

C. TURNER.

PRESSER-FEET FOR SEWING-MACHINES.

No. 192,546.

Patented June 26, 1877.

Fig. 1.

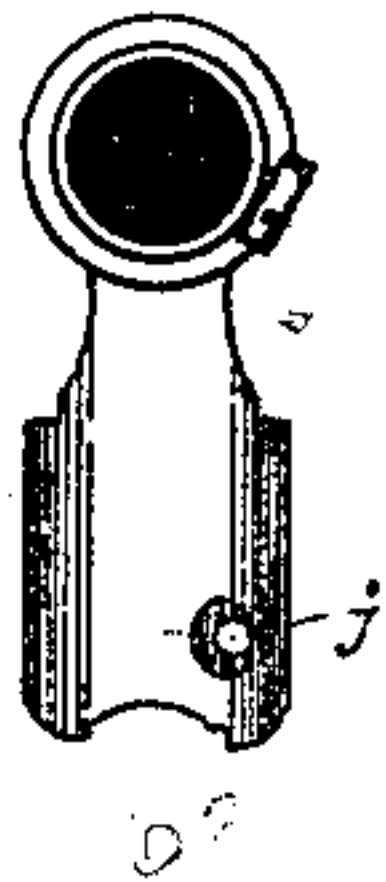


Fig. 2.

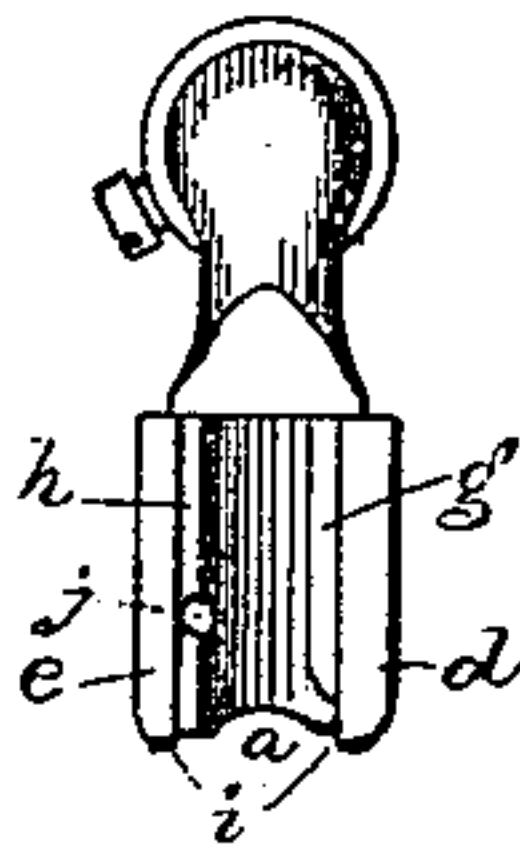


Fig. 3.



Fig. 5.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN PRESSER-FEET FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 192,546, dated June 26, 1877; application filed  
May 19, 1877.

*To all whom it may concern:*

Be it known that I, CHARLES TURNER, of Lynn, in the county of Essex and State of Massachusetts, have invented an Improved Presser-Foot for Sewing-Machines, of which the following is a specification:

This invention relates to presser-feet for sewing-machines, and has special reference to a foot provided with a large central groove or recession, as hereinafter described, with faces adjacent thereto to bear upon the upper sides of the stay-strip, and with ledges to guide and retain a stay-strip (preferably a folded strip) while being stitched near its edges to a boot or shoe, to cover a seam.

Stay-strips made of leather of a single thickness, and also of strips of leather folded at their edges, have been commonly applied to cover the seams of boots and shoes, and folded strips have been commonly embossed or depressed or grooved for the reception of stitches, as well as for the covering of a raised part between.

In practice it is very desirable that the two rows of stitching uniting the opposite edges of the stay-strip to the shoe at each side the seam be sunk below the level of the surface of the strip at each side of such stitches, so as to protect the stitches from abrasive wear.

In shoe work it is common to sew the uppers together, so that the ridge of the seam, or the ends of the pieces of leather outside the seam, lie next the foot, and also so that they turn out away from the foot.

My presser-foot is more especially designed to apply a stay-strip to the ridge of the seam, it being turned outward next the stay-strip.

My improved foot is grooved at its under side to form vertical walls to guide the edges of the stay-strip; then substantially at right angles to such walls are horizontal faces, extended a short distance toward the center of the foot, and between these faces the presser-foot is provided with a concaved recession, sufficient in extent to receive the seam-ridge and central portion of the stay bent or lapped about the underlying seam-ridge, the strip then rising into the concaved recession, and rounding upward some distance above and higher than the surface of the strip at its edges.

Making the central recession deeper than the recessions at each side thereof, in which move the edges or those portions of the strip outside the lines of seam, is a matter of great practical importance. If the bottom of the central recession were on a level with the recessions at the side thereof which bear upon the upper edges of the strip, then the central portion of the strip could not be shaped and rounded uniformly over the ridge of the seam, and be held down upon the material to which the stay-strip is being united, close to the seam-ridge.

It is inevitable in a folded leather stay-strip that the strip at its folded edges will be thicker than twice the thickness of the material forming the strip before it was folded. Consequently the upper and lower surfaces of the strip at its extreme folded edges, if the strip be held at its central portion, will project above and below the planes of the central portion of the strip at bottom and top, as in Fig. 5. Such a strip placed upon a plane surface will assume a form substantially as in Fig. 6, wherein all the excess of thickness of the strip at the folded edge is projected above the upper plane of the strip.

Three things contribute to form a recession or channel-way for the reception and protection of the stitches, viz: the expansion of the folded edge or bight of the stay-strip projected outward; the tension of the thread in stitching within the bight; and the elevation of the central portion of the stay-strip over the underlying seam for a greater distance than the portions of the foot that bear on the upper portions of the stay-strip at its upper side edges.

Figure 1 represents a plan view of a presser-foot constructed in accordance with my invention; Fig. 2, an under-side view thereof; Fig. 3, a cross-section thereof; Fig. 4, a cross-section of a stay-strip applied to a seam in a boot or shoe, my improved foot having been employed to guide and to form the stay-strip over an underlying seam or projection, and to hold the sides of the same about the seam; Figs. 5 and 6, cross-sections of a stay-strip of ordinary construction before and after being stitched.

The foot herein shown is adapted to a Howe



machine. Its central portion is grooved longitudinally at *a*, to receive the central portion of the stay-strip *b* and cover the ridge *c* of the seam without lifting the edges *d e* of the under surface of the foot from contact with the material *f* of the shoe. The ledges or faces *g h* bear upon the sides of the stay-strip beyond the seam, and the walls *i* act as guides for its extreme side edges.

The needle-hole *j* permits the needle to penetrate and stitch the stay just within the folded bight at the edge of the stay, at *n*, thereby leaving the outside edge of the strip above the surface of the stitches.

The groove *a* permits the center of the strip to be raised by the seam-ridge a considerable distance above the edges of the strip, and such raised center part forms a surface between the two rows of stitches higher than the surface of the stitches, and the thread drawn taut in the formation of the stitches is consequently placed in a channel or guideway, where it is protected.

The faces *g h*, resting upon the upper portion of the strip, hold the under side of the stay at its edges in close contact with the material of the boot or shoe on each side of the seam being covered.

I claim—

1. A sewing-machine presser-foot provided

at its bottom with a longitudinal recess, *a*, to receive the center of a stay-strip pressed upward therein by the ridge of a seam to which the stay is being applied, and with ledges or faces at the edges of the recess lower than the central recess, to rest upon and extend to the edges of the stay-strip, and with a needle-passage to permit a needle to penetrate the stay-strip between its outside edge and its more elevated central or seam-covering portion, in order that stitches may be formed below the surfaces of the stay-strip, substantially as described.

2. A sewing-machine presser-foot provided with a longitudinal central groove, to receive the center of a stay-strip and allow it to bulge upward therein when applied to cover a seam, and with ledges or faces *g h* at the sides thereof, to bear upon the upper edges of the stay-strip at a lower level than the central portion of the foot, and with edge-guides to guide the outside edges of the strip, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES TURNER.

Witnesses:

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E. C. PERKINS.