

HALSEY & FITZGIBBONS.

Sewing Machine.

No. 57,500.

Patented Aug. 28, 1866.

Fig. 1.

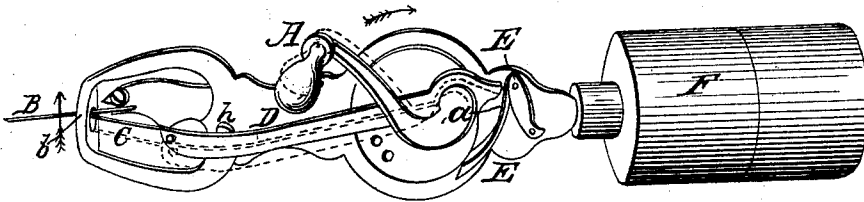
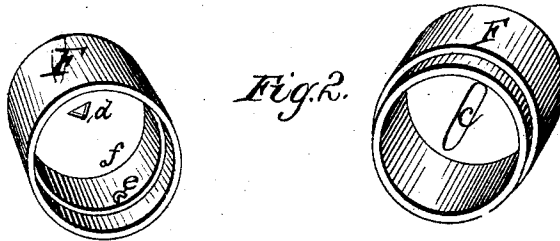


Fig. 2.



Witnesses.

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WILLIAM H. HALSEY, OF HOBOKEN, NEW JERSEY, AND MAURICE FITZ-GIBBONS, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 57,500, dated August 28, 1866.

To all whom it may concern:

Be it known that we, WILLIAM H. HALSEY, of Hoboken, State of New Jersey, and MAURICE FITZGIBBONS, of the city and State of New York, have invented certain new and useful Improvements in Sewing-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, and of their mode or manner of operation, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and making a part of this specification.

Our invention consists in improvements upon the sewing-machine for which Letters Patent of the United States were granted to Henry Hudson, bearing date November 1, 1859.

Our invention has reference to an improved device and arrangement for producing and regulating the feed of such machine, and also in an improved method for supporting and carrying the spool of thread used by the machine.

Figure 1 is a view of such machine with our improvements attached thereto. Fig. 2 is a representation of the handle of the machine, which is also made the spool-holder.

This machine uses but one thread, and is operated by the crank A, turning in the direction indicated by the arrow, and makes what is known as the "chain" or "tambour" stitch. The feed of the machine is in the direction of the arrow 1; but as the cloth or fabric being sewed is intended to be fixed upon a frame, and is held fast, the machine moves and traverses over the surface of the cloth in a direction the opposite to that indicated by such arrow. The thread passes through a tension device on the side of the machine opposite that represented in the drawings, and through the eye in the needle B.

The feed is effected by the looper or sharp-pointed eyeless needle C. As this looper leaves the cloth it and the arm D, to which it is fixed and which gives motion to it, are in the position shown in Fig. 1 by the black lines, and the end *a* of such arm is then carried or moved almost against or in contact with the spring E. The further movement of the crank A brings the end *a* of the arm against the

spring E, which acts as a fulcrum to carry the upper end of the arm D to the position shown by red lines, and also moves the point of the looper C to the opposite side of the slot *b*, in which position it is held by the end *a* against the spring E until such end of the arm has passed beyond the spring, or until the needle has been carried out again through the slot and through the fabric being sewed, when the arm D is carried back to the position indicated by the black lines and the feed effected.

The looper C is prevented from feeding, except at the proper time, by means of a cam-projection on the inner face of the arm D, the position of which projection is indicated by the dotted lines in Fig. 1, which passes in front of the pin *h* on the frame or plate H as such arm D is drawn back, and which prevents any lateral movement of such arm and the looper until such cam-projection has passed beyond or freed itself from the action of such pin *h*, which takes place just before the time when the end *a* of the arm D strikes against the spring E. The spring E should be stiff enough to secure such action to the needle C, but not rigid enough to interfere with the easy operation of the machine.

In the original machine of Hudson the spool was supported on the spindle passing through the cam that worked the needles, and between such cam and the handle of the machine.

We make the handle F of the machine in two parts, as represented in Fig. 2, and in such handle make a recess or cavity sufficiently large to receive any ordinary-sized spool of thread. The parts of the handle shut upon each other, after the manner of a box and its cover, as represented, and the whole is formed with a smooth outside surface, as shown in Fig. 1.

The spool is held in position, so as to revolve easily and properly deliver the thread, by a pin or stem, *c*, extending inward from the center of the outer end of the handle, and which passes into one end of the spool, the other end of the spool passing over the end *d* of the shank of the machine, which is made to extend into the cavity in the handle for such purpose. The thread from the spool is passed through a guide, *e*, on one side of the spool-

cavity, and then out of the handle through the hole *f*, and then through the tension device and to the needle-eye, as before described.

The handle *F* may be made of any kind of wood, or of hard rubber, horn, papier-maché, or any other suitable material, and may be plain or carved, as desired.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the spring *E* and arm *D* with its cam end *a*, con-

structed and operating substantially as and for the purposes set forth.

2. Forming the handle of the machine so that it will contain and support the spool, substantially as described.

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Witnesses:

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