I. T. Jones,

Shoe Sole,

No 49,118. Patented Aug. 1, 1865.

Fig. 1.

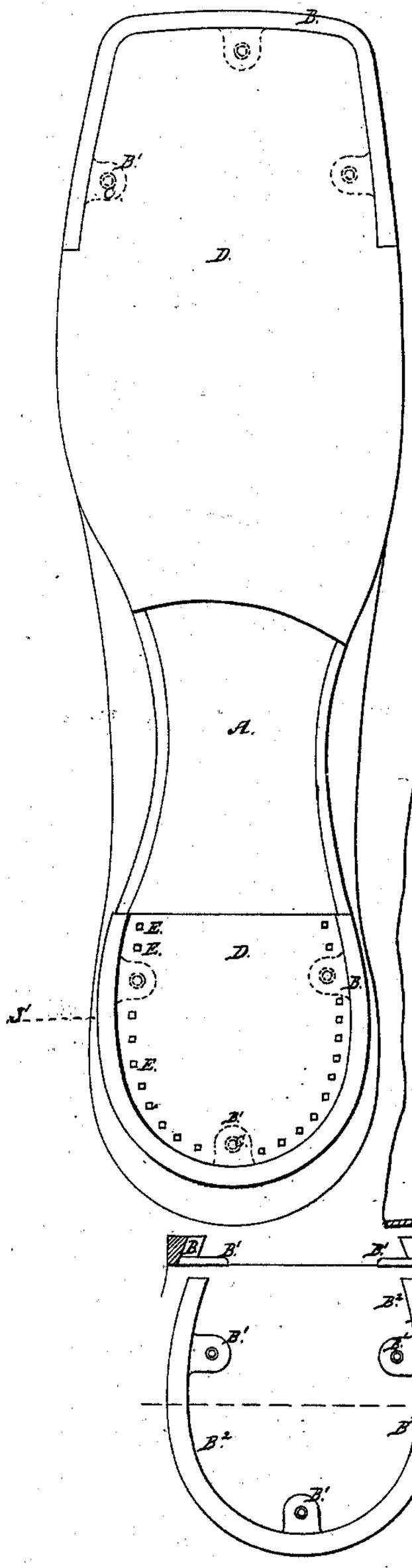
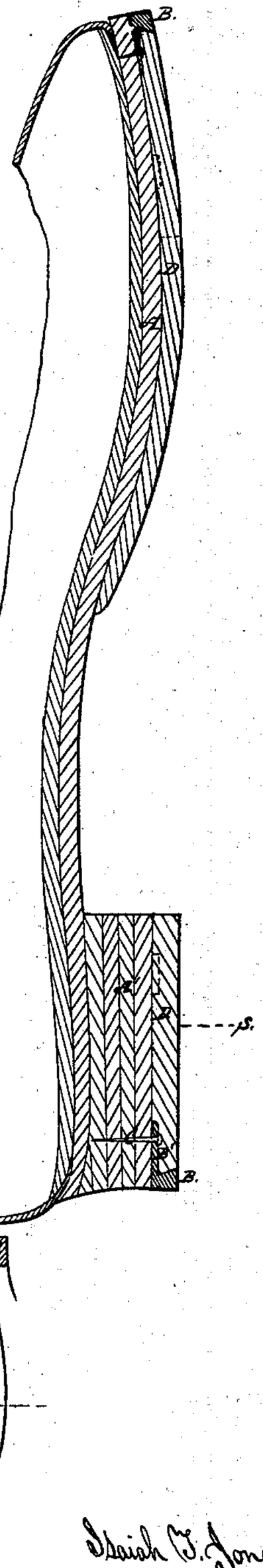


Fig. 2.



Witnesses:

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per Thomas D. Stetson. Attorney

UNITED STATES PATENT OFFICE.

ISAIAH T. JONES, OF SANDWICH, MASSACHUSETTS.

IMPROVEMENT IN BOOTS AND SHOES.

Specification forming part of Letters Patent No. **49,118**, dated August 1, 1865.

To all whom it may concern:

Be it known that I, ISAIAH T. JONES, of Sandwich, in the county of Barnstable, in the State of Massachussetts, have invented certain new and useful Improvements in Boots and Shoes; and I do hereby declare that the following is a full and exact description thereof.

My invention relates to the employment of facings or wearing-plates of iron or other hard material, sometimes known as "heel-irons" and "toe-irons."

It has been common to attach to the bottom of the sole, particularly at the heel, a strip of iron extending around the edge; but the space within this strip has heretofore been left open and liable to accumulate mud, snow, &c., to be thus transferred into the interior of dwellings. The fastenings also have been liable to become loosened after a brief period, or to present angular points and edges which tend to destroy carpets and the like.

My invention consists, first, in securing the metal strip by fastenings inserted in a thinner part or thinner parts within or nearer the center of the sole than the main bearing-strip; second, in providing spaces along the line of the fastenings, through which spaces pegs or other fastenings may pass to secure a filling of leather or the like; third, in filling the space within the bearing-strip with leather or the like, so as to exclude all foreign materials and make the surface of the sole, whether it be toe or heel, flush or even; and, fourth, in holding or aiding to hold such filling, by causing it to dovetail or otherwise lock under a portion of the bearing-strip.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation by the aid of the accompanying drawings, and of the letters of reference marked thereon.

Figure 1 is a face view of the entire bottom of a shoe. Fig. 2 is a central longitudinal section. Fig. 3 is a view of one of my heel-plates separate from the other parts; and Fig. 4 is a cross section of the bottom of a heel, on the line S S in Figs. 1 and 2, before the final lift or filling-piece is applied.

A is the sole, and A′ the heel, of a shoe in an inverted position.

B is a wearing-strip or iron piece adapted to promote the endurance of the shoe. It is beveled under on its inner edge.

B′ are thin lugs extending inward from the inner edge of the bearing strip.

B^2 are the spaces between the lugs.

C C are screws or other suitable fastenings introduced through the lugs B′.

D is a filling of leather, and E are pegs, shoe-points, or the like, driven down at proper intervals near the edge of the filling D, and passing through the spaces B^2. The edge of the filling D is beveled, as represented, to correspond with the dovetailed or counter-beveled inner edge of the bearing-pieces or heel-irons and toe-irons B. I introduce the filling D while it is moist and pliable by springing it into a dishing form. On being flattened with a hammer or otherwise it extends itself and takes firmly under the beveled edges of B.

I propose to cast or otherwise produce my heel and toe irons B in large quantities at a suitable manufactory. The shoe-maker will make the other parts of his shoes or boots in any approved manner. He will apply and properly fit the pieces B in the manner represented, taking care to observe the position of the lugs B′, so that he may avoid them in applying his fastenings E. After the pieces B have been strongly secured by the fastenings C he will apply the filling D in the manner described, and after flattening it properly will drive the pegs or points E and finish the face and edges by suitable means. The shoe is now ready for use, and the wearing-surfaces so prepared will exhibit an attractive appearence, will be no more liable to transport dirt or snow than ordinary leather shoes, and may wear a long time, by reason of the considerable thickness allowable to the bearing part B.

My irons B may be renewed at any time, by obvious means, on removing the filling D and the fastenings C.

In placing the irons upon the toe the forward part of the sole must be cut to fit to the inside of the plate D, and the plate must be placed in position and fastened before the sole is fastened.

The filling may be made of hard wood or gutta-percha, or any suitable material which is slightly elastic, but leather I consider the most desirable.

A construction which will present some of the advantages of my invention may be made by forming the parts B and D dovetailing in an opposite direction, making the plate B narrowest on its outside face, and nailing or pegging the part D around at its outer edge, thereby causing the part D to hold the part B in place, in which case the internal projections or lugs, B′, and nails C may be dispensed with.

It will be observed that I can increase the number of the lugs B′ to any extent necessary, and may widen them so as to join them into a continuous rim or lip; but it is important that they be thin, so as to leave all the wear to come on the thick portion B. I prefer to divide the thin part B′ by the spaces B^2, as represented.

I am aware that the edges of the bottoms of boots and shoes have been before provided with metallic protections in many ingenious forms, and that some of these have been filled up in the interior with a filling-piece held by screws and the like devices; but I believe that my invention possesses very clearly-recognizable advantages over any such constructions, especially in the use and renewal of the wearing parts and their adjuncts when the boot or shoe has partially worn out. The constructions known to me which approximate to my invention in their functions either involved an increased first cost or involved a renewal of a larger quantity of metal and a larger portion of the shoe in reparing. Most of such are inferior to mine in both these points. I therefore attach much importance to the fact that my facings B B′ are merely facings extending upward into the material of the heel or toe so little that their renewal involves the removal of only a lift or two, and not the destruction and making over of the whole shoe. By reason of the fact that my wearing-plate B is so constructed as to apply after the heel or toe is nearly completed, and to be renewed with little trouble, and is not secured by screws or the like through the mass of its substance, but through a thinner part or parts inside, I am able to wear the plate nearly out before the fastenings are exposed to any wear, and am better able to cover them, and defend the space against the liability to transport dirt or snow, by a single filling, D, as described. By reason of the fact that my filling D is applied so as to fit upon or over the part or parts B′ and to fill the entire space contained within B, I am able to exclude all dirt and snow cheaply, and in a manner with which shoemakers everywhere may rapidly become familiar, and which requires no screw-drivers or other tools not used in their craft. By reason of the fact that the spaces B^2 intervene to divide the parts B′ into several distinct lugs, in lieu of one continuous rim, I am able to drive the fastenings E which confine the filling D much nearer the edge, and consequently to hold the part D more effectually than would otherwise be the case. By reason of the fact that the filling D is dovetailed under the inner edge of the main or thick part B of my plate, I am able to hold the filling more effectually, in case the fastenings E are used, and even to hold it with tolerable security without any such fastenings.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

Beveling under the inner surface of the part B, so as to aid in retaining the filling D, and to allow the pegs or equivalent fastenings E to be placed very near the edge, in combination with the thin lugs or parts B′, extending inward from B under the filling-piece D, substantially as and for the purpose herein set forth.

ISAIAH T. JONES.

Witnesses:

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