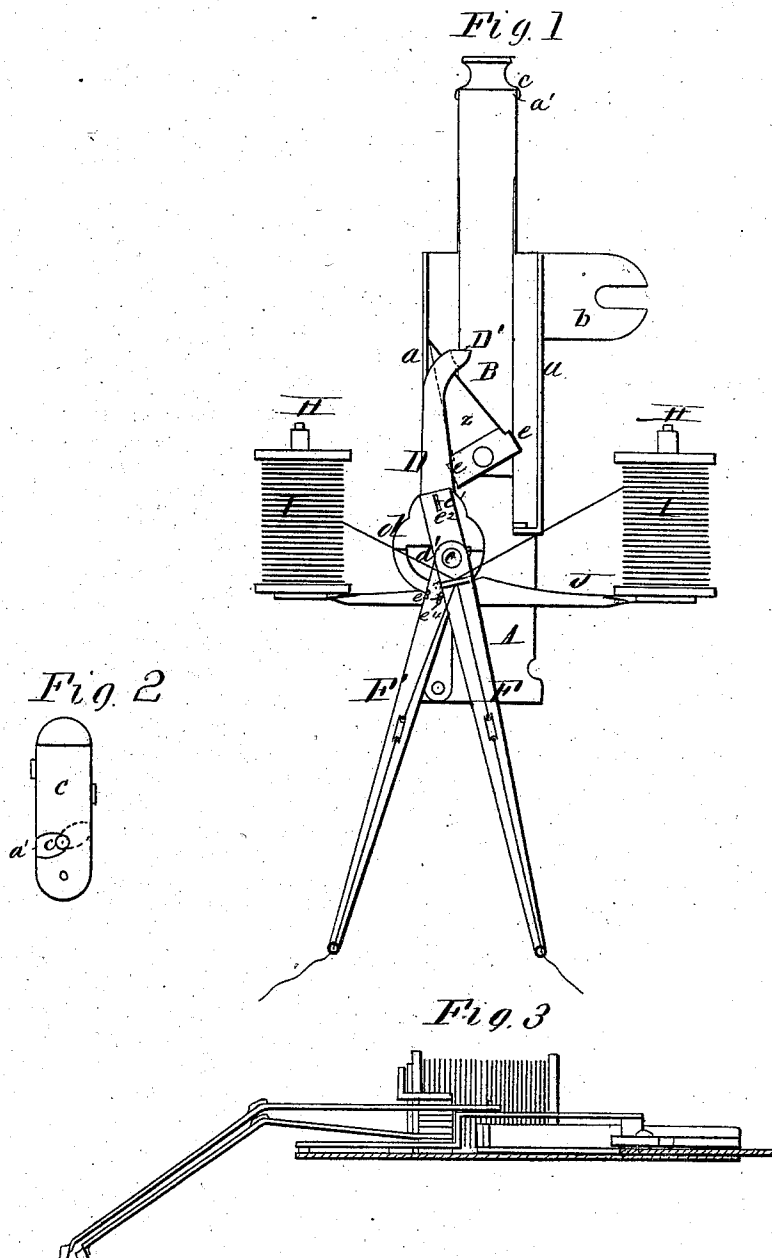


E. STEWART.

Embroidering Attachment for Sewing-Machines.

No. 133,901.

Patented Dec. 10, 1872.



Witnesses
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EDWARD STEWART, OF FORT MADISON, IOWA.

IMPROVEMENT IN EMBROIDERING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 133,901, dated December 10, 1872.

To all whom it may concern:

Be it known that I, EDWARD STEWART, of Fort Madison, in the county of Lee and in the State of Iowa, have invented certain new and useful Improvements in Embroidering Attachment for Sewing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

Figure 1 of the drawing is a representation of a top-plan view of my invention; Fig. 2 is a detail view, and Fig. 3 is a sectional view, of the same.

This invention has relation to embroidering attachments for sewing-machines; and it consists in the construction and novel arrangement of devices for alternating the bent levers, through the eyes of which pass, respectively, the braid and thread, substantially as and for the purpose hereinafter more fully described.

The accompanying drawing shows an embroiderer designed especially for attachment to a Singer sewing-machine, but with proper modification the apparatus may be adapted to other machines.

A, in the drawing, represents a plate having a slotted lug, *b*, which is attached to the face of the Singer sewing-machine, as hereinafter explained. The plate A has flanges, *a*, at the sides, running lengthwise, and about two-thirds the length of said plate. At their lower ends said flanges are bent inwardly, leaving a space of, say, half an inch between their ends. Through the middle of the plate A, for the length of the flanges *a*, runs a groove, in which lies a sliding plate, B, bent to a right angle at its upper end, and there provided with a pivoted catch, *c*, designed to be attached to the needle bar. The catch and arm *a'* are correspondingly notched, as shown at *c*, to enable them to be more easily attached to the stud or screw designed to receive them. The plate B is given a vertical reciprocating movement by the motion of the needle-bar. Pivoted to the lower end of the

plate B is a V-shaped or triangular block, Z, having projecting shoulders *e*. To the lower end, near one side of the plate A, is pivoted a lever, D, having a step-like bend at *d*, with a large central opening, *d'*, through which passes the pivot holding the alternating levers F F'. The lever F is connected to the lever D above the pivotal point *e* by means of a pin, *e'*, passing through a slot, *e''*. The lever F' is attached, below said pivotal point, to the lever D by a similar pin and slot, respectively marked *e'' e'''*.

Every rising movement of the needle-bar causes the lever D to move to one side or another at the opening *d'*. The levers F F', being connected to said lever D near said opening, are consequently alternated to assume the proper positions for the operation of embroidering.

The means whereby said motion is obtained are briefly as follows: The upper end of the lever D is bent over to one side, and holds a beveled stud, D'. Now, as the slide B rises, the point of the triangular block lies against the flange *a* nearest said beveled stud, and thus passes between the stud and the flange, thereby forcing the former toward the middle of the slide, and thus effecting the requisite movement of the lever D to alternate the levers F F'. As soon as the outermost of the shoulders *e* comes in contact with the point or angle of the stud D' the block is swung around on its pivot so as to throw its point toward the opposite flange. The slide then descends with the needle-bar until the base of the block Z, now in an oblique position, enters the space between the two ends of the flanges *a*, where it comes in contact with one of said ends, at a point on the opposite side of a vertical line through its pivot from its point. By this means the point is forced over against the opposite flange from the one against which it lay in the preceding upward movement, and, as the slide ascends, passes between the stud D' and said flange, again forcing said stud over, and thus effecting a reverse alternate movement of the levers F F'. The spools I, from which the levers F F' are fed, are

held on posts H rising from plates on the ends of a transverse-bar, J, secured to the plate A.

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

The lever D having the stud D', and slide B having the pivoted V-shaped shouldered block Z, in combination with the alternating

levers F F' and flanges a, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of September, 1872.

EDWARD STEWART.

Witnesses:

JOE HOLLMAN, Jr.,
D. W. STEWART.