

I. M. ROSE.

Embroidering Attachment for Sewing Machines.

No. 93,480.

Patented Aug. 10, 1869.

Fig. 1.

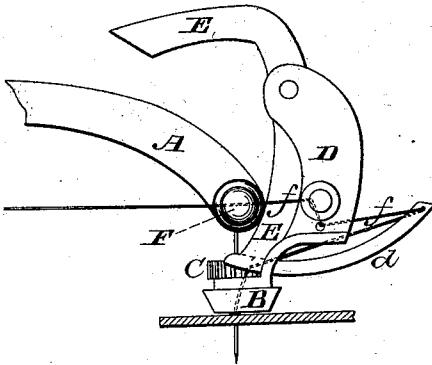


Fig. 3.

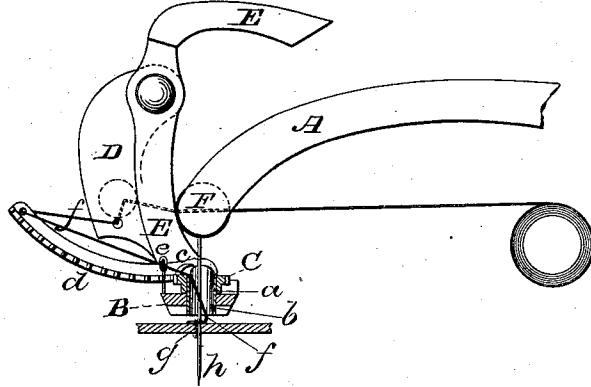


Fig. 4.

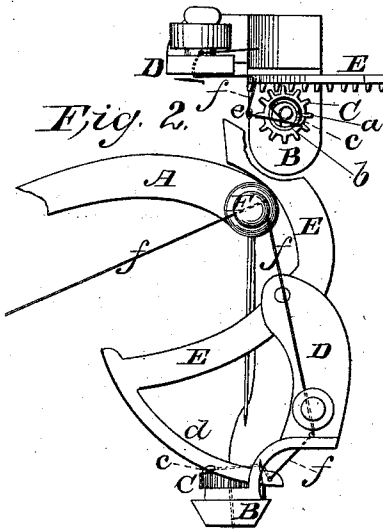


Fig. 5.

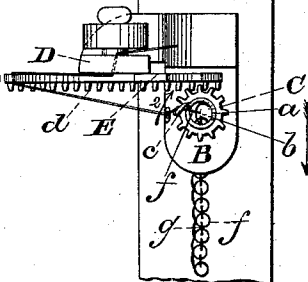
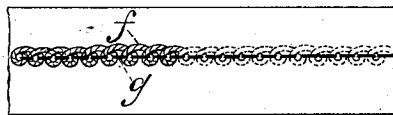


Fig. 6.



Witnesses:

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ISRAEL M. ROSE, OF WEST HAMPTON, NEW YORK.

Letters Patent No. 93,480, dated August 10, 1869.

IMPROVEMENT IN EMBROIDERING-ATTACHMENT FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, ISRAEL M. ROSE, of West Hampton, in the county of Suffolk, and State of New York, have invented a new and improved Embroidering-Attachment to Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 represent side views of my improved embroidering-attachment to sewing-machines.

Figure 3 is a view of the opposite side of the same.

Figures 4 and 5 are plan views of the same, showing the parts in different positions.

Figure 6 is a plan view of a piece of fabric embroidered by means of my improved attachment.

Similar letters of reference indicate corresponding parts.

This invention relates to a new device, which may be attached to any kind of sewing-machine, and which will produce an embroidery-stitch of very fine and ornamental appearance.

The invention consists of a swinging bar, which is operated by the needle-bar of the machine, and which imparts oscillating motion to a ring that carries a hook, by which the embroidery-thread is so placed that it can be fastened to the fabric by the needle-thread in the desired position.

A, in the drawing, represents the needle-arm of a "Wheeler & Wilson," or other suitable sewing-machine.

B is the presser-foot of the same.

This presser-foot is perforated, and has a rim, *a*, around the circular aperture *b*, as shown.

C is an annular pinion or plate, fitted loosely around the ledge *a*, and carrying a hook, *c*, on its upper face, as shown.

On one side of the aperture *b* the ledge *a* projects above the pinion.

The vertical arm D of the presser-foot is attached to the stationary part of the sewing-machine, in any suitable manner.

To it is pivoted, by a pin, *e*, an L-shaped plate, E, which carries, at its lower end, a toothed or other segment, *d*, while its upper arm is in a horizontal position, as shown.

The plate E is pivoted near its centre, and its arms are so placed that they will be in the way of the thread-guide F, or any other projection of the needle-arm, during the up-and-down motion of the same.

The plate E will thus receive vibrating motion, being swung up during the upward stroke, and down during the downward stroke of the needle-arm. By this vibrating motion of the plate E and segment *d*, oscillating motion is imparted to the pinion C.

The embroidering-thread *f* is passed from a suitable bobbin through the thread-guide F, through the vertical arm of the presser-foot, through the front end of the segment *d*, through a guide, *e*, secured to the presser-foot, and through the aperture *b* to the fabric, which is fed in the direction of the arrow 1, fig. 5, in the usual or suitable manner.

The operation is as follows:

When the end of the embroidering-thread has been fastened to the fabric, and when the needle is fitted through the fabric, the parts are all in the position shown in figs. 1, 3, and 5, that is to say, the hook *c* is in front of the aperture *b*.

The needle-thread *g* projects from the fabric through the aperture *b*, and on the right-hand side of the thread *f*.

As the needle-arm swings up, the pinion is turned, so that the hook *c* travels in the direction of the arrow 2. The hook will thereby be caused to carry the thread *f* around the projecting part of the ledge *a*, so that it will lie as indicated in fig. 4, that is to say, it will form a loop, of which one straight side passes diametrically across the upper end of the rim *a*, while its round part will, in a semicircular form, fit around half the rim *a*, the inner end being fastened to the fabric.

During the next downward stroke of the needle, the thread *g* will be carried down through said loop, over the straight diametrical part of the same, and will thereby take the loop off the rim *a*, and fasten it upon the fabric, so as to leave one part of it still free.

Fig. 6 clearly represents the form of loops and arrangement of threads.

Each stitch of the needle-thread connects two loops of the embroidering-thread, and the needle-thread itself is or may be fastened under the fabric by means of a straight shuttle-thread, *h*, shown in fig. 3.

I claim as new, and desire to secure by Letters Patent—

1. The embroidery-attachment to sewing-machines, when composed of the vibrating arm E, oscillating pinion C, hook *c*, and rim *a*, all arranged in connection with the presser-foot, or its equivalent, substantially as described, and operating as set forth.

2. The combination of the swinging plate E with the reciprocating needle-carrier, the former being arranged with reference to the latter, and being operated thereby, substantially in the manner specified, to vibrate, directly or indirectly, an annular ring, pinion, or hub, provided with a hook thereon, as set forth.

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Witnesses:

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