

(No Model.)

J. S. TURNER.

LAST.

No. 382,339.

Patented May 8, 1888.

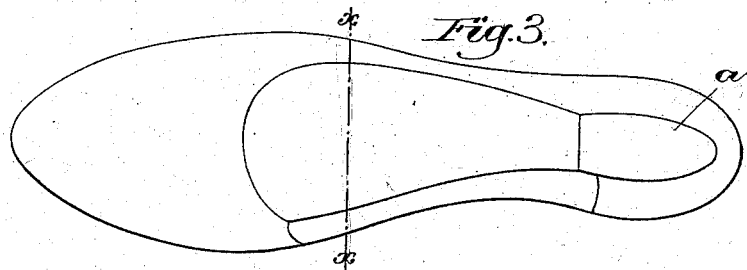
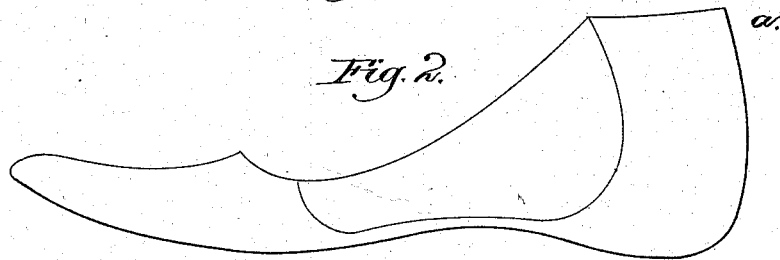
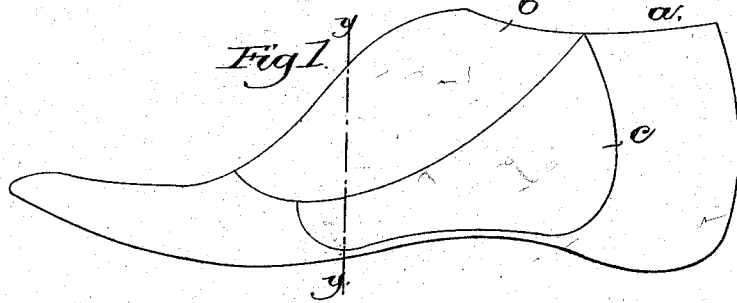


Fig. 5.

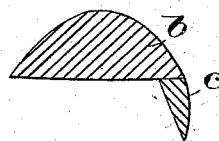


Fig. 6.

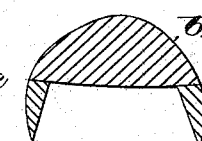


Fig. 7.

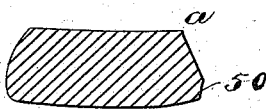
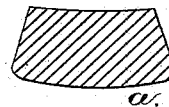


Fig. 8.



Witnesses.
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UNITED STATES PATENT OFFICE.

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LAST.

SPECIFICATION forming part of Letters Patent No. 382,339, dated May 8, 1888.

Application filed August 31, 1887. Serial No. 248,374. (No model.)

To all whom it may concern:

Be it known that I, J. STANLEY TURNER, of Rockland, county of Plymouth, and State of Massachusetts, have invented an Improvement in Lasts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In the manufacture of boots and shoes of the class commonly termed "welted," or a boot or shoe wherein the outer sole is attached by a line of stitches outside the upper, it has been common to remove the last previous to sewing on the sole, so that the upper could be moved inwardly, particularly on the long-shank side, to thus expose or present the edge of the sole to a sole-sewing machine in order that the needle may penetrate the sole close to the upper. Such has been the practice heretofore, more particularly when the sole-sewing machine employed had a straight needle, as in the sole-sewing machine known as the "Campbell."

This invention has for its object to provide a last only a portion of which need be removed when the sole is to be sewed in place at the long-shank side, the main body or sole portion of the last being retained in the boot or shoe.

The invention consists in a last having a removable block or portion at its upper side, and also an auxiliary removable portion cut from the main body of the last beneath the block and along its long shank.

The auxiliary portion referred to as detached from the main body of the last, so as to be removed from contact with the inner side of the upper at the long-shank side, may, if desired, be attached to a component part of the last—such, for instance, as the block. When the block is withdrawn and the auxiliary portion of the last removed from contact with the interior of the upper at the long-shank side, the said upper may be pressed in at the long-shank side to enable the straight needle to stitch the sole along the shank.

It is particularly desirable when making the cut by which to sever the auxiliary portion referred to from the last upon the long-shank side that the line of severance between the said portion and the bottom or sole of the last coincide with the contour of the sole to be

placed upon the last, and in practice it has been found somewhat difficult to guide a saw to effect this result; and therefore my invention further consists in the method of truing the line of severance between the removable portion and the sole portion of the last to exactly coincide with the contour of the sole of the last, which method of truing consists in placing upon the sole of the last a sole of the shape desired, and then removing the material between the line of severance and the edge of the sole, or the line indicating the position occupied by the sole, substantially as will be described.

My invention also consists in details of construction and modifications to be hereinafter described.

Figure 1 shows in side elevation a last embodying this invention; Fig. 2, a similar view, the last-block and the auxiliary portion being removed; Fig. 3, a top view of the last shown in Fig. 2; Fig. 4, a cross-section of the last shown in Fig. 3, taken on the dotted line *xx*; Fig. 5, a cross-section of the last and the auxiliary removable portion, taken on the dotted line *yy*, Fig. 1; Fig. 6, a view similar to Fig. 4, the material between the line of severance of the auxiliary portion and the true contour of the bottom or sole and the last being removed; Figs. 7 and 8, cross-sections of a modified form of last, to be referred to.

The main body *a* of the last has a removable block, *b*, cut therefrom or made as a separate piece and fitted thereto, the block being of any usual or suitable shape.

The main body *a* of the last has also an auxiliary portion, *c*, removed from the long-shank side thereof beneath the block *b*, the line of severance of the said auxiliary portion at the lower side coinciding with the desired contour of the bottom of the sole of the last, or to the shape of the sole to be applied to the bottom of the last.

The auxiliary portion *c* may be removed independently, or it may be attached to a component part of the last, it being herein shown as attached to the last-block *b*, so as to be removed from contact with the interior of the upper after starting to withdraw the usual last-block. In this way it will be seen that an old

last may be remodeled, if desired, by simply cutting away the auxiliary portion *c* and attaching it or not, as desired, to a component part of the last.

5 The last is employed in usual manner until the boot or shoe has reached the shank, where the sole is to be stitched on, and then instead of removing the entire last, as now practiced, the block *b* and the auxiliary portion *c* are both
10 removed from the position they normally occupy to permit the upper to be drawn or pushed back over the main body of the last to thereby present upon all sides the edge of the sole to a sole-sewing machine without obstruction.

15 As it is desirable that the needle should penetrate the sole as closely as possible to the upper upon all sides substantially alike, it is especially desirable that the line of severance of the auxiliary portion at its lower side should
20 exactly coincide with the desired contour of the bottom of the last as to the shape of the sole to be applied to the bottom of the last, and, as it is very difficult to direct or guide a saw to effect this result, I place upon the bottom of
25 the last after the auxiliary portion has been removed, as above described, a sole of the shape desired, and then with a knife or other suitable implement remove the material (see Figs. 4 and 6) between the line of severance of the
30 auxiliary portion and the edge of the sole, or it may be a line indicating the position occupied by the sole if, for instance, a line should

be made and the sole thereafter removed. The very small space or cavity, 50, thus formed is not objectionable. 35

In Figs. 7 and 8 I have shown the last-block *b* cut from the main body or sole portion *a* of the last, as above described, and the auxiliary portion, as *c*, cut from each side of the main body or sole portion *a* and attached to the
40 block *b* to better carry out the chief aim of this invention.

I claim—

1. In a last, the main body or sole portion *a* and the block *b*, as described, combined with
45 the auxiliary portion *c*, substantially as and for the purposes specified.

2. In a last, the main body *a* and the block, combined with the auxiliary portion cut from the long-shank side of the main body beneath
50 the block and attached to a component part of the last, substantially as described.

3. A last having the material or portion removed at the instep portion mainly upon the long-shank side, and also having an additional
55 portion removed upon the long-shank side to present the space 50, substantially as described.

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

J. STANLEY TURNER.

Witnesses:

BERNICE J. NOYES,
C. M. CONE.