

establishments in using the machine, the protests of the tailors effectively blocked him. Of the several stories about Howe's demonstration of the machine and his use of it to stitch clothing, the one most repeated was first published by James Parton in 1867. In this, Howe had a race with five seamstresses in which he stitched five seams faster than each of them completed one. Parton also refers to Howe as sewing "by his machine all the seams of two suits of woolen clothes." Since Howe's machine could only stitch straight, short seams without resetting the basterplate, the latter story could not be true. Parton probably misinterpreted information given by Howe in his 1860 patent extension appeal. Howe reported he had "tested its practical success by sewing with it all the principal seams in two suits of clothes." Whether Parton's stories were true or not, Howe did not receive a single order. It was estimated a large shirt-maker would have to buy thirty or forty such machines and the investment needed was too large.

Howe was not too discouraged. In the meantime, he had finished a second machine for deposit with the patent specifications, as the patent laws then required. The second was a better made machine (fig. 15) and showed several minor changes. As soon as the patent was issued on September 10, 1846, Howe and his partner returned to Cambridge.

Without the inventor's enthusiasm or love of his own invention, George Fisher became thoroughly discouraged. He had boarded Howe and his family for nearly two years, had furnished the money needed to purchase the tools and materials for making the two sewing machines, had met the expense of obtaining the patent and the trip of Howe and himself to Washington; representing in all an outlay of practically \$2000. Since no orders for machines had been received from either garment makers or tailors, Fisher did not see the slightest probability of the machine's becoming profitable and regarded his advances of cash as a dead loss.

Howe moved back to his father's house with a plan to look elsewhere for a chance to introduce the machine. Obtaining a loan from his father, he built another machine and sent it to England by his brother Amasa. After many discouraging attempts to interest the British, Amasa met William Thomas, a manufacturer of umbrellas, corsets, and leather goods. Thomas employed many workmen, all of whom stitched by hand, and he immediately saw the possibilities of a sewing machine. He proposed that Howe sell the machine to him for £250 sterling (about \$1250). Thomas further proposed to engage the inventor to adapt this machine to the making of corsets, at a salary of £3 a week.

When Amasa Howe returned to Cambridge with the news, Elias was reluctant to accept Thomas' offer but had nothing better in sight. So the brothers sailed for

London in February 1847, taking with them Howe's first machine and his patent papers. Thomas later advanced the passage money for Howe's wife and three children so that they could join Howe in England.

At this point, historians disagree on how long Howe was in Thomas' employ and whether he succeeded in adapting the machine to meet Thomas' needs. He was in England long enough, however, to find himself without employment in a strange country, his funds nearly exhausted, and his wife ill. He hoped to profit by the notice that his work had received and began to build another machine. He sent his family home to reduce expenses while he stayed on to finish the machine.

After working on it for three or four months, he was forced to sell it for five pounds and to take a note for that. To collect enough for his passage home, he sold the note for four pounds cash and pawned his precious first machine and his patent papers. He landed in New York in April 1849 with but half a crown in his pocket to show for his labors. A short time after he arrived, he learned that his wife was desperately ill. Only with a loan from his father was he able to reach her side before she died. Friends were found to look after the children, and Elias returned to work as a journeyman machinist.

Howe discovered, much to his surprise, that during his absence in England the sewing machine had become recognized in the United States. Several machines made in Boston had been sold to manufacturers and were in daily operation. Upon investigating them, he felt that they utilized all or part of the invention that he had patented in 1846, and he prepared to secure just compensation for its use. The first thing he did was to regain his first machine and patent papers from the London pawnshop. It was no easy matter for Howe to raise the money, but by summer he had managed. It was sent to London with Anson Burlingame, who redeemed the loans, and by autumn of the same year the precious possessions were back in Howe's hands. Though Howe gained nothing by his English experience, William Thomas by his modest expenditure obtained all rights to the machine for Great Britain. This later proved to be a valuable property.

Howe then began writing letters to those whom he considered patent infringers, requesting them to pay a fee or discontinue the manufacture of sewing machines which incorporated his patented inventions. Some at first were willing to pay the fee, but they were persuaded by the others to stand with them and resist Howe. This action forced Howe to the courts. With his father's aid he began a suit, but soon found that considerably more money than either possessed was necessary for such actions. Howe turned once more to George Fisher, but years of investing money in Howe's machine without any monetary return had cooled him to the