## THE SEWING MACHINE

A sewing machine uses two threads to form a stitch. It has helped families to have better and less costly clothing. In factories it has made the mass production of clothing possible. Elias Howe is considered the inventor of the sewing machine as we know it today. His model was patented in 1846 and was the first practical machine sold. Elias Howe struggled with the problem of how to get the needle to pull the thread through the fabric. Finally, he decided to think about something else for a while. One night, he solved the problem as he was dreaming. Experts who have studied problem solving theorize that even while we may be doing something quite unrelated to the problem, the brain is still working on solutions. Remarkable discoveries have often been made this way.

The first sewing machines were powered by pedals that people moved by moving their feet or hands. Machines made it possible to produce clothing and household goods much more easily. Before machines were invented, everything was hand stitched; this was a very slow process. Most people had only two sets of clothes: one set of best dress and one set for everyday dress. Clothing was made at home until the sewing machine was invented, and then factories began to make clothing.

Clothing can be made in factories very quickly because many copies (layers) are cut at once. The sewing is divided up so that one person sews the same thing on many copies of the article; thus each person does only one job. For example, one person sews only collars and another sews only buttonholes. Another worker will sew in sleeves, while others sew zippers or hems, or sew on buttons. This is called assembly line production. Generally the workers never see the garment once it is complete—they only see the part(s) they sew.

Factory workers use very sophisticated machines developed to do specific tasks in the clothing industry such as sewing on elastic, making buttonholes, or hemming. For example, the machine that makes buttonholes is called the buttonholer; the machine that sews on buttons and makes tacks is called the tacker; and the machine that sews the hem is called a hemmer. Regular lockstitch sewing machines, as well as many types of sergers, are used in clothing production. The factory machines have larger motors than home sewing machines and therefore can go much faster.

Clothes made at home go through the same process as clothes in a factory, but at home a person may have the satisfaction of seeing the fabric transformed into the finished article. Both men and women sew in factories as well as at home for wages or for their own pleasure.

