

Chapter 2

From the Lab to the Parlor: Inventing an Industry

The industrial processing of music involves creating a number of links between the music makers and the recipients of the music. The most important link in this system is the phonogram. (Wallis and Malm 1987: 3)

Competing interests accelerated the advancement of recording technology during the last dozen years or so of the nineteenth century. The era was marked by an emphasis on hardware and each company's technology; therefore, the companies that were founded during this period fell into one of three categories: equipment manufacturers, selling agents, or patent administrators. The target for the new machines was the world of business, which had been steadily growing since the 1860s. The limited liability corporation came into its own in America after the Civil War, necessitating the modern office and the building to house it (Winston 1998: 51). The 1880s marked the emergence of the skyscraper, "a new type of office building: symbolically a sort of human filing case, with uniform windows, a uniform façade, uniform accommodations, rising floor by floor in competition for light and air" (Mumford 1961: 609). The emergence of hundreds of thousands of business offices hurried the progress made in "business machinery" such as the telephone, the typewriter and the graphophone. Edward Easton, a former Congressional and court stenographer, envisioned a grand future for the graphophone as a dictating machine destined to take its place as a standard piece of office equipment in the

modern American office (Martland 1997: 18). In 1887, he and a group of Washington investors led by businessman Colonel Payne purchased the C. A. Bell-Tainter patents for the graphophone and formed the American Graphophone Company to begin manufacturing the devices (Schicke 1974: 20). Elias Howe's sewing machine company in Bridgeport, Connecticut became the American Graphophone manufacturing plant (Newville 1959: 78). The group had two great advantages: first, they were located in Washington, D.C. and had access to the "immensely fertile market" of thousands of government offices; and second, Edison had not yet released his improved phonograph, so the graphophone had "a considerable head start" (Schicke 1974: 20). Despite these advantages, the device met with great resistance in the marketplace, and stenographers who saw the new contraption as a threat to their profession are believed to have sabotaged its success (Kenney 1999: 24).

When Edison opened the Edison Phonograph Company in 1888 as a manufacturer of his "perfected" phonograph, he set out to dominate the market for leasing the machines to America's big businesses. To defend his business interests, Colonel Payne of American Graphophone prepared to sue Edison for infringing on the patents of the graphophone. On June 28, 1888, the war was averted when an agreement was reached between the Edison Phonograph and the American Graphophone Company for joint sales in the United States (Steffens 1992: 37). Both companies retained manufacturing rights, but merchandising rights were sold to entrepreneur Jesse Lippincott, who, on July 14, formed the North American Phonograph Company (Schicke 1974: 21). For his rights, Edison was to receive \$750,000 payable in installments. Colonel Payne, reluctant to sign

the deal, eventually conceded his rights for a payment of \$200,000 when Lippincott agreed to personally purchase five thousand machines per year from American (Ibid.). Another stipulation was that North American could not do business in the region around the nation's capital previously claimed by American Graphophone. In 1889, Easton and the American Graphophone Company formed the Columbia Phonograph Company, as a selling agent under North American, to represent phonographs and graphophones in Washington, D. C., Maryland and Delaware. The joining of the phonograph and the graphophone under North American meant that Lippincott "was in control of the entire talking machine industry" (Gelatt 1954: 21). Rather than distribute phonographs and graphophones, North American franchised leasing, and later, selling rights to local sales agencies. The North American sales representatives could now offer both machines to prospective clients. The best of the Bell-Tainter and Edison devices were now in direct competition, and each company's continued technological developments became central in a fight that would ultimately be decided by the consumer.

As a way of sharing important information and overseeing relations between companies, the National Association of Phonograph Companies was formed (Read and Welch 1959: 106). In May 1890, the association held its first annual convention in Chicago where sales representatives from across the country met to discuss the state of affairs. At this meeting, two rather startling announcements were made: 1) when the companies added their combined sales and rentals it was found that the Edison model was selling fifty-to-one over the Bell-Tainter model, and 2) the majority of income posted by Louis Glass and the Pacific Phonograph Company was from rentals for entertainment

purposes, not for business use (Steffens 1992: 37). Despite the consumers' preference for Edison's phonograph, equipment rentals and sales for both models were very sluggish; therefore, the prospect of using the phonograph for entertainment purposes was encouraging to the sales representatives. They were willing to try anything to save their businesses, "even if it meant sacrificing their legitimate office machine rental businesses on the tawdry altar of the amusement trade" (Schicke 1974: 27). Following that 1890 meeting, many companies began to convert their phonographs "into exhibition machines" (Steffens 1992: 37; Israel 1998: 292).

The Emergence of a Coin-Slot Industry

In the late 1880s, penny arcades and amusement centers featuring coin operated mechanical games and musical instruments were springing up all over the country (Schicke 1974: 25). Louis Glass, certain that his franchise would fail if it continued to rely on business rentals, was struck with an idea. He equipped one of his electric motor operated Edison phonographs with a nickel-in-the-slot operating device so that it might be used as an entertainment machine (Read and Welch 1959: 106). He invented a mechanism that controlled four listening tubes, each with their own coin slot. Thus, for each playing of the record the machine would take in from five to twenty cents (Ibid.). He patented his invention, and in November 1889 Glass set up one of these devices in the Palais Royal Saloon in San Francisco, where the patrons dropped "nickels in its slots with great enthusiasm" (Schicke 1974: 26). Within a few months, it was clear to him that there was money to be made from coin-slot machines, and he installed pay phonographs in eighteen other locations (Ibid.). In New York, Felix Gottschalk, secretary of the

Metropolitan Phonograph Company, had taken this idea even further. He purchased the patent to Glass's multi-tube coin-slot mechanism and in February 1890 organized the Automatic Phonograph Exhibition Company (Israel 1998: 292). Gottschalk's Exhibition Company had one million dollars in operating capital for the purpose of making the mechanisms and leasing them to others on a profit sharing basis (Read and Welch 1959: 106). In his quest to corner the market on the coin-slot industry, he obtained the cooperation of North American and Thomas Edison, who set his man John Ott to work on developing a standard model for the company (Israel 1998: 292). By the Phonograph Association's convention in May, Gottschalk was prepared to offer contracts to the independent companies through which Automatic would supply the cabinets and mechanisms, and the companies could use their own Edison machines obtained through their contracts with North American (Read and Welch 1959: 107). In order to obtain the right to do direct business with the independent companies, Gottschalk had given North American fifteen thousand shares of Automatic Exhibition stock.

Charles Sumner Tainter, working independently, had also designed a coin-slot machine that he planned to unveil at the 1893 Chicago World's Fair (Read and Welch 1959: 108). He had obtained a concession for the coin-slot machines at the fair and was now in need of recorded music for use with the machines. Fred Gaisberg, a pianist, who had been working for Tainter doing menial work such as making the paper cylinders, and coating them with wax, accepted the responsibility of organizing the talent:

To earn my \$10 a week, I had to find the artists, load each of the twenty units with paper cylinders, set the recording horns, and play the accompaniments. Our entire repertoire consisted of "Daisy Bell" and "After The Ball Was Over" and sometimes we

would perform the latter seventy times a day. (Gaisberg, quoted in Moore 1999: 10)

When the fair opened in May, Tainter had an impressive collection of coin operated phonographs and ample cylinders to satisfy the curious public. Unfortunately, Tainter did not fare so well at the fair. As Gaisberg remembered, “His slot-controlled phonograph... proved too delicate to stand the rough handling at the Chicago Fair Grounds. It was withdrawn and shipped to Washington” (Read and Welch 1959: 108). Gaisberg was then given the task of placing, and servicing, the phonographs in “local saloons, restaurants and beer gardens” around the nation’s capital (Moore 1999: 10). Unsatisfied with his life as a Tainter’s coin jockey, Gaisberg returned to Columbia seeking work. He had worked for the company during the summer of 1889 playing piano as the accompanist on many of the recordings made during those months (Moore 1999: 4). After the experience gained with Tainter, Gaisberg could now offer Calvin Child, the director of Columbia, his services as “pianist and talent scout” (Moore 1999: 10). Child saw a two for one bargain in the resourceful Gaisberg and hired him back. Columbia had begun to make records on a large scale (Read and Welch 1959: 108), and Gaisberg became the accompanist for some of the company’s top talent. In 1893, Columbia opened a phonograph parlor on the ground floor of its office building in Washington that featured “fifty, sixty, or even as many as one hundred” slot machines (Kenney 1999: 26). The same year Columbia took control of the American Graphophone Company, and by 1895, the two were consolidated into one. In the merger, the American Graphophone focused on development and manufacturing, while Columbia handled distribution, marketing and sales.

As in business applications, because the phonographs were sturdier and more reliable than the Victor machines, they became the standard in penny arcades and record parlor (Sanjek 1988a: 388). The hardware business for Columbia was in continual decline. Adding insult to injury, Congress returned hundreds of rented graphophones they felt were “impractical,” and the state of general sales was so poor that it seemed certain Columbia was headed for liquidation (Read and Welch 1959: 108). Through no direct effort of its own, however, Columbia was saved by the “new field of activity which was created...by showmen at fairs and resorts demanding records of songs and instrumental music” (Ibid.). The hundreds of coin-operated phonographs that populated the saloons, amusement parks, ice cream parlors, drugstores, and penny arcades of America drove the new demand for “entertainment cylinders” (Schicke 1974: 27). Columbia had wisely entered the entertainment business the previous year, by producing the “sounds of songs” that might encourage the use of their equipment for home entertainment (Moore 1999: 4). When the demand arose, Columbia was well poised to seize the opportunity and began manufacturing recordings for the coin slot players. Columbia produced the music on a solid wax cylinder compatible with Edison players, and by 1891 offered a catalogue of 200 recordings. It is generally agreed that Columbia Phonograph Company was actually the first in the field of commercial recording (Read and Welch 1959: 107). At the second annual convention of the Phonograph Association that year in New York, only three of the remaining nineteen companies were not in the entertainment business.

After suffering a stroke, Jesse Lippincott died in 1891, leaving North American in the hands of Thomas Edison, the company’s main creditor. He abandoned the policy of

licensing in favor of selling the actual phonographs outright for one hundred fifty dollars (Gelatt 1954: 23). At the third convention of the Phonograph Association (1893) Edison gave the keynote speech that called for the remaining twenty-two companies to persist in selling the phonograph to individuals for use in their homes. The home entertainment potential of the phonograph seemed to be “the only ray of hope left to the North American Phonograph Company” (Schicke 1974: 34). Recognizing this fact, twenty-one of the twenty-two companies accepted Edison’s proposal. Columbia was the lone standout and decided to go it alone. Columbia’s Edward Easton also foresaw the vast potential for home entertainment, but opted not to pursue that potential from within the debt-ridden structure of North American (Schicke 1974: 34-35). Due to the wording of the contract between Colonel Payne and Lippincott, Columbia was able to free itself from the consortium with relative ease (Ibid.). Shortly thereafter, Columbia took full control of American Graphophone and began to exploit the new market of home entertainment. As it turned out, they would have several years head start. Edison remained embroiled in North American’s legal woes and finally decided to throw the company into bankruptcy, reorganize, and begin all over. Since Edison assumed the company’s liabilities he was personally responsible to the remaining creditors who kept him tied up in litigation for two solid years (Ibid.). Finally, in 1896 North American was officially finished. Edison regained control over his patents and opened the National Phonograph Company to manufacture and distribute phonographs for home use. Columbia was now to have a little competition, and not just from Edison alone.

Competition from the Flat Disc

As the cylinder enthusiasts pursued the limits of coin-in-slot parlors and home entertainment, Emile Berliner and Eldridge Johnson had been steadily improving the flat disc format. Despite the improvement in sound, they still had quite a way to go before they could compete with, let alone threaten, the superior position of the cylinder. In 1895 United States Gramophone Company of Philadelphia was incorporated to administer and control the Berliner gramophone patents. Under license from this company, Berliner Gramophone Company in Washington manufactured equipment and discs (Moore 1999: 24-25). Johnson's manufacturing company in New Jersey supplied motors to, and caught the work overflow from, the Berliner Company. The following year Berliner entered a fifteen-year marketing contract with Frank Seaman, a New York advertising executive. In the agreement Seaman received exclusive selling rights for the gramophone in the United States. In return, he would set up the National Gramophone Company of New York to advertise and distribute gramophone merchandise (Gelatt 1954: 56). Seaman hired William Barry Owens as the general manager and by November, the National Gramophone Company was marketing a twenty-five dollar gramophone that "outdistanced the competition," which at the time were offering their cheapest spring-driven cylinder models at twice this price (Gelatt 1956: 57). As Johnson continued to advance the gramophone, sales continued to rise for Seaman and company, driving their demand for more improvements and better recordings. To satisfy the rising demand, in early 1897, Berliner established the first gramophone recording studio over a shoe shop on Twelfth Street in Philadelphia (Moore 1999: 32). Berliner hired none other than Fred

Gaisberg to take charge of the new studio. Alfred Clarke, formerly of North American Phonograph, was to manage The Berliner Gramophone Company's retail store. When Seaman persuaded Berliner to open a second recording studio in New York to better serve the growing demand, he sent Calvin Child, Gaisberg's former boss at Columbia, to establish the studio and run its affairs (Moore 1999: 34). Seaman's imaginative advertising campaigns had transformed the gramophone into a million dollar business. The growth of the flat disc industry was alarming to the proprietors of the cylinder, who were unwilling to stand idly by. On behalf of Columbia, attorney Philip Mauro burrowed through the Berliner patents on the gramophone looking for some transgression of Columbia's rights. Referring to the original graphophone patents, Mauro found a provision that covered the "floating stylus" as one of Bell and Tainter's main improvements to the Edison phonograph. As Mauro examined the gramophone, he observed "how the soundbox was propelled by the grooves of the record" and it suddenly occurred to him "that the gramophone's stylus could be said to 'float' also" (Gelatt 1956: 62). He reasoned that if this could be proven, then the gramophone certainly infringed upon the original graphophone patent, now owned by Columbia. Mauro brought the case to court, but surprisingly he did not attack the United States Gramophone Company (the patent holder), or The Berliner Gramophone Company (the manufacturer) – he attacked the National Gramophone Company and Frank Seaman personally. On October 22, 1898, Mauro entered a suit in the United States Circuit Court for the Southern District of New York, demanding the cessation of talking machine sales by the defendant. Seaman filed an appeal immediately and by January the following year, the Court of Appeals delayed

the original injunction until the entire case could be heard in greater detail (Gelatt 1956: 64). Seaman returned to business as usual, ignoring a full-scale legal battle that impended. Seaman had built his gramophone business into a thriving million-dollar industry in only three years; however, he was entirely dependent upon Berliner for his supply source at prices he felt were inflated. He reasoned that if the courts disallowed the basic validity of Berliner's patents, he would no longer have to deal with the Berliner Company (Ibid.). In March 1899, Seaman began to bite the hand that had fed him. He transformed the National Gramophone Company of New York into the National Gramophone Corporation of Yonkers, including a subsidiary, the Universal Talking Machine Company. Universal then set up a factory in New York for the manufacture of gramophones. Throughout the summer Seaman continued to market Berliner's gramophone and for all eyes it was business as usual. Then, suddenly, in October, all orders from Seaman to the Berliner Company ceased, bringing the company to an "unwelcomed halt" (Ibid.). Seaman then began to advertise and market a new machine, which he called the zonophone, a direct imitation of the gramophone. To protect "his" invention, Seaman eventually persuaded the courts to issue an injunction effective June 25, 1900 preventing Berliner from dealings in gramophone merchandise (Gelatt 1956: 62-65). Naturally, the Berliner Group fought back and all the legal haggling brought the flourishing disc market to a grinding halt (Schicke 1974: 54). A lasting result of this legal battle was that the word gramophone, which had become the subject of a bitter legal controversy, disappeared from the recording industry's vocabulary and "was never again used as a record player trademark in the United States" (Ibid.). The fallout from these

hostilities fell most harshly upon Eldridge Johnson, who found himself stuck with an enormous inventory and nervous creditors. He also had in his possession “new wax masters of recent Berliner releases that he had been making secretly and knew to be superior to the originals” (Sanjek 1888a: 387). Since he was not personally involved in the case against Berliner he established The Consolidated Talking Machine Company in the autumn of 1900 to sell his Improved Gramophones (from \$3.00 to \$25.00), and his Improved Gramophone records (Ibid.).

Internationalizing the Recording Industry

Long before the problems with Seaman arose, Berliner had sent William Barry Owens to London to establish a British market for gramophone goods and to locate venture capitalists interested in a new enterprise (Martland 1997: 36). He established The Gramophone Company in 1897, which purchased gramophones from Eldridge Johnson’s factory, and records from The Berliner Gramophone Company via its marketing agent The National Gramophone Company. Owens recruited an experienced businessman, Theodore Birnbaum, who toured England during the summer demonstrating the gramophone, establishing dealerships and selling records (Martland 1997: 37). The following year Owens met a wealthy British solicitor named Trevor Williams, who displayed great interest in the gramophone business. After a brief meeting with Berliner, Johnson and Seaman in the United States, it was agreed that Williams would become Owens’s partner in The Gramophone Company (Ibid). Upon their return to London, Williams, Edgar Storey, a Lancashire businessman, and Owens formed an informal

partnership in which Williams and Storey supplied the bank guarantees necessary to expand the business, while Owens managed operations. The London Company grew so rapidly that demand often outpaced supply. In July 1898, Berliner sacrificed to Europe two key figures in his American business. His nephew Joseph Sanders, an expert in making matrices and pressing records, was dispatched to Hanover to establish a pressing plant, and Fred Gaisberg, his recording engineer and talent scout, to London to organize a recording studio. In Hanover, Berliner's brother Joseph, the proprietor of Telephon-Fabrik, a telephone manufacturing business, agreed to build a pressing plant (Gelatt 1956: 73). To protect their investment the Berliner brothers formed Deutsche Grammophon Company in 1898. In London, Gaisberg busily gathered chemicals and supplies for the studio he was setting up at 31 Maiden Lane, a "grimy" basement room of a hotel:

Yes, grimy was the word for it. The smoking room of the old Coburn Hotel was our improvised studio. There stood the recording machine on a high stand; from this projected a long, thin trumpet into which the artist sang. Close by, on a movable platform, was an upright piano. (Gaisberg, quoted in Moore 1999: 39).

By August, with most of the immediate preparations completed, the humble room was transformed and ready to receive its first recording artist. On August 8, 1898, the first British gramophone recordings began (Moore 1999: 39-44). Gaisberg had begun shipping masters to Hanover even before the plant had been fully constructed. Four of the expected fourteen presses had arrived from Camden, and Sanders set them up under a large tent and began pressing shellac discs alfresco from the zinc masters that Gaisberg had sent from London (Gelatt 1956: 74). For the next few months, all of the European

gramophone records were manufactured in Sanders's improvised factory. The set up, though less than ideal, was efficient enough to get the final pressings to London within four to six weeks of receiving the masters (Moore 1999: 43). In the meantime, the legal battle that had erupted in October 1898 in the U.S., between Columbia and Seaman, and subsequently Berliner, had begun to affect the London affiliate. In an attempt to take over the British gramophone trade, Seaman cut record supplies to London, hoping to kill off The Gramophone Company. He then encouraged the Edison Company, which had only recently begun to market its own British-made cylinder recordings, to sue The Gramophone Company Ltd. for patent infringement (Martland 1997: 38). Eldridge Johnson, who, selling machines to the London affiliate, had a vested interest in the survival of the firm, clandestinely purchased hundreds of discs that he shipped to London to keep the company afloat. However, he would not have to do so for long. Early in 1899, the Hanover plant was ready for full operation; equipped with fourteen presses and ancillary apparatus, it was the first factory in the world to be devoted solely to the manufacture of gramophone records (Gelatt 1956: 74). In 1899, the partners incorporated the business as The Gramophone Company Ltd. with Williams as Chairman, Owens as Managing Director, and Storey, Birnbaum and Berliner as Directors (Martland 1997: 41). With equipment shipments coming from Johnson in Camden, and records being supplied from Hanover, Owens launched his marketing campaign on London. Sales "billowed mightily" throughout the year, and by mid-December the company was completely sold out of machines and records (Gelatt 1956: 74). Berliner's newly created European

network had effectively side stepped any threat once posed by Seaman's aggressive takeover attempt.

Berliner had not been the first company to exploit the potential European market. In 1888, Thomas Edison had established the Edison Phonograph Company of the British Isles, and Columbia organized the Columbia Graphophone Company of London and Paris in 1889 to exploit the market for the phonograph. In France, the Pathé brothers were building their cylinder-talking machine-business into a major enterprise, with a catalogue of 1,500 selections (Sanjek 1988a: 387). When Berliner opened the Gramophone Company a decade later, his intentions were to exploit the talent of the Continent for recording and marketing in Europe, the United States and other parts of the world. As I mentioned in the last chapter, Berliner was focused on the entertainment potential of recording technology from the very beginning, and in Europe his agenda was no different. The Gramophone Company established the His Master's Voice (HMV) label in 1900, after William Barry Owens saw a painting by English artist Francis Barraud. In the original painting done in 1893, Barraud painted a picture of "Little Nipper," a stray dog his brother had found, staring at the horn of a phonograph with a puzzled expression on his face. Barraud's brother had died and left him the dog. The artists became intrigued by the way the dog stared with confusion into the horn trying to discern from where the voice was coming (Martland 1997: 32). The same year the artist copyrighted the painting. He then tried unsuccessfully for years to sell the painting he named "His Master's Voice." Upon receiving the suggestion to brighten the painting by replacing the black horn with one of brass, Barraud called upon William Barry Owen at the Gramophone

Company on Maiden Lane to borrow one to use as a model. When Owen saw the painting, he commissioned Barraud to replace the phonograph with a gramophone. Owens paid Barraud in two payments of £50: the first gave the Gramophone Company sole reproduction rights, and the second ceded Barraud's copyright on the painting. In 1900, Berliner copyrighted the painting for use as a trademark in the United States and Canada (Ibid.). The following year the trademark was transferred to The Victor Talking Machine Company, which extended the copyright to Central and South America, the Far East and Japan (Ibid.). British Gramophone itself did not use art until 1909, and copyrighted little Nipper as an official trademark the next year (Sanjek 1988a: 389). The image of the dog listening to "his master's voice" appeared on all Victor recordings beginning in 1902, and has endured more than one hundred years as the most recognizable record label logo in the industry. Edison and Columbia followed in step, working to make recordings to compete with the Gramophone Company, but by 1899, Europe began to see that Berliner's gramophone was superior to the cylinder players (Ibid.), and many artists began to accept invitations to record for the Gramophone Company. By 1900, a European catalogue of 5,000 separate selections was available, and with it ample stocks of Berliner gramophones made in Eldridge Johnson's Camden plant (Ibid.).

Back in the United States, Johnson had lost his lawsuit to lift the injunction against his using the name "gramophone" in association with his Improved Gramophone; therefore, he settled on a name of his own, "Victor" (Ibid.). In the summer of 1901, Seaman was decisively beaten in the American courts, freeing Johnson and Berliner to

combine their interests. The Victor Talking Machine Company was incorporated in October 1901 (capitalized at \$2 million), with sixty percent of the stock going to Johnson and forty percent to Berliner. Victor, Edison and Columbia were poised to share the recording industry, when a “young workman, Joe Jones...upset this balance of power when the United States Patent Office issued him, after more than four years, a patent on the basic principle of Johnson’s secret wax-master process” (Ibid.). Johnson did not patent the process for fear that doing so would reveal the secret to his competitors. Jones sold the patent to Columbia, who now began to issue its own recordings on the superior surface. Naturally, another legal battle erupted, only to be resolved in 1903 when Victor and Columbia agreed to pool their disk patents and operate under a cross-licensing arrangement. With Victor, Columbia and Edison holding all the patents, it was impossible for any new record company to enter the market without infringing or paying high license fees. Therefore, in the early years of the twentieth century, three major companies controlled much of the music of the world.

As we have seen in this short overview, the patent was of central importance to the development of the recording industry, with many companies all vying for a piece of the new business. By gathering the most important patents under their corporate umbrella, the “big three,” Victor, Edison and Columbia, were free to exploit the music of the world, until their patents ran out. This chapter has also demonstrated an early business tactic used by Berliner when faced with a court injunction to desist from all business in the United States. He simply moved his operations to Canada, and then to London and Germany. While Frank Seaman thought his lawsuit against Berliner was going to destroy

his business, it placed Berliner and Johnson in a position to become the most dominant recording company of the age.