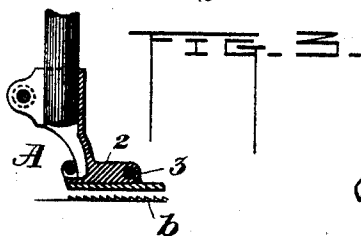
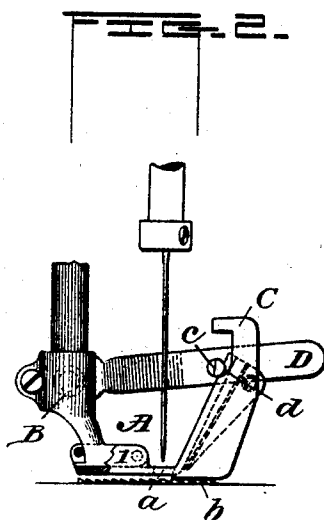
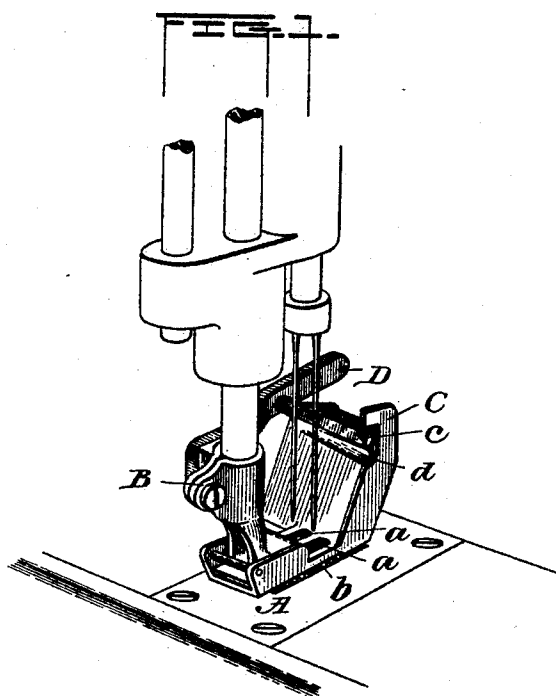


(No Model.)

R. G. WOODWARD.
PRESSER FOOT FOR SEWING MACHINES.

No. 519,897.

Patented May 15, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

RUSSEL G. WOODWARD, OF WAUKEGAN, ASSIGNOR TO THE UNION SPECIAL SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS.

PRESSER-FOOT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 519,897, dated May 15, 1894.

Application filed April 6, 1893. Serial No. 469,283. (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 Presser-Foot for Sewing-Machines, of which the following is a description, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

My invention relates to an improvement in presser feet for sewing machines, and particularly to those for use on machines for sewing knit goods.

In the sewing of knit goods, it is desirable in sewing around the necks of shirts or in other similar places, to gather the goods, so as to prevent the liability to pucker which spoils the appearance of the goods. This puckering is particularly liable to occur in sewing cross-wise of the wale, while in sewing lengthwise there is no danger of such a result. It has been heretofore proposed to accomplish the desired result by providing special constructions of feeding mechanism, but it is the object of the present invention to provide a compound presser foot of such construction that in sewing lengthwise of the wale, it can be so arranged as to bear perfectly flat upon the fabric in front and rear of the needles, thus allowing the goods to be fed equally at all points, while in sewing crosswise of the wale, it can be made to rise from the fabric in rear of the needles but bear with increased pressure in front, so that the goods being fed from the front only, thereby compress the wales of the goods together so that when released the goods spring back to normal position and prevent puckering.

My invention consists in the matters hereinafter described and referred to in the appended claims.

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

Figure 1 is a perspective view of my invention showing the position of the presser foot when goods are being sewed lengthwise of the wale. Fig. 2 is a similar view showing the position of the presser foot when goods are being sewed crosswise of the wale. Fig.

3 is a detail view showing the manner of pivoting the foot to the shank.

In the drawings I have shown my invention as applied to a machine in which a tape or ribbon is also secured to the goods, but it will be understood that it may be applied to any kind of a foot.

A represents as a whole that portion of the foot which bears upon the material, this being pivoted to the shank B attached to the presser bar. This pivotal connection is made as follows: The presser foot is provided at the rear end with vertical side pieces 1, 1, between which the flat portion 2 of the shank is pivoted at the front by means of the pin 3.

a, a, represent the needle holes, and *b* the feeding mechanism which bears against the fabric on the under side acting in conjunction with the presser foot to feed the fabric. The front portion of the presser foot is preferably constructed so as to bear on the fabric beneath one side of the foot, while the rear portion is made flat in the ordinary manner. It will, of course, be understood, however, that the front portion may be made flat. The position of the presser foot when it is desired to operate lengthwise of the wale is shown in Fig. 1, in which the front and rear portions of the foot bear equally upon the fabric, and the feed bearing upon the under side of the fabric both in front and rear of the needles, every part of the goods is fed equally. Extending upward from the toe of the foot is an arm C having a hooked upper end. This hooked end acts as a stop for a cross arm *c* to prevent too great an upward movement. This cross arm is attached to a lever D pivoted to the shank of the presser foot. The cross arm *c* is preferably of spring metal and is held in its lowest position by fitting into a notch *d* formed in the arm C. By pressing down on the front end of the lever D the heel of the foot is raised and the front portion forced down upon the fabric, the parts being held in that position by the cross arm slipping into the notch *d*. When the lever is released the presser foot spring tends to return the foot to normal position.

The operation of the device will be readily understood. In sewing lengthwise of the

wales the presser bar spring keeps the foot flat on the fabric both in front and rear of the needles, but when it is desired to sew crosswise of the wales the lever is forced down until the cross arm fits into the notch, thus raising the heel of the foot, relieving the pressure in the rear, and forcing down that portion in front of the needles so that when the feed acts the wales are compressed together and gathered, so that when released the goods spring back to their natural position. Were there no gathering of the goods in front of the needles but the feed were in the rear, the fabric would be stretched and the stitches, passing through the stretched portion, the fabric would be puckered. It will of course be understood that if desired, the presser foot may be provided with tongues, one or more in number extending into the needle opening, over which the stitches may be formed.

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

1. In a sewing machine, a presser foot pivotally attached to its support and having two stops on its front end, and a lever pivoted to the presser foot support and adapted to engage one or the other of said stops as desired; substantially as described.

2. A compound presser foot pivoted on its shank so as to tilt, a lever pivoted to the shank, a hooked arm attached to the front portion of the foot, said front portion having also a recess, and a cross arm attached to the lever adapted to engage the hooked arm and the recess as desired; substantially as described.

3. A compound presser foot pivoted on its shank so as to tilt, a lever pivoted to the shank a hook attached to the front portion of the foot, said front portion being also provided with a notch, and a spring projection attached to the lever and adapted to engage the hook and the notch as desired; substantially as described.

4. A sewing machine presser foot comprising the pivoted part A, the shank, the horizontal lever pivoted to said shank and having the transverse projection, said pivoted part A being provided with stops adapted to be engaged by the transverse projection; substantially as described.

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

RUSSEL G. WOODWARD.

Witnesses:

CHESTER MCNEIL,
CHAS. L. STURTEVANT.