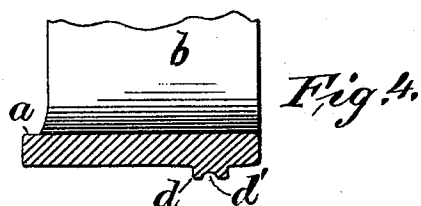
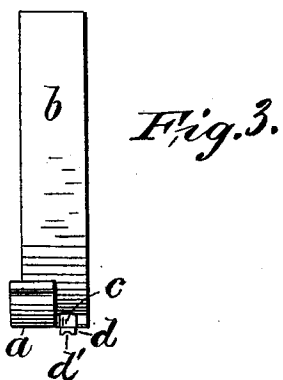
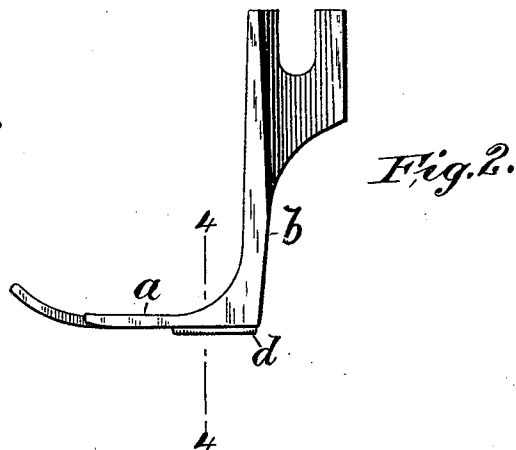
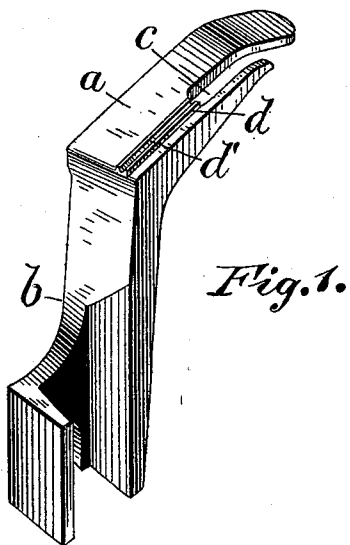


(No Model)

L. H. SMITH & P. SHATFORD.
PRESSER FOOT FOR SEWING MACHINES.

No. 582,701.

Patented May 18, 1897.



WITNESSES:

C. W. Benjamin
J. H. Greene

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UNITED STATES PATENT OFFICE.

LEWIS HENRY SMITH AND PHILIP SHATFORD, OF KILBOWIE, SCOTLAND,
ASSIGNORS TO THE SINGER MANUFACTURING COMPANY, OF NEW
JERSEY.

PRESSER-FOOT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 582,701, dated May 18, 1897.

Application filed January 29, 1897. Serial No. 621,180. (No model.)

To all whom it may concern:

Be it known that we, LEWIS HENRY SMITH and PHILIP SHATFORD, both sewing-machine experts in the employment of The Singer Manufacturing Company, residing at Kilbowie, Dumbartonshire, Scotland, have invented certain new and useful Improvements in Presser-Foot for Sewing-Machines, of which the following is a specification.

This invention relates to a sewing-machine presser-foot for use in stitching collars, cuffs, and other articles requiring the subsequent employment of calendering-rolls or smoothing-irons in dressing the same; and it has for its object to sink or depress the stitching below the upper surface of the goods beyond the range of action of such smoothing implements, whereby the stitching may be protected from injury or disarrangement after the completion of the seam. This result may be attained either by directly pressing the upper thread into the body of the fabric, slightly below its surface, subsequent to the formation of the successive stitches, or by forming a groove or crease in the fabric in advance of the needle in which to lay the upper thread.

We prefer to employ the former method of settling the stitching, as by such operation it is permissible not only to effect the desired result in a positive manner, but to bring into alinement by positive means any stitches which may have been laid defectively by reason of the lateral vibration of the needle. To adapt the presser-foot for performing this operation, we form upon its under or operative face a narrow downwardly-projecting blunt-faced longitudinal rib in line with the needle-aperture, (and lying, therefore, in a line intersecting the path of reciprocation of the needle through the needle-aperture and in the direction of the feed of the machine,) by which means the whole pressure of the presser-bar is made available in depressing the narrow strip of the fabric in which the upper thread of the line of stitching is or may be laid. While this rib may be applied to the bottom of the presser-foot in front of the needle-aperture, so as to form a groove or crease in the fabric for the reception of the thread subse-

quently laid by the needle, it is shown herein disposed in the rear of the needle-aperture, in which arrangement its lower or operative face is preferably formed with a concave groove running lengthwise thereof to enable it to serve in addition as a guide for bringing into alinement any staggered or irregular stitches which may have been produced by lateral vibration of the needle in the formation of the stitches.

In the drawings annexed, Figure 1 is a perspective view of a presser-foot embodying the present improvement. Fig. 2 is a side elevation, and Fig. 3 a front elevation, of the same. Fig. 4 is a transverse section on line 4 4 in Fig. 2, but upon a larger scale.

The presser-foot *a* is shown provided with the usual shank *b*, having means for attachment to the presser-bar, and with needle-slot *c* in its forward portion.

Upon the undersurface of the foot is formed the downwardly-projecting blunt-faced longitudinal rib *d*, extending from the needle-slot to the rear end of the foot and provided in its under side with the shallow groove *d'*, running lengthwise of the same.

While the presser-foot illustrated herein has its needle-aperture formed as an open slot extending from the middle portion of the foot to its front end, it is obvious that the improvement is equally applicable to presser-feet having the needle-aperture closed at the front side, so as to be adapted for the disposition of the rib either in advance or in the rear of such aperture. It is further evident that the form of cross-section and extent of the blunt-faced rib are immaterial parts of the improvement, the essential feature of which is the disposition of such rib in front of or behind the needle-aperture in a direction longitudinal of the foot and in line with the needle-aperture, so as to traverse the path of the stitch-forming mechanism in the fabric. With the rib thus disposed its blunt lower face will sink or depress the stitching below the upper surface of the goods, as hereinbefore stated.

In machines provided with a plurality of vertically-reciprocating needles the operative face of the presser-foot would obviously be

provided with a projecting longitudinal rib for coöperation with each needle, as above described.

Having thus set forth the nature of the invention, what we claim herein, and desire to secure by Letters Patent, is—

1. A sewing-machine presser-foot provided with a needle-aperture and having on its lower face a rigid, blunt-faced, longitudinal rib projecting below the surface of said face and arranged in line with said needle-aperture.

2. A sewing-machine presser-foot provided

with a needle-aperture and having on its lower face a downwardly-projecting, rigid, longitudinal rib *d*, said rib having a central longitudinal groove *d'* which is in line with said aperture.

Signed at Glasgow, in the county of Lanark, Scotland, this 11th day of December, 1896.

LEWIS HENRY SMITH.

PHILIP SHATFORD.

Witnesses:

WALLACE FAIRWEATHER,
JNO. ARMSTRONG, Sr.