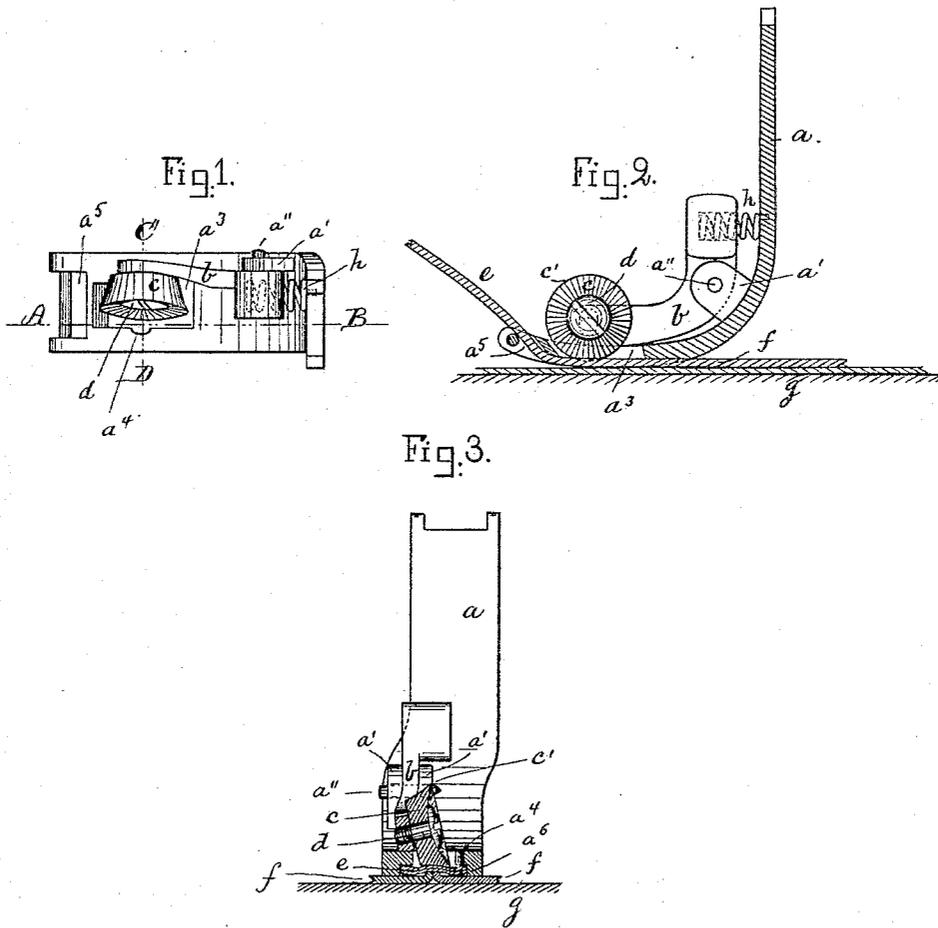


(No Model.)

H. P. LANCASTER.
SEWING MACHINE PRESSER FOOT.

No. 321,304.

Patented June 30, 1885.



Witnesses.

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Inventor.

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UNITED STATES PATENT OFFICE.

HENRY P. LANCASTER, OF LYNN, MASSACHUSETTS.

SEWING-MACHINE PRESSER-FOOT.

SPECIFICATION forming part of Letters Patent No. 321,304, dated June 30, 1885.

Application filed February 19, 1885. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. LANCASTER, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sewing-Machine Presser-Feet; and I do hereby declare that the same are fully described in the following specification, and illustrated in the accompanying drawings.

This invention relates to an improved presser-foot for applying seam-stays to boots and shoes, and it is carried out as follows, reference being had to the accompanying drawings, where—

Figure 1 represents a plan view of the invention. Fig. 2 represents a longitudinal section on the line A B, shown in Fig. 1; and Fig. 3 represents a cross-section on the line C D, also shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In applying seam-stays to cover up boot and shoe seams it is essential that the stay should be permitted to be fed forward with the boot and shoe upper with the least amount of frictional resistance to enable the work to be done evenly and rapidly. It is also essential that the stay and upper should be held in close contact with each other in close proximity to the place where the stitch is taken by the needle, so as to produce a durable and perfect seam. As both the upper and seam-stay vary in thickness during their lengths, it is also requisite that such part of the presser-foot as rests on the seam-stay should be capable of a yielding motion independent of that of the vertically-yielding presser-foot bar to which it is secured, so as to yield readily to such inequalities in the thickness of seam-stay and upper, and for these purposes I construct my invention as follows:

a is the ordinary presser-foot, having its upper vertical end secured to the vertically-yielding presser-foot bar on a sewing-machine, as usual.

On the presser-foot a are arranged bearing-pieces a' a' , which may be made in one piece with the presser-foot a or attached to it in any suitable manner. At a'' is hinged to the bear-

ings a' a' the yielding lever b , to the forward end of which is mounted loosely the anti-friction roller c upon the screw or pin d , that is secured to the forward end of lever b , as shown in the drawings. 55

a^3 is a slotted perforation in the horizontal portion of the presser-foot a to permit the roller c to enter it while in the act of resting on the seam-stay e , located above the junction of the upper f f of a boot or shoe during the process of sewing the seam-stay to the upper. 60

g represents the usual sewing-machine plate or feed-support, on which the upper f rests during such process of sewing the seam-stay and upper together. The anti-friction roller c is preferably made conical or tapering, as shown in Figs. 1 and 3, with an annular edge or rim, c' , in its larger end, so as to cause such edge or rim to bear against the seam-stay in close proximity to the place where the stitch is taken by the needle. 70

a^4 is a cut-away place on one side of the slotted perforation a^3 for the needle to enter as close as possible to the rim c' of the anti-friction roll c , as shown in Fig. 1. It is important that the needle-hole or slot a^4 be formed in the presser-foot at one side of and directly opposite and in line with the axis or center of the roller c , in order that the needle may pass through the material in close proximity to the point where the material is pressed upon by the roller. 75 80

Between the upper end of hinged lever b and the presser-foot a is located a yielding pressure-spring, h , acting on the lever b to hold the roller c with a yielding pressure against the upper side of the seam-stay e , as shown in the drawings. I do not wish to confine myself to any particular kind of spring for this purpose, as a flat, elliptic, coiled, or other equivalent spring may be used to equal advantage. Neither do I wish to confine myself to the precise location of said spring h , as shown in the drawings, as such may be varied without departing from the essence of my invention, it being only essential that the roller c shall be capable of a yielding motion relative to the seam-stay and to revolve loosely on its axis as the material is fed forward. 85 90 95 100

In practice I prefer to feed the seam-stay e through the guide-perforation a^5 in the outer

end of presser-foot *a*, as shown in Fig. 2; but such guide-perforation forms no part of my present invention.

When the improved presser-foot is used for the purpose of applying seam-stays to the outside of upper-seams, I make the under side of the horizontal portion of such presser-foot with a guide-groove, *a'*, (shown in Fig. 3,) to receive the seam-stay as it is fed forward; but such guide-groove may be dispensed with if the device is to be used for applying seam-stays on the inside of the boot or shoe.

I am aware that a twin sewing-machine has been provided with two presser-feet and a laterally-adjustable spring-pressed roller arranged between and journaled in the forward ends of the presser-feet to hold down the work between the presser-feet; and I am also aware that a presser-foot has been provided with an attached spring-pressed arm to press on the material at one side of the presser-foot. Such devices are not claimed by me.

What I wish to secure by Letters Patent and claim is—

1. The combination, with a presser-foot having a slot and a needle-hole, of a yielding and revolving roller arranged in said slot, with its axis or center directly opposite and at one side of the needle-hole, substantially as and for the purpose described.

2. The combination, with a presser-foot having a slot and a needle-hole, of a yielding and revolving conical roller arranged in said slot, with its axis or center approximately in line with the needle-hole, substantially as and for the purpose described.

3. The combination, with a presser-foot having a slot, of a swinging spring-impelled lever pivoted upon the presser-foot, and a roller journaled on the lever to revolve in the slot of the presser-foot, substantially as described.

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

HENRY P. LANCASTER.

Witnesses:

ALBAN ANDRÉN,
M. CADDIE LEWIS.