

“Lord’s Prayer” and “Twinkle Twinkle Little Star”— Emile Berliner recordings (c. 1890)

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Emile Berliner

With the production of these seemingly unremarkable five-inch diameter flat disc records, the era of mass-produced commercial music began. The history of the disc record started with the German-born Emile Berliner, who immigrated to the United States in 1870. On the heels of his successful invention of a practical microphone in 1877, and the sale of this valuable patent to Alexander Graham Bell, Berliner set out to perfect the recording and reproduction of sound.

When Emile Berliner turned his attention to the field of sound in the early 1880s, things had not progressed much since the initial excitement that met Thomas Edison’s invention of the first primitive recording and reproduction phonograph in 1877. Recordings from this era were made by capturing sound waves as vertical indentations onto a tinfoil sheet, which was wrapped around a spirally-engraved, hand-rotated drum or cylinder. As astounding as the technology was for the time, the machine was severely limited, suffering from a lack of uniform speed and recordings with little fidelity, clarity or, perhaps most importantly, any durability of the fragile tin-foil recording.

With his track record of success, Berliner set to work solving these problems in the tiny lab he had set up in his apartment in Washington, DC. Knowing that his competitors were already staking out considerable territory with a wax-coated cylinder format, he focused his inventive genius on pursuing a format for recording which seemed to have been completely abandoned by others in the field: the flat disc. Berliner’s continued experiments resulted in the creation of a laterally-vibrating groove on a rotating disc along with a device to play the discs; the device he named the gramophone, from the Greek *gramma*, or “letter”, and *phone*, meaning “sound.” Berliner’s gramophone would eventually evolve to incorporate a spring-driven mechanism and, along with its mascot, Nipper the dog, become immortalized in one of the 20th century’s most recognizable and iconic images, the “His Masters Voice” dog and gramophone trademark.

In all probability, Emile Berliner could not have imagined the scope of the revolution that he was ushering in with his system. It would be a number of years before Berliner’s rivals, producing phonographs largely for office dictation, would come to recognize what Berliner already suspected:

the public had an appetite for listening to pre-recorded music and mass production was the key to success. By using flat discs, Berliner would have the ability to create a master negative copy of any recording, from which it was possible to mass produce machine-pressed consumer copies.

By 1889, Berliner's recording, record-making and reproduction technology was well developed enough to begin the process of introducing his innovations to the public. Because an important US patent was still pending, the introduction would have to take place overseas, where he was protected by British and German patents. To accomplish this, a licensing agreement was secured with the firm of Kämmer & Reinhardt, a doll manufacturer in Germany, to manufacture and market a hand-driven gramophone and five-inch disc records, which were produced from either celluloid or hard rubber. These discs, with pre-recorded selections of spoken word or music, had the advantage of being far less fragile than the then contemporary wax cylinders, and were significantly easier and cheaper to mass produce.

These early selections, Number 25, "Lord's Prayer" and Number 26, "Twinkle Twinkle Little Star" (both c. 1890) are of particular historic importance, as it is generally believed that these initial recordings were of Emile Berliner himself, as supported by the clearly audible German accent of the speaker.

Although it would be another decade before Emile Berliner would be able to commence the task of launching his invention in America, it was these nascent discs that gave birth to the dominant format that would bring music to the ears of the world for the next 100 years.

Mark Caruana-Dingli is author of "The Berliner Gramophone: An Illustrated History" and "Emile Berliner and the Kämmer and Reinhardt Gramophone." He is also editor of the "Antique Phonograph News" and has written numerous articles on the early history of recording.

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