early years of sewing-machine manufacture was the Singer Company, which overtook them by 1870 and finally absorbed the entire Wheeler & Wilson Manufacturing Company in 1905.

The founder of this most successful 19th-century company was Isaac Singer, a native of Pittstown, New York.<sup>52</sup> Successively a mechanic, an actor, and an inventor, Singer came to Boston in 1850 to promote his invention of a machine for carving printers' wooden type. He exhibited the carving machine in Orson Phelps' shop, where the Blodgett and Lerow machines were being manufactured.

Because the carving machine evoked but little interest, Singer turned his attention to the sewing machine as a device offering considerable opportunity for both improvement and financial reward. Phelps liked Singer's ideas and joined with George Zieber, the publisher who had been backing the carving-machine venture, to support Singer in the work of improving the sewing machine. His improvements in the Blodgett and Lerow machine included a table to hold the cloth horizontally rather than vertically (this had been used by Bachelder and Wilson also), a yielding vertical presser foot to hold the cloth down as the needle was drawn up, and a vertically reciprocating straight needle driven by a rotary, overhanging shaft.

The story of the invention and first trial of the machine was told by Singer in the course of a patent suit sometime later:

I explained to them how the work was to be fed over the table and under the presser-foot, by a wheel, having short pins on its periphery, projecting through a slot in the table, so that the work would be automatically caught, fed and freed from the pins, in place of attaching and detaching the work to and from the baster plate by hand, as was necessary in the Blodgett machine.

Phelps and Zieber were satisfied that it would work. I had no money. Zieber offered forty dollars to build a model machine. Phelps offered his best endeavors to carry out my plan and make the model in his shop; if successful we were to share equally. I worked at it day and night, sleeping but three or four hours a day out of the twenty-four, and eating generally but once a day, as I knew I must make it for the forty dollars or not get it at all.

The machine was completed in eleven days. About nine o'clock in the evening we got the parts together and tried it; it did not sew; the workmen exhausted with almost unremitting work, pronounced it a failure and left me one by one.

Zieber held the lamp, and I continued to try the machine, but anxiety and incessant work had made me nervous and I could not get tight stitches. Sick at heart, about midnight, we started for our hotel. On the way we sat down on a pile of boards, and Zieber mentioned that the loose loops of thread were on the upper side of the cloth. It flashed upon me that we had forgot to adjust the tension on the needle thread. We went back, adjusted the tension, tried the machine, sewed five stitches perfectly and the thread snapped, but that was enough. At three o'clock the next day the machine was finished. I took it to New York and employed Mr. Charles M. Keller to patent it. It was used as a model in the application for the patent.<sup>53</sup>

The first machine was completed about the last of September 1850. The partners considered naming the machine the "Jenny Lind," after the Swedish soprano who was then the toast of America. It was reported 54 to have been advertised under that name when the machine was first placed on the market, but the name was soon changed to "Singer's Perpendicular Action Sewing Machine" or simply the "Singer Sewing Machine"—a name correctly anticipated to achieve a popularity of its own.

According to the contract made by the partners, the hurriedly built first machine was to be sent to the Patent Office with an application in the name of Singer and Phelps. An application was made between the end of September 1850 and March 14, 1851, as Singer refers to it briefly in the application formally filed on April 16, 1851, stating, "My present invention is of improvements on a machine heretofore invented by me and for which an application is now pending." 55

<sup>&</sup>lt;sup>53</sup> CHESTER McNeil, A History of the Sewing Machine in Union Sales Bulletin, vol. 3, Union Special Sewing Machine Co., Chicago, Illinois, pp. 83–85. 1903.

<sup>54</sup> Sewing Machine Times (Aug. 25, 1908), vol. 18, no. 418.

<sup>55</sup> Singer gives this limited description of the first machine, with detailed improvements for which he was then applying for a patent: "In my previous machine, to which reference has been made, the bobbin was carried by the needle-carrier, and hence the motion of the needle had to be equal to the length of thread required to form the loop, which was objectionable, as in many instances this range of motion was unnecessarily long for all other purposes . . . ." Quoted from U.S. patent 8,294 issued to Isaac M. Singer, Aug. 12, 1851. It should be noted that in some instances there was a considerable lapse of time from the date a patent application was made until the patent was issued. In this case the handwritten specifications were dated March 14, 1851, and the formal Patent Office receipt was dated April 16, 1851.

<sup>52</sup> See biographical sketch, pp. 222-223.