C. E. CREE.

LAST.

No. 189,085. Patented April 3, 1877.

Fig. 1.

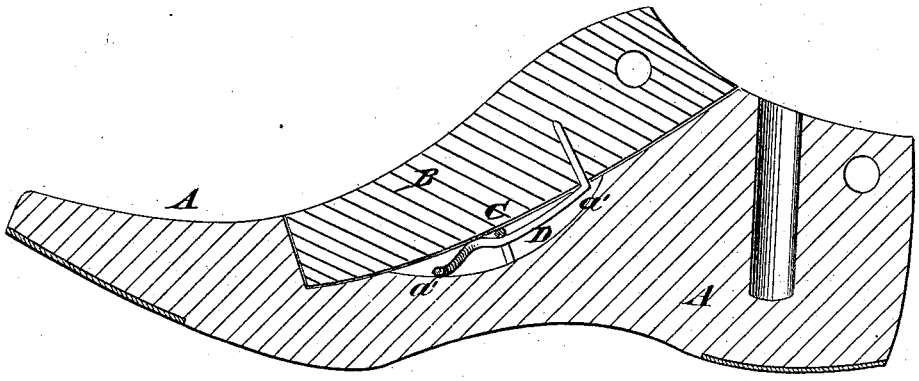
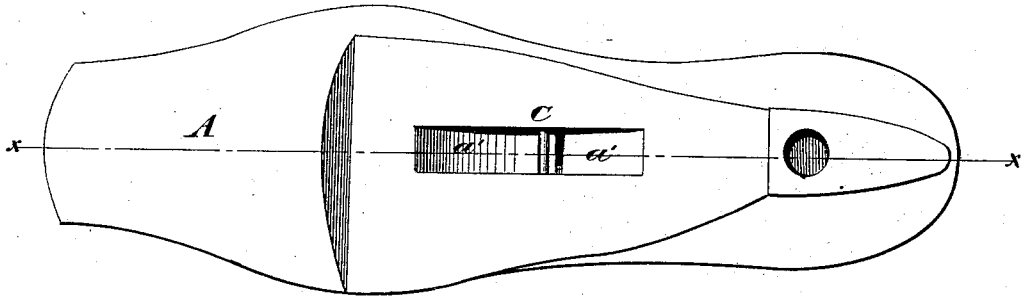


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES E. CREE, OF MARLBOROUGH, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND J. E. CURTIS, OF SAME PLACE.

IMPROVEMENT IN LASTS.

Specification forming part of Letters Patent No. **189,085**, dated April 3, 1877; application filed January 29, 1877.

To all whom it may concern:

Be it known that I, CHARLES E. CREE, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Lasts, of which the following is a specification:

Figure 1 is a vertical longitudinal section of a last to which my improvement has been applied, taken through the line *x x*, Fig. 2. Fig. 2 is a top view of the last, the block being removed.

Similar letters of reference indicate corresponding parts.

The object of this invention is to improve the construction of lasts, in such a way that the block will be firmly held in place and prevented from slipping back while the shoe or boot is being lasted, so that the shoe or boot will have its full intended size, which will not interfere with the removing and replacing of the block, which shall be wholly within the last, having no projecting part to come in contact with the upper while upon the last, which will keep the last and block together, except when being removed from the boot or shoe, so that the block cannot become lost, and no time will be wasted in looking for and sorting out the blocks of the lasts to be used, and which shall be simple in construction, and may be applied to a last at very slight cost.

The invention will first be described in connection with drawing and then pointed out in the claim.

A represents a last, and B its block, which are constructed in the usual way. In the upper side of the last A, beneath the middle part of the block B, is formed a groove, *a'*, which may be made in the arc of a circle, or in any other convenient form, and in the middle part of which is secured a staple, C, the bend of which should be flush with the surface of the last, as shown in Fig. 1. D is a spring, which may be made of wire, bent into U form, or of a thin strip of metal. The end of the spring D is inserted in or secured to the lower side of the block B at a point nearly opposite the rear end of the groove *a'* when the block is in place. The spring D is curved slightly downward, forward, and upward, and is then curved downward and forward, as shown in Fig. 2.

With this construction, as the block B is being inserted in place, and the point of the spring D approaches the staple C, the pressure of the rear bend of the spring D upon the last A, at the rear end of the groove *a'*, lowers the forward end of the said spring, so that it will pass beneath the staple C, which staple, as the block comes to its place, passes over the forward bend of the spring D, and thus holds the said block B in place. The spring D should be of such a length that when the block B comes to its place, the forward end of the said spring D may strike against and be supported by the upwardly-inclined forward part of the groove *a'*, thus forming a double spring.

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

The combination, with a grooved last provided with a staple, as shown, of a last-block, having a curved spring, one end of which enters the body of block, securing it thereto, while the free end is adapted to enter the staple to hold the block in place, all substantially as shown and described.

CHARLES E. CREE.

Witnesses:

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