

W. C. WATSON.
Sewing Machine.

No. 18,000.

Patented Aug. 11, 1857.

Fig. 1.

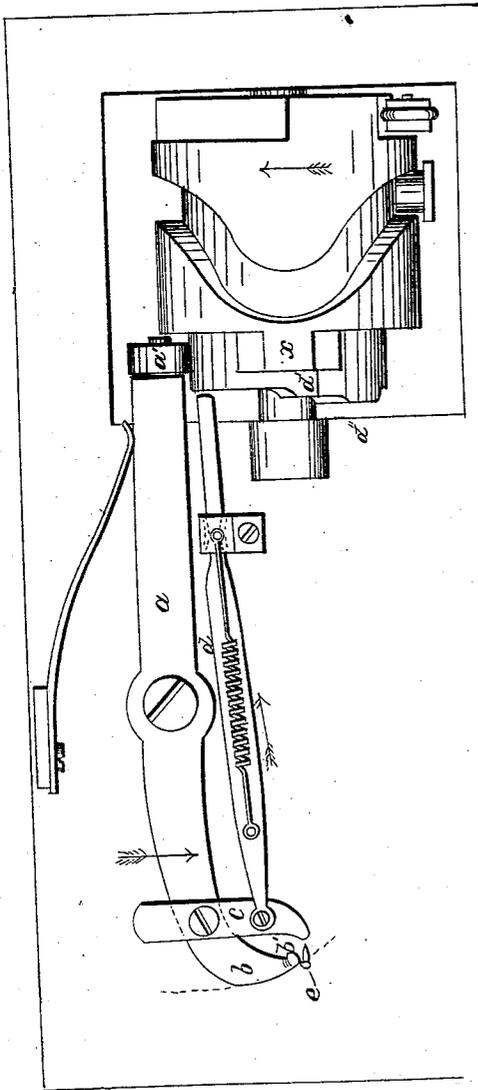


Fig. 3.

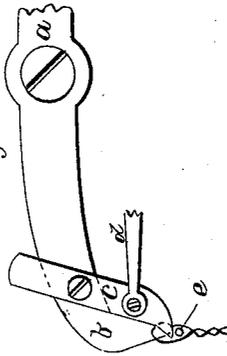
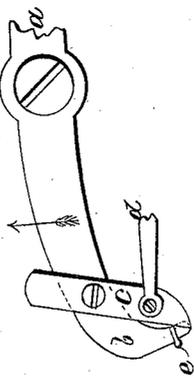


Fig. 2.



UNITED STATES PATENT OFFICE.

W. C. WATSON, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, G. H. WOOSTER, AND I. W. GREGORY, OF SAME PLACE.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 18,000, dated August 11, 1857.

To all whom it may concern:

Be it known that I, WILLIAM CASWELL WATSON, of New York, county of New York, and State of New York, have invented certain new and useful Improvements in 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, which are fully explained herein; and similar letters indicate similar parts throughout the figures.

My invention consists of an improved looper for single-thread, or what is more commonly known as "chain-stitch" machines. The great defect in these machines has been the want of certainty in seizing the loop and in holding it in proper position for the passage of the needle through it. By my improvement the loop is, in the first instance, caught, as the needle retreats, upon an advancing hook which enters it, and having affixed to the shank of said hook a gripping-finger, which is made immediately to close over the loop, whereby that is held firmly in place during the retreat of the hook to the position it must necessarily have in order that the needle may pass through when that again descends, immediately after which passing the gripping-finger opens and the loop slips off, the stitch being thereby finished, as usual.

At *a*, Figure I, is a vibrating arm, fixed beneath the bed-plate or table of the machine. One end has a roller, *a'*, which receives action from a cam, *x*, on the main shaft. The other end is formed into a hook, *b*, having at or near its point a projection, forming a notch for the thread to lie in, as at *b'*. The end of the hook traverses past the needle so as almost to graze it. Near this hook, on the arm *a*, is pivoted the gripping-finger *c*, the end of which is crooked, as shown. From one end of this a rod, *d*, extends along the bed in a direction parallel to the arm *a*, terminating at and receiving action from a cam placed in combination with the other cams which operate upon other parts of the machine. This finger opens and closes upon the hooked part *b'* to secure

and to let go the loop at the proper times, respectively.

When about to commence, the position of the parts is as shown in Fig. I. The needle is then at its full downward stroke, as seen in the position *e*, being a view looking directly down upon it, the bottom side of the machine being turned up. The needle now beginning to retreat, a loop is formed, and the cam *x*, at the same moment striking the roller *a'*, moves the hook *b* forward, which then enters and takes upon it, at *b'*, the loop, passing on to the position shown in Fig. II, to attain which position of both parts cam *d'* has struck the end of *d* and carried the finger to close over *b'*, as shown. Both now retreat back to the position of *a* in Fig. I, the finger, however, remaining closed, which is effected by a second cam, *d''*, acting on *d*, thus causing it to be held shut in this position also. A feed having been given the needle now descends again, passing through the loop, which by reason of that feed is now held extended, as in Fig. III, at which moment the cam *d''* rides past the end of *d* and allows the recoil-springs to act to withdraw *c* and allow the loop to escape from *b'*, when a new loop may be taken, as before, the other parts of the machine operating, as usual, in sewing-machines of this character, or as more particularly described in the Letters Patent granted to me bearing date the 25th of November, 1856.

What I claim is—

The improved device for seizing the loop and holding and properly presenting it for the passage of the needle, consisting of a vibrating hook, *b*, in combination with a gripper or hold-fast, *c*, so arranged and operated as alternately to close upon the loop after being engaged by the hook to draw back the said loop and to release the same after the passage of the needle through, in the manner described.

In witness whereof I have hereunto subscribed my name.

W. C. WATSON.

In presence of—

J. P. PIRSSON,
S. H. MAYNARD.