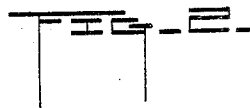
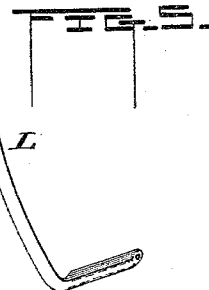
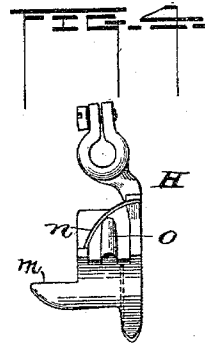
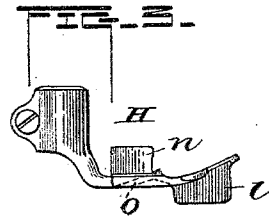
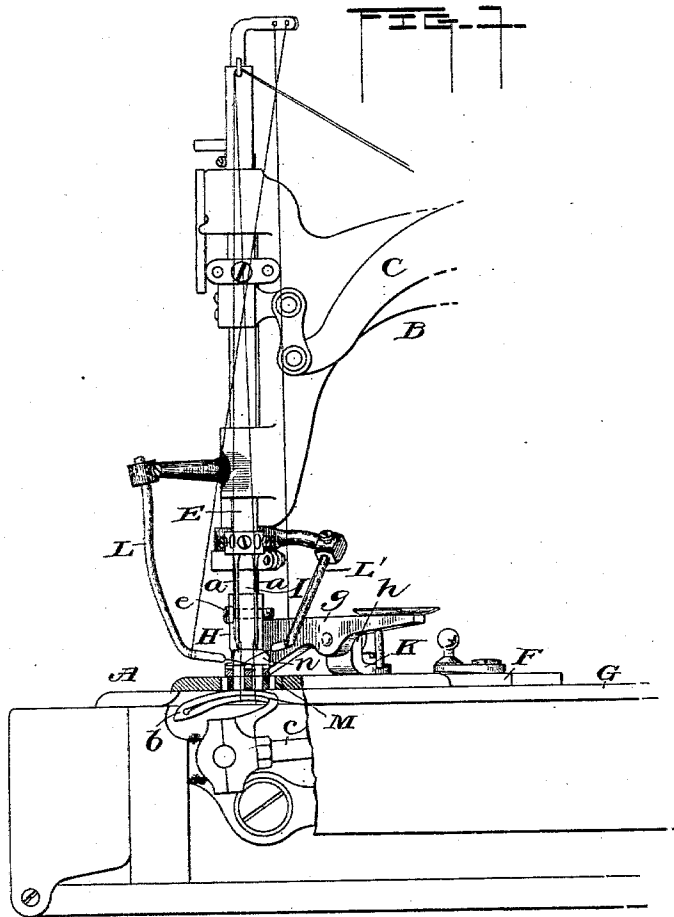


(No Model.)

R. G. WOODWARD.
SEWING MACHINE.

No. 566,707.

Patented Aug. 25, 1896.



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SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 566,707, dated August 25, 1896.

Application filed January 17, 1896. Serial No. 575,912. (No model.)

To all whom it may concern:

Be it known that I, RUSSEL G. WOODWARD, a citizen of the United States, residing at Waukegan, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to sewing-machines, and particularly to what is known as the "Union Special Double Interlock Machine," in which two needles cooperating with a single under-thread-carrying looper are used, together with two thread-carrying fingers reciprocating back and forth across the line of the seam and depositing cross-threads which are secured to the fabric by the rows of stitches made by the needles and the looper.

The invention consists in certain improvements in the presser-foot, in the means for operating it, and in various other matters hereinafter described, and referred to in the appended claims, which makes the machine with these parts applied particularly useful in sewing around the edges of small cylindrical bodies, such as small stockings and the like.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of so much of a double interlocked sewing-machine as is necessary to a complete understanding of my invention. Fig. 2 is a plan view of the cloth-plate slide provided with my improved means for operating the presser-foot. Fig. 3 is a side elevation of the presser-foot; Fig. 4, a plan view thereof; Fig. 5, a view of a peculiar form of thread-carrying finger which forms a part of the present invention.

In the drawings, A represents a portion of the base of a double interlock sewing-machine.

B is the gooseneck; C, the needle-lever; E, the needle-bar carrying the two needles *a a*. *b* is the looper operated from the needle-lever by the looper-rod *c*.

F is the cloth-plate slide, herein shown as hinged to the bed-plate G; but it will be un-

derstood that it may be made to slide in grooves therein, and H is the presser-foot attached to the presser-bar I in the usual way by having its shank sleeved and clamped upon said bar. The screw *e*, which clamps the shank of the presser-foot upon the bar, is provided with an extension, the under side of which is adapted to engage a pivoted thumb or finger lever *g*, pivoted to the vertical part *h* of an angle-piece K, pivoted to the cloth-plate slide and adapted to have limited movement horizontally between the stops *i*. This affords a lifting device by which the presser-foot is conveniently raised whenever the article to be sewed is placed on the machine, and has been devised for the reason that it is inconvenient on a machine of this character to attach one of the ordinary foot-lifting devices to the presser-bar. When it is desired to move the cloth-plate slide, the lever is swung laterally on the pivot of the angle-piece K to disengage said presser-foot from the under side of the screw.

L L' are the laterally-swinging thread-carrying fingers which lay cross-threads back and forth between the rows of stitches on the upper surface of the fabric, and while the finger L' is of ordinary construction I have formed the finger L of special shape, as shown, to prevent the finger in its lateral motion from crossing over too far and forcing back the edge of the article to be sewed. This construction of finger is useful in connection with the special form of presser-foot now about to be described and which forms a further improvement in machines of this character. This presser-foot H has upon its front end a keel or fin *l*, which registers with the slot in the throat-plate M in advance of the stitch-forming mechanism, and this keel forms a guide for the edge of the fabric. Upon the left of the forward end of the foot extends a projection or horn *m*, which provides a convenient means for holding down the edge of the goods, and upon this horn the article to be sewed is turned and directed back toward the operator. Instead of feeding the article straight through the machine it is desirable, as just intimated, to move it around at a straight line, and to accomplish this re-

sult the presser-foot at the point where it is attached to the shank is almost entirely cut away. Projecting vertically from the presser-foot is a guard *n*, formed as shown, which prevents the needles from stitching into the article being sewed. The presser-foot is provided with a tongue *o*, which is a convenient but not absolutely essential feature. By the use of this foot it is possible to sew the edge of a closed tube with an ornamental stitch, which it has not been heretofore possible to do upon a flat-bed machine.

It will be understood that I do not wish to be limited to the exact construction of sewing mechanism herein shown and described, as any other machines making a cross-stitch may be substituted therefor, or I might use an overedge stitch-forming mechanism.

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

1. In a sewing-machine, a presser-foot, a base-plate, a lever pivotally connected to the base-plate and pivoted to swing vertically and also pivoted to swing horizontally on a vertical axis, with means on the presser-foot with which the lever is adapted to engage; substantially as described.

2. In combination with the cloth-plate slide, an angle-piece *K* having the vertically-projecting portion and having its horizontal part pivoted to the cloth-plate slide and having a limited horizontal swinging movement on said pivot, a lever pivoted to the vertical portion of the angle-piece and adapted to engage the

presser-foot to lift the foot; substantially as described.

3. In a sewing-machine a presser-foot having an opening for the passage of the needles and provided with an opening in rear of the needles in line therewith whereby the goods after being sewed may be passed up through said opening and deflected toward the front of the machine; substantially as described.

4. The herein-described machine for sewing the edges of tubular articles comprising stitch-forming mechanism including two vertically-reciprocating needles and complementary stitch-forming mechanism, of a presser-foot having an opening for the passage of the needles and having a vertically-projecting guard in rear of said needles and a cut-away portion in rear of said guard whereby the edge of the tube may be fed in a straight line, said presser-foot being provided with a tongue arranged in a plane between the needles; substantially as described.

5. A presser-foot for sewing-machines having a laterally-extending horn, an opening for the passage of the needle or needles, a vertically-projecting guard in rear thereof and a cut-away portion in rear of said guard; substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

RUSSEL G. WOODWARD.

Witnesses:

CHESTER McNEIL,
E. L. BLAICKIE.