out in the orders of the day in times of peace, but in war every evening in the field, by the general who commands, and in parades by the governor, or other officer commanding in chief, to prevent surprise, and hinder an enemy, or any treacherous person, to pass backwards and forwards. This watch-word is generally called the parole, and to which is added the countersign. The first is known to all officers and non-commissioned officers, the latter only to the sentinels. The officers that go the rounds, or paroles, exchange the word with the officers on duty; nor must the sentinels let any one pass who has not got the countersign.

*Words of command.* (Mot de commande, Fr.) Certain terms which have been adopted for the exercise and movement of military bodies, according to the nature of each particular service. Words of command are classed under two principal heads, and consist of those which are given by the chief or commander of a body, of garrison, or other officer commanding, to prevent surprise, and hinder an enemy, or any treacherous person, to pass backwards and forwards. This watch-word is generally called the parole, and to which is added the countersign. The first is known to all officers and non-commissioned officers, the latter only to the sentinels. The officers that go the rounds, or paroles, exchange the word with the officers on duty; nor must the sentinels let any one pass who has not got the countersign.

*Writs.* Persons that attend the ammunition, boatmen, carpenters, smiths, millers, bakers, waggons, miners, pioneers, &c.

**WORKMEN.** Are persons that attend the ammunition, boatmen, carpenters, smiths, millers, bakers, waggons, miners, pioneers, &c.

When soldiers are employed upon fatigue, or working parties, the drums and fifes, &c. should invariably play to time and measure. According to marshal Saxe, they should be relieved at the expiration of two hours and an half; by which means the individuals are less harassed, and all the troops share alike. With regard to accompanying them in their labor with music, the policy of it is warranted by antiquity. The Lacedaemonians, with a detachment of only three thousand men, under the command of Lycurgus, destroyed the famous Pyramids of Athens in less than six hours. During the whole of the operation, the flutes were playing, to enliven and encourage the troops. This custom existed in France to a late period among the galley-slaves at Marseilles; who, whilst they were employed in removing enormous loads of rubbish, &c. were constantly accompanied by musical instruments and drums.
WORKS. This term is generally understood to comprehend the fortifications about the body of a place; as by outworks are meant those without the first line of defence. The word is also used to signify the approaches of the besiegers, and the several lines, trenches, &c. made round a place, an army, or the like, for its security.

To WORM a Gun, (Dechager un canon et la balle, Fr.) To take out the charge of a firearm by means of a worm.

Warm of a Gun (Tire-bouche, Fr.) An instrument ventriculated or turned round, that serves to extract any thing into which it is intumescent by means of a spiral direction. It is much the same as a whale-tongue, with this difference, that the one is more proper for small-arms, and the other for ordnance.

To WORST, To defeat, to overthrow. WORSTED. Defeated; put to the worst.

WORTHY. A man particularly distinguished, more especially for his valor, as the worthies of antiquity.

WRESTLING. A contest for ascendency of bodily strength; as when two wrestlers attempt to throw each other down. It was in great vogue among the Olympic games.

WRONG. An injury; a designed or known detriment; not right, not justice.

X

XEBEC, (Chibac, Fr.) A sort of armed vessel, with lateen sails, which is used in the Mediterranean.

XENOPHON, A Greek general who has rendered his name immortal by a well-conducted retreat; and is equally celebrated for good military maxims, which are still extant in his Cyropedia.

XERIFF. A prince, or chief ruler in Barbary is so called.

XERXES. A king of Persia, son of Darius, and grandson of Cyrus. This monarch has been rendered notorious in history, by the extravagance of his preparations to invade Greece, and his noble failure; which latter may be attributed to the undisciplined state of his army, and to the presumption of his general Mardonius. He entered the Hellespont with so numerous a fleet, that it covered its surface between the two lands. The number he embarked exceeded 1,000,000 men, who were entirely defeated by 40,000 well-disciplined troops from Greece.

XYSYRARCHA. In antiquity, the master and director of the Xystus.

Xystus. Among the ancients, a long portico, open or covered at the top, where the gladiators exercised their exercises, and met to walk under, so that, in this sense, it might be considered as an open walking place, where the Romans entertained one another.

Y

YACHT, (Yacht, Fr.) This word is taken from the Dutch. It is a small ship with one deck, carrying four, eight, or twelve guns, and thirty or forty men. Yachts, in general, are from 30 to 200 tons; contrived and adorned both within and without, for carrying state passengers. They answer the purposes of business as well as pleasure, being remarkable good sailers.

YAD DASHT, Ind. A memorandum.

YEHOODY, Ind. A Jew.

YEOMAN. The French use this word when they allude to the yeomen of
the guards. In a general acceptation of the word among us, yeoman signifies a free man who has land of his own.

Yeoman of the guard. One belonging to a sort of foot guards, who attend at the British king's palace. The yeomen were uniformly required to be six feet high. They are in number 1000 on constant duty, and 50 off duty. One half wear arquebuses, and the other perruques. Their attendance is confined to the king's person, both at home and abroad. They are clad after the manner of King Henry VIII, and are commonly known by the name of the footmen. The yeomen of the guards were anciently 250 men of the next rank under royalty. This corps was first instituted by King Henry VI, anno 1486.

Yeomanry. The collective body of yeomen. In this class may be considered men of small landed property, independent farmers, &c.

Yeomanry, Ind. A state messenger; a servant of parade, who carries a gold or silver staff; an aide-de-camp.

Younger officer, Ind. An officer who ranks next in order under command. In military service, the junior officer of a troop or company. The word younger is likewise used in the navy. The French say aubriet in naval phraseology.

Z

ZAAT, Ind. Division of people into tribes or sects.

ZAGAIE, Fr. A weapon made in the form of a long dart, which the Moors make use of in battle, and which they shoot with extreme dexterity.

ZAIMS. Principal leaders or chiefs; after whom a mounted militia which they support and pay is called among the Turks.

ZAYM, Ind. A feudal chief, or military tenant.

ZEA. More than common ardor for the good of the service.

ZERK, Ind. A deposition.

ZERNAU, Ind. A term of distinction used to persons of rank or eminence.

ZEEM, Ind. Ground.

ZERMENDARY, Ind. A person who holds a tract of land in his own right.

ZERMENDARY, Ind. The land of a zemendar.

ZENITH, Zenith, Fr. The point or vertex in the heavens directly over one's head. If we conceive a line drawn through the observer and the centre of the earth, which must necessarily be perpendicular to the horizon, it will reach to a point among the fixed stars called the zenzth. The zenith is directly opposite to the nadir, one above our heads, and the other below our feet.

ZERAKET, Ind. Agriculture.

ZERB, Ind. A blow; a stroke.

ZERB SHALAAK, Ind. A blow given with a stick.

ZIG-ZAG, Fr. A term used in mechanics. The working beams or balances which give motion to the several pumps to throw the water up from the river to the hill at Meaux, near Paris, was a sort of zig-zag. ZIG-ZAGS, in fortification, are trenches or paths with several windings, so cut that the besieged are prevented from scaling the besieger in his approaches.

ZIMRA, Ind. A certificate.

ZINDIGEE, Ind. Grain, cattle lands, plantations.

ZINIMUT, Ind. A fief bestowed on military service.

ZULLUM, Ind. Violence; opposition.

ZUROOREAT, Ind. Necessaries.
MILITARY DICTIONARY