



# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN LASTS.

Specification forming part of Letters Patent No. 214,114, dated April 8, 1879; application filed September 16, 1878.

*To all whom it may concern:*

Be it known that I, GEORGE W. DAY, of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Boot and Shoe Lasts, of which the following is a full, clear, and exact description.

This invention relates to a last for use in lasting boots and shoes when the inner sole on its upper surface is channeled for the stitches connecting the inner and outer soles and upper to lie in said channel, and the tacks used in lasting to be clinched or riveted in said channel against the last, the lip formed by cutting said channel having been turned over previously to such lasting and stitching, to be afterward turned back and secured by cement or otherwise.

This invention consists in a last for boots and shoes, having the middle portion of its bottom recessed, and a rib covered with a strip of metal, said metal strip being set back from the edge of the rib, so as to leave a marginal recess or shoulder extending around the last, the object of which will be fully hereinafter described.

In the drawings, Figure 1 is a bottom view of a last constructed according to this invention. Figs. 2 and 3 are longitudinal and cross sections, respectively, of a last constructed according to this invention, with the inner sole attached thereto. Fig. 4 is a face view of inner sole as channeled and the lip turned over; Fig. 5, a view in modification.

In the drawings, A represents a last made in accordance with this invention; B, the recess, and C the rib or raised portion; D, the inner sole of a boot or shoe; E, the channel cut in said sole, and F the lip. The rib or raised portion C extends around the last A, except at the heel, and is covered on its outer surface, which is the bottom of the last, with a narrow flat strip of iron, *a*.

As shown in the drawings, the recess B follows the outline of the edge of the last, and it is of a width and depth sufficient for the disposing in it of the lip F of the inner sole, D, when the last A is in the boot for lasting, &c.

By the lip of the channel cut in the inner

sole being disposed in the recess B of the last, the bottom of the rib C, or raised portion of the last, can and will bear on the surface of channel E of the inner sole, so that the lasting nails or tacks, when driven through the upper and inner soles, will be clinched and riveted against the iron strip on the rib of the last, disposing the ends of the nails thus riveted in the channel E or lower portion, *b*, of the inner sole.

After lasting, &c., and when the last is removed from the boot or shoe, the lip F is then turned over and cemented to its channel portion, making then a smooth and neat finish of the inner sole, and one in which the lasting-tacks cannot be seen, to disfigure the surface of the inner sole or come in contact with the stockings.

The strip of iron *a* is set back a short distance from the outer edge of the last, leaving a recess or shoulder, *b*, extending around the last as far as the strip of iron extends, so that the solid portion *c* left at the edge of the inner sole will fit in said recess and around the outer edge of the iron strip, to allow the iron strip to press close to the inner sole in the channel, when a channel is cut in the inner sole, as shown in the drawings.

The iron strip can, however, extend, if desired, to the outer edge of the last, as shown in cross-section in Fig. 5; but in that case the inner sole would have to be split from the edge sufficient distance for the lines of stitches and tacks.

In order to remove the last from the boot or shoe after lasting the same, the last must be cut in two parts, G and H, the line of cut extending from the usual point near the ankle to the extremity, or thereabout, of the toe, as shown in Fig. 3.

To remove the last from the boot or shoe, first take out the part G, and then the lower part, H, can be raised from its position on the inner sole, and be easily taken from the boot or shoe, the reduction in thickness of this lower portion, by this mode of cutting the last, allowing it to be raised, and thus clear the lip F of the inner sole, which lip, if the last were of the full thickness at the toe, would prevent

its removal by the strip of iron on the last catching by its shoulder *d* on said lip.

In lieu of iron any metal could be used for the strip *a*, as is obvious; and the last can be made of iron wholly, or other metal, with the recess in its bottom.

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

A last for boots and shoes having the middle portion of its bottom recessed and its rib *c* covered with a strip of iron, when said iron strip is set back from the edge, substantially as and for the purpose described.

GEO. W. DAY.

Witnesses:

EDWIN W. BROWN,  
W. S. BELLOWS.