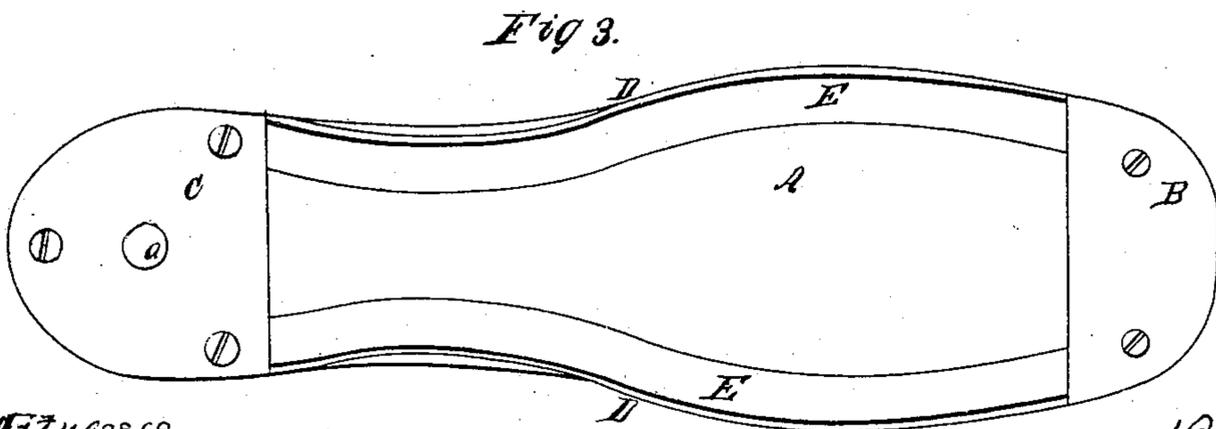
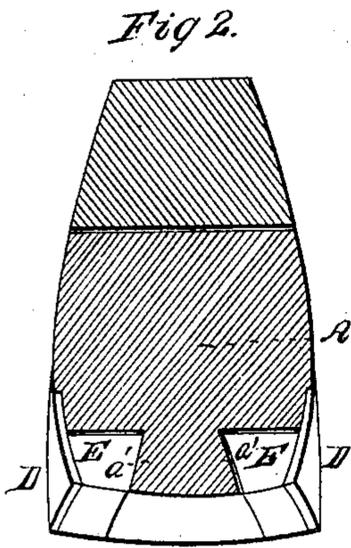
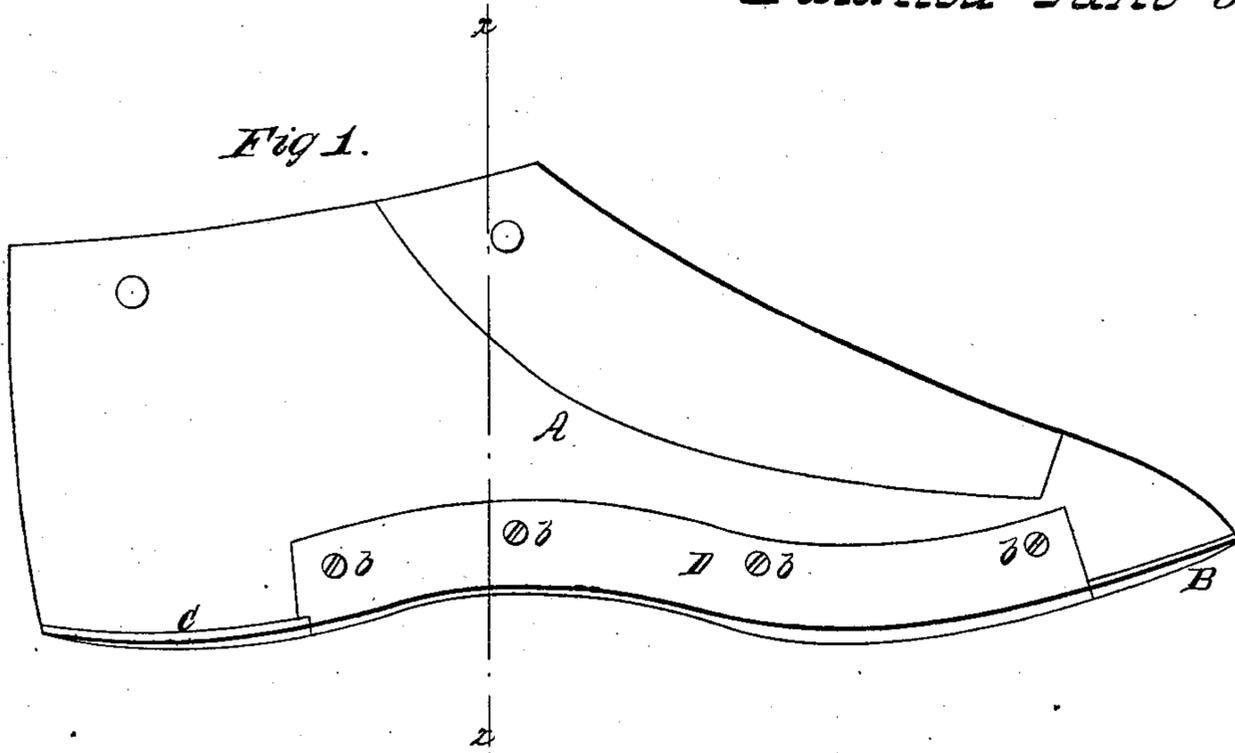


B. L. White,

Shoe Last,

N<sup>o</sup> 39,104.

Patented June 30, 1863.



WITNESSES.

J. Coombs  
G. Reed

Inventor.  
B. L. White  
per Messrs  
Attorneys

# UNITED STATES PATENT OFFICE

BENJAMIN L. WHITE, OF WESTFORD, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND A. NUTTING, OF SAME PLACE.

## IMPROVEMENT IN BOOT AND SHOE LASTS.

Specification forming part of Letters Patent No. 39,104, dated June 30, 1863.

*To all whom it may concern:*

Be it known that I, BENJAMIN L. WHITE, of Westford, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Boot and Shoe Last; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a transverse vertical section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a bottom view or inverted plan of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in having the body of the last constructed of wood and provided at its sides adjoining its bottom with metal plates, metal plates being also secured on the bottom of the last at the toe and heel, and strips of india-rubber or other suitable or similar material inserted in the bottom of the last.

The object of the invention is to obtain a wooden last which will be fully protected from the knife in trimming the soles to it, and one also which will admit of the wooden pegs which secure the upper and sole together of the boot or shoe being readily withdrawn from the last, as well as the metal nails at the toe and heel of the boot or shoe being clinched when driven.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the body or main portion of the last, which is constructed of wood and of the usual form. To the bottom of the last there are secured two metal plates, B C, one, B, being at the toe and the other, C, at the heel of the last. (See more particularly Fig. 3.) The heel-plate C has a hole, *a*, in it about at its center. The bottom of the last, between the two plates B C, is grooved longitudinally at each side, and the backs of these grooves are inclined so as to form a dovetail, as shown at *a* in Fig. 2.

To each side of the last, between the two plates B C, there are screwed by screws *b* metal plates D. These plates, in connection with the inclined backs *a'* of the grooves, se-

cure stops E of india-rubber or other suitable soft or elastic substance, in the grooves. The lower or outer surfaces of the strips E, as well as the lower edges of the metal plates D, are all curved or formed, so as to correspond to the proper shape the bottom of the last should have, and, in fact, form portions of the bottom of the last.

In trimming or cutting the soles of proper form, they are tacked to the wooden portion of the bottom of the last, one tack passing through the hole *a* in the heel-plate C. The plates B C D D, it will be seen, effectually prevent the last being cut by the knife.

In securing the upper to the sole the metal nails at the toe and heel are clinched in consequence of coming in contact with the plates B C, and the wooden pegs which are driven through the upper and sole, between the plates B C, at each side of the last, will penetrate the india-rubber strips E. These strips, however, will admit of the pegs being readily withdrawn from the last, as they cannot firmly hold them. The ordinary wooden lasts soon become materially injured by the penetration of the wooden pegs, and said lasts hold the pegs so as to frequently cause considerable difficulty in removing the boot or shoe from them—a contingency which is fully obviated by my invention.

I would remark that, when the strips E, of rubber or other soft or yielding substance, become much perforated or cut up by the pegs, said strips may, by removing or stretching the plates D, be taken out from the grooves and new strips inserted in their places.

I do not claim, broadly, the invention or use of guard-plates upon lasts; but,

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

The employment of the india rubber or elastic peg-strips E, in combination with the inclined grooves *a'*, plates D, formed as shown, and the last A, all in the manner and for the purpose herein shown and described.

B. L. WHITE.

Witnesses:

WM. W. STILES,  
M. A. STILES.