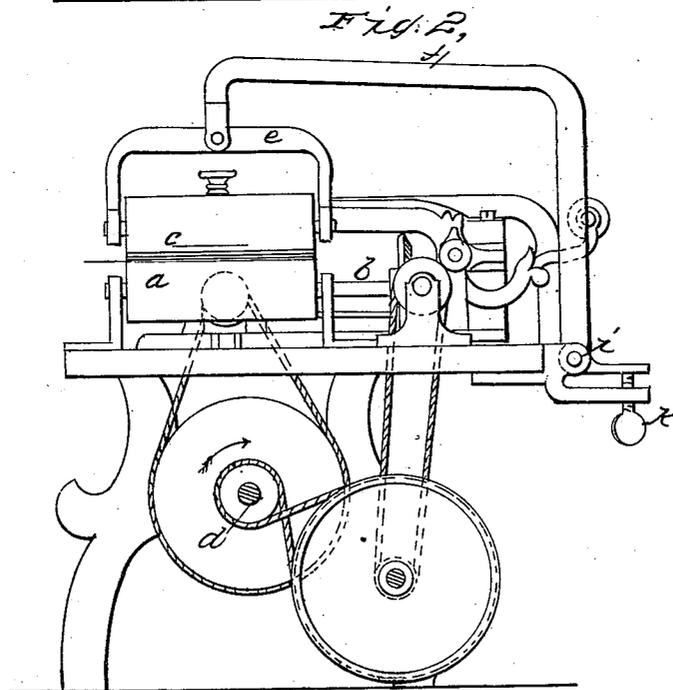
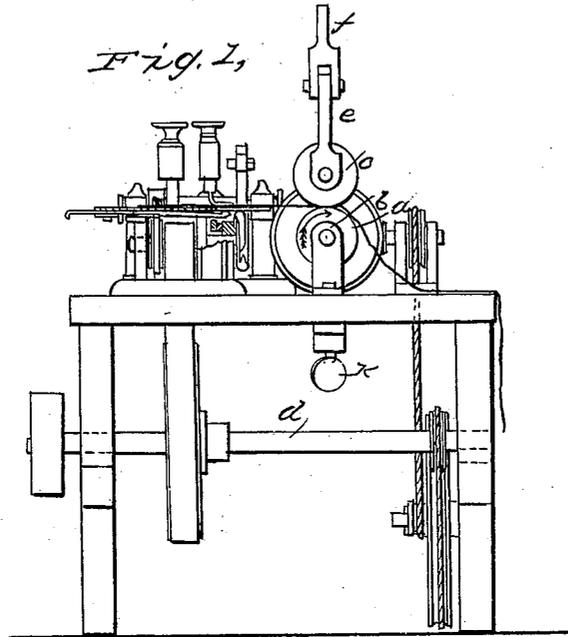


E. ALEXANDER.
Sewing Machine.

No. 16,518.

Patented Feb. 3, 1857.



UNITED STATES PATENT OFFICE.

ELISA ALEXANDER, OF NEW YORK, N. Y.

IMPROVED ATTACHMENT TO SEWING-MACHINES.

Specification forming part of Letters Patent No. 16,518, dated February 3, 1857.

To all whom it may concern:

Be it known that I, ELISA ALEXANDER, of New York, county of New York, and State of New York, have invented certain new and useful Improvements in the Method of Working Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawings, making a part of this specification, in which—

Figure I is a front view or elevation of a sewing-machine having my improvement attached. Fig. II is a side view; and similar letters indicate similar parts throughout.

My invention consists in combining with a sewing-machine of ordinary construction and operation an apparatus which shall, when sewing straight seams, take off the work as fast as finished, practically in the same manner as it is now taken off or guided away by the hand of the operators, and whereby when the machines are driven by power one operative is enabled to attend several machines instead of being, as heretofore, confined to a single machine.

In the ordinary working of a sewing-machine the feed-motion is sufficient to move the cloth along and deliver it off the plate or tablet on which it is sewed; but this of itself does not confine the cloth so that it will be sewed in a straight line, and therefore even in such sewing an operative must take the end of the work as it comes from the feed and draw it out in a straight line to secure a straight seam, or must otherwise guide it to produce that work. This requires his constant attention as is well known to the operations of the single machine. By my improvement he is enabled after starting the work to put it in train to be so continued to the end of the cloth without further attention on his part.

I will describe the construction of my improvement as combined with a sewing-machine of the kind commonly known as "Wheeler & Wilson's." An end view of one of these is shown in Fig. I, having its own perfect feeding parts, as usual in that machine. At one side of this, being that on which the

sewed work is delivered, I place a cylindrical roller, *a*, which is so mounted that its upper line will be about in the plane of the surface of the plate of the machine. This roller is affixed upon a shaft, *v*, which is connected, as clearly shown, by a suitable train of gearing and belts, with the shaft *z*, from which the sewing-machine is driven, the said train being so proportioned that the speed of the periphery of the roller *a* shall be the same as that of the feed. Immediately over this roller a similar one, *c*, is hung on journals in a frame, *e*, and this frame is also secured to an overhanging arm, *f*, rising from the table, to which the machine is affixed. This arm is attached to the table by a hinge-joint, as at *i*, Fig. II, and is here bent at a right angle, under which a set-screw, *k*, is placed, in the manner shown, and by which the upper roller can be made to press upon the lower one with any desired degree of force. The connection of the frame *e* with the arm *f* being by a single pin, as shown, the roller *c* will always adjust itself to a contact throughout its length with the roller *a* or with the cloth between.

The operation will be as follows: A number of the machines being placed in line and driven by steam or other suitable power, the work is to be commenced by the operative on one of them, and a few inches sewed in the usual manner, or until enough has been delivered to extend to the line of contact of the rollers *a* and *c*. He then places the end between these, the necessary pressure being given by the set-screw *k* to insure the pinch requisite to carry off the work, which will now be drawn away from the needle in a perfectly straight line, and hence an inexperienced hand may by this improvement produce better work than a practiced one in the ordinary method, even when using the guides sometimes employed to assist in keeping the work in line. One machine being thus set to work, another may be started, and so on until from the length of the seam the first again requires attention. On comparatively short lines of stitching—such as short bosoms, &c.—a single operative is en-

abled to attend as many as four machines, and a still greater number when the seams or lines are of greater length.

I claim as of my invention and desire to secure by Letters Patent of the United States—

Combining the mechanism of the guiding and conveying rollers *a* and *c* with the mechanism operating a sewing-machine having an independent feed in such a manner that

the said rollers shall guide automatically the finished work away from the machine in a straight line by revolving in opposite directions with a speed regulated by that of the machine.

ELISA ALEXANDER.

Witnesses:

S. H. MAYNARD,
THOMAS DUCEY.