

I. M. ROSE.

EMBROIDERING ATTACHMENT FOR SEWING MACHINES.

No. 65,768

Patented June 11, 1867.

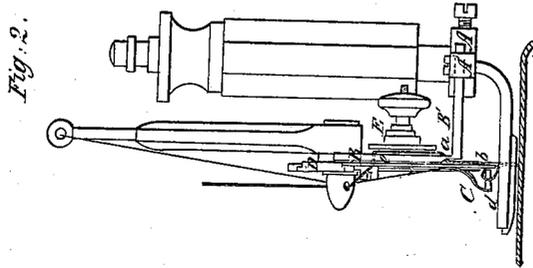


Fig. 2.

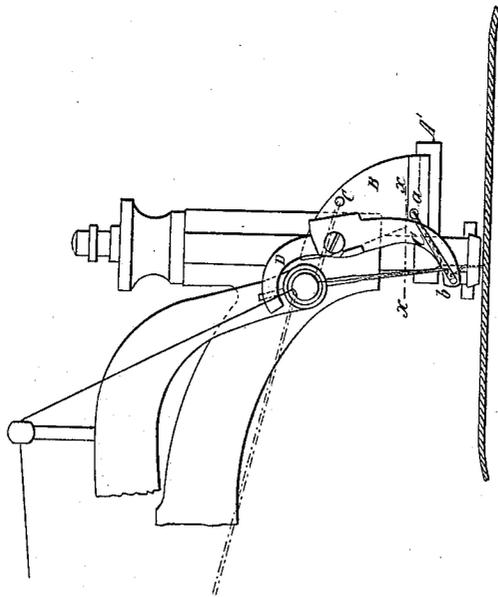


Fig. 1.

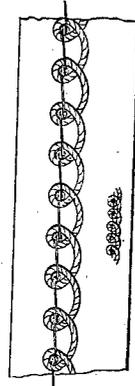


Fig. 4.



Fig. 3.

Witnesses.

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ISRAEL M. ROSE, OF NEW YORK, N. Y., ASSIGNOR TO THE SEWING MACHINE
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Letters Patent No. 65,768, dated June 11, 1867.

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 the city, county, and State of New York, have invented a new and improved Embroidering Attachment for Sewing Machines; and I do hereby declare that the following is a full and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation thereof, representing my improvement attached to the presser-foot of a sewing machine, the presser-foot and a portion of the presser-bar or standard being shown in outline for the purpose of illustrating the mode of using said improvement.

Figure 2 is a rear elevation of my improvement.

Figure 3 is a horizontal section of the lower part of my improvements, taken on the plane of the line *xx*, fig. 1.

Figure 4 represents an embroidery stitch made by my improved embroidering attachment.

This invention consists in an apparatus which is to be attached to a sewing machine for the purpose of embroidering and beautifying cloth or other fabrics and materials with the aid of twist or cord, or an additional upper thread, the same being laid upon the cloth in ornamental lines and fastened on the surface of the material by means of the ordinary needle-thread, with or without a shuttle or locking-thread.

The letter A designates the clamping part of the apparatus or attachment. This part A is so formed as to embrace or partly embrace the lower end of the presser-bar of a sewing machine to which it is clamped by means of a set-screw or other convenient device, at a sufficient height above the presser-foot to allow the vibrating bar, hereinafter mentioned, to swing clear of the fabric and of said presser-foot. The apparatus may be attached to any other suitable portion of the machine. The clamp A is extended, as shown at A, to form a proper support for the frame B which carries the operating parts of my improvement, the lower part of said frame having an arm, B', which extends in a horizontal direction from its bottom edge, and is secured to the extension A' of the clamp by a set-screw which goes through a slot in said arm to allow the frame to be adjusted to different positions. The frame B is an upright plate, and near its top is pivoted a vibrating arm, D, which carries the embroidery thread or cord. The pivot of the vibrating arm D is to the left of the line in which the perforating needle of the machine moves, and its upper and lower ends are each curved in the direction of the path of the needle, the upper curved end reaching over the front end of the needle-arm when the vibrating bar is in its normal position. The said bar D is pivoted at a point near its centre, and is so constructed and arranged that the upward and downward movement of the needle-arm will cause the lower end of the arm to move in and out, the end of the needle-arm on its ascent coming up against its curved upper end and causing the arm to vibrate, and its lower end to advance toward and past the needle and between it and its thread below the eye. When the needle descends, the needle-arm comes against the curved lower end of the arm and turns the arm back to its former position, and thereby causes a loop of its cord to be left in an advanced position or thrown out, as shown in fig. 2, the said loop being held in proper position for the needle to pass through it by a spring, C, attached in an inclined direction to the outside of the lower part of said arm D, the lower end of said spring being free, and having on its inner face a point, *d*, which rests against the forward lower part of the arm. When the needle descends its point enters between the outside of the arm D and inside of the spring C, and enters the loop of twist, as shown in fig. 3. Before the needle has completed its descent, the end of the needle-arm strikes against the curved lower end of the arm and moves it back to its former position, leaving the needle in the loop of embroidery thread or twist, (which loop is completed by this movement,) the spring-point *d* giving away before the needle and allowing the bar and spring to move back and clear themselves of the needle, which, when its own thread is secured by the shuttle-thread or by other means, rises out of the embroidery loop, and the end of the needle-arm comes up against the curved upper end of arm D, and again vibrates it so as to move its lower end toward the needle, as before described, when a fresh loop or bend of the embroidery thread or twist is again brought into position to be secured on the surface of the cloth by the next descent and stitch of the needle. The embroidery thread is taken from its spool to the hole *e* in the upper part of frame B, (being first passed through a guide or hole in the end of the needle-arm, if desired,) through which hole *e* it is passed,

bringing it on the inner side of the frame, where tension is made on it by a tension-spring, E, or some equivalent device, which may be attached to frame B, and after passing such tension device it goes through a hole, a, in the lower forward part of frame B, thence through an eye or hole, b, in the lower part of the vibrating arm D, and thence to the surface of the cloth. The eye or hole b in the arm D is just behind the place where the spring point d bears against the said arm.

By means of this improvement each succeeding upward and downward movement of the needle causes a coil of the embroidery thread or twist to be formed on the surface of the cloth, which coil is then fastened to the cloth by the stitches successively. The embroidery stitch formed by these operations is shown in fig. 4, where, as in the other figures, the embroidery thread or twist is colored red.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the frame B, spring C, and point d, with the vibrating arm or lever D, constructed and arranged substantially as above set forth for laying the embroidery thread or twist in proper position, as described.

2. I claim the spring C, having a spring-point, d, as shown, in combination with the vibrating arm D, substantially as and for the purpose set forth.

I. M. ROSE.

Witnesses:

O. B. A. KELLY,
B. R. PAYNE.