R. B. STANTON.

REVERSIBLE FEED FOR SEWING MACHINES.

No. 67,815 Patented Aug. 13, 1867.

Fig 1

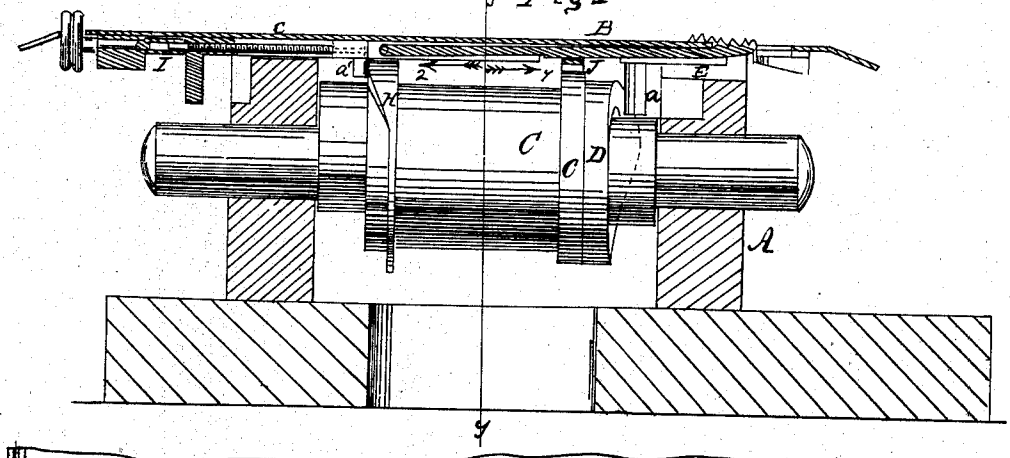


Fig. 2.

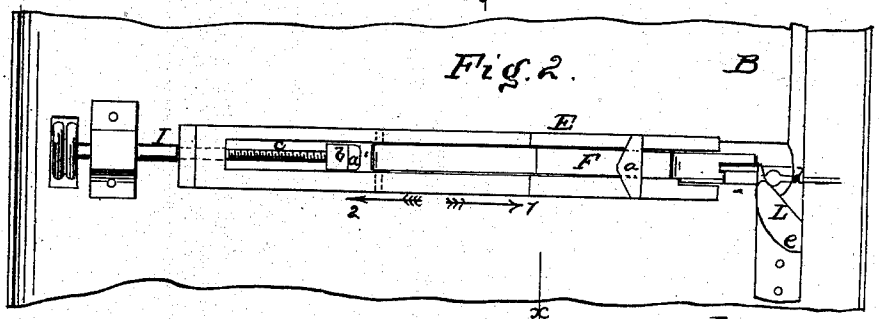
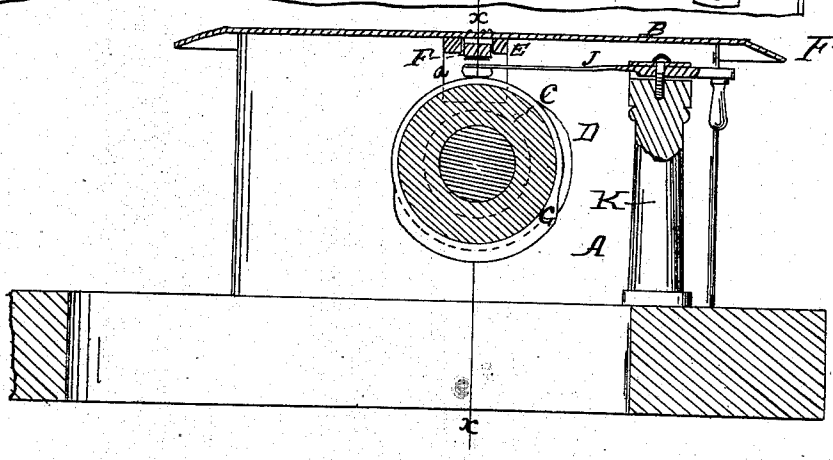


Fig. 3.



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ROBERT B. STANTON, OF OXFORD, OHIO.

Letters Patent No. 67,815, *dated August* 13, 1867.

IMPROVEMENT IN REVERSIBLE FEED 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, ROBERT B. STANTON, of Oxford, in the county of Butler, and State of Ohio, have invented a new and improved Reversible Feed Mechanism for Sewing Machines; and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

This invention relates to a new and improved feed mechanism for sewing machines, so constructed and arranged as to be capable of being reversed and feed the work either to the right or left on the cloth-plate, whereby the removal of the work from the machine, and the turning of it around at the end of each seam or row of stitching, is avoided. In the accompanying sheet of drawings—

Figure 1 is a front sectional view of my invention, taken in the line *x x*, fig. 3.

Figure 2, an inverted plan of the cloth-plate, with a portion of the invention applied to it.

Figure 3, a transverse vertical section of the invention, taken in the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

A represents the portion of the frame of a sewing machine which supports the cloth-plate B, and within this part A of the frame the usual cylinder C is placed, having a double cam, D, at one end, for operating the feed-plate E and the toothed feed-bar F, pivoted within E. These parts are old and well known, and may be seen on the Wheeler and Wilson sewing machine, the periphery of the cam D being the portion which raises the toothed bar F, in contact with the cloth, and the side of D the portion which gives the longitudinal movement to E and F, to feed the cloth along, E and F being thrown back, after F descends from the cloth, by a spring not shown in the drawing.

In addition to the parts above described, and now in common use, I use on the cylinder C two cams G H, one, G, adjoining the cam D, and the other, H, being at the opposite end of the cylinder, as shown clearly in fig. 1. The feed-plate E is provided with two pendants *a a'*, against which the cams D H act respectively, to give the longitudinal movement to plate E, the cam H moving said plate in the direction indicated by arrow 2, and the side of cam D moving it in the direction indicated by arrow 1. The pendant *a* is fixed or immovable, but the pendant *a'* is adjustable, it being attached to a slide, *b*, on the plate E, which is moved by a screw, *c*, the latter having a square on its outer end, which fits in a revolving socket, I, secured to the under side of the cloth-plate B, (see figs. 1 and 2.) By this arrangement the space between the two pendants *a a'* may be increased or diminished at pleasure, for the purpose of varying the length of the stitch as may be required.

J represents an elastic bar, which is pivoted on the upper end of an upright, K, on the base of the frame. This bar may be made to rest either on the cam D or G, as desired, and may be readily shifted from one to the other. This adjustable bar J performs an important feature, as it is the medium through which the toothed bar F is raised by the cams D G. When, for instance, the bar J rests on the cam D, the toothed bar F will be raised and made to engage with the cloth, when the plate E is moved in the direction indicated by arrow 1, and when the bar J rests on the cam G, the toothed bar F will be raised and made to engage with the cloth when the plate E moves in the direction indicated by arrow 2. Thus, by simply shifting the bar J the feed may be reversed.

To the under side of the cloth-plate B there is secured a bevelled hook-shaped plate, L, which is near the slot *d* in the cloth-plate, through which the needle and thread pass. This plate L is designed to hold the thread when the cloth is fed or moved in the direction indicated by arrow 2, the bevelled edge *e* allowing the stitch to draw up into the cloth without friction.

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

1. The two cams G H, in combination with the cam D and the adjustable elastic bar J, all arranged to operate in connection with the feed-plate E and toothed bar F, substantially as and for the purpose specified.

2. The screw *c*, connected with pendant *a'*, in combination with the revolving socket I, as and for the purpose set forth.

3. The bevelled hook-shaped plate L, when used in connection with a reversible feed mechanism, as and for the purpose specified.

ROBERT B. STANTON.

Witnesses:

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