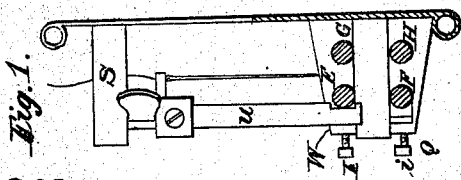
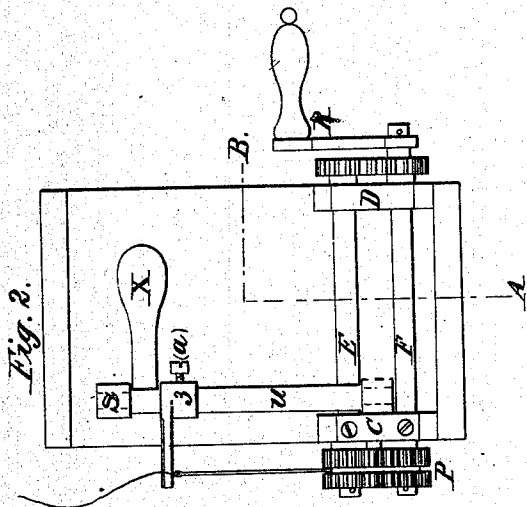
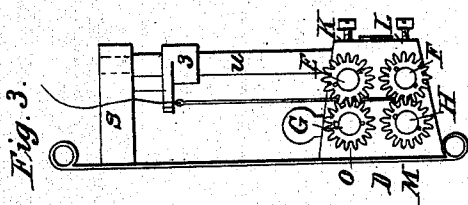


A. PALMER.
SEWING MACHINE.

No. 35,252.

Patented May 13, 1862.



Witnesses:

E. K. Powell
J. W. Leary

Inventor:

Aaron Palmer

UNITED STATES PATENT OFFICE.

AARON PALMER, OF BROCKPORT, NEW YORK.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 35,252, dated May 13, 1862.

To all whom it may concern:

Be it known that I, AARON PALMER, of Brockport, in the county of Monroe, in the State of New York, have invented a new and useful Improvement on the Sewing-Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figures 1 and 3 are side views, and Fig. 2 is a top view. The drawings herewith sent are the exact size which I usually make my working machines.

I construct the main frame of some thin metal, about one-eighth of an inch thick, three and one-fourth inches long, and two inches wide. At one end of this frame I place two standards, C and D. These standards are about one inch wide at the base and about five-eighths of an inch wide at the top, are about one inch high, and nearly a quarter of an inch thick. One of these standards, C, has a side piece attached to it, about one-fourth of an inch square, giving the whole a T shape, as seen near C, Fig. 2. Through these standards I place four shafts, E, F, G, and H. At one end E and F pass through an adjustable box, as may be seen at O, Fig. 1. These boxes are adjusted by the screws *i i*, Fig. 1, and are designed to cause the wheels to mesh deeper or looser, according to the thickness of the cloth to pass through them. On the ends of these shafts I fasten four cog-wheels of about three-eighths of an inch in diameter. These wheels are shown at K, L, M, and O in Fig. 3. L and M mesh into each other and crimp the cloth to be sewed. These I call "crimping-wheels." K and O also mesh into each other, and are only designed to move the cloth along on the needle when in operation. In the center or middle of each of these wheels I turn a small groove, as seen at P, Fig. 2. These grooves are for the needle to lie in, and as the point of the needle only goes into the grooves in L and M, the groove in them is smaller. On the other ends of the shafts H and E, I place another pair of cog-wheels, just large enough to mesh into each other, and on the shaft H, I place the crank R, for propelling the machine. This crank can be of any convenient length and size. At the other end of the frame I place the standard S S S. This standard is

about one-fourth of an inch square and about an inch high. I now place in this standard one end of the shaft U. The other end of the shaft U goes into the T-shaped standard at *e*, Fig. 2. This shaft U passes transversely over E and so close as to require it to be cut partly away, as seen at W, Fig. 1. The object in having these shafts so close together is, that when the shaft U is slightly turned it will press down on E and cause the cog-wheels K and O to mesh closer together and press hard on the needle, thereby holding it firmly while the cloth is pulled off from it. Attached to this transverse shaft U is the lever X, by which is produced its rocking motion. On this shaft also is placed the adjustable needle-holder *z*, Fig. 2. This needle-holder may be of any convenient size and form. The size and shape represented in the drawings answer a good purpose. It is slipped onto the transverse shaft U, and held then by a screw, *a*, Fig. 2. This needle-holder can be moved backward or forward on the transverse shaft U to accommodate different-lengthed needles. This machine can be fastened to a table or stand, or any convenient place, by being screwed permanently thereto, or can be fastened by a common thumb-screw.

To operate my machine I place a common needle, already threaded, in the grooves of the cog-wheels, so that the extreme point of the needle shall come exactly on a line with the centers of the wheels L and M. I then place the needle-holder so that it bears gently against the eye of the needle. I then enter the cloth to be sewed between the wheels L and M and turn the crank. This operation draws the cloth into the wheels, crimps it, and while crimped throws it onto the needle, forming stitches very rapidly. When the needle is as full as it will bear I press gently on the lever X. This moves the needle-holder away from the needle, and at the same time presses the wheels upon the needle and holds it firmly, so that I can pull off the cloth in almost an instant of time, thus very greatly facilitating the work. I now reverse the pressure on the lever X when the needle-holder resumes its place, and I proceed as before.

I do not claim that this machine will sew thick cloth or that it is at all adapted to tailoring purposes; but that for light and thin cloth it is useful. Especially is it useful in "run-

ning up" dress-shirts, "shirring" bonnets, "gathering," and for doing a large portion of ordinary family sewing.

I do not claim the use of crimping-wheels in sewing-machines, the same having been already used in the machines of Benjamin W. Bran, patented March 4, 1843; of James Rodgers, patented July 22, 1844; and of David Smith, patented April 16, 1850.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the crimping-wheels L and M with the adjustable needle-holder z, and transverse shaft U, substantially as herein described and for the purposes herein set forth.

AARON PALMER.

Witnesses:

E. K. POWERS,
J. C. CATY.