EDWARD P. BRAY.

Improvement in Metallic Heels for Boots and Shoes.

No. 119,691. Patented Oct. 10, 1871.

Fig. 2.

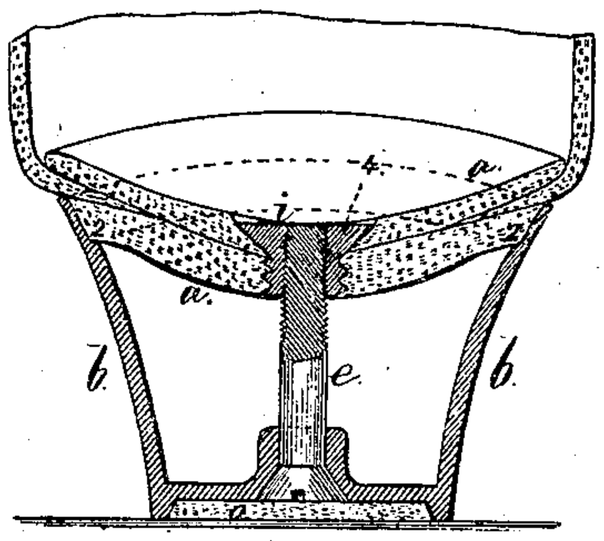


Fig. 1.

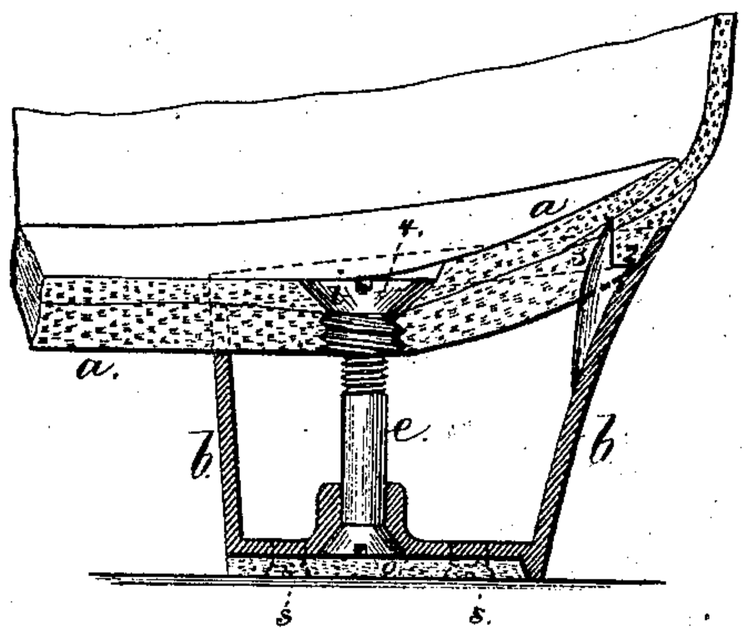
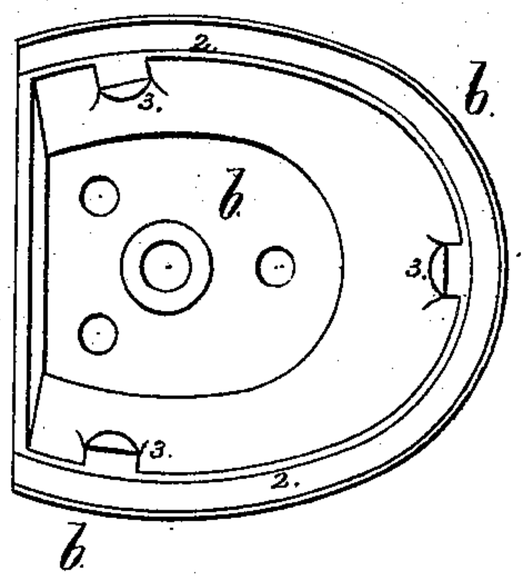


Fig. 3.



Witnesses,
Chas. A. Smith
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UNITED STATES PATENT OFFICE.

EDWARD P. BRAY, OF ELIZABETH, NEW JERSEY.

IMPROVEMENT IN METALLIC HEELS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 119,691, dated October 10, 1871.

To all whom it may concern:

Be it known that I, EDWARD P. BRAY, of Elizabeth, in the county of Union and State of New Jersey, have invented and made an Improvement in Metallic Heels for Boots and Shoes; and the following is declared to be a correct description of the same.

Heels for boots and shoes have heretofore been made of metal, but there has been difficulty in fastening them in place, or in tightening them when they have become loose from wear. My invention is made with reference to attaching the heels in the most reliable manner, and tightening the same from time to time, as occasion requires. I make use of a hollow metallic heel, with penetrating points or edges to keep the heel in position upon the sole, and a screw passing through the heel into a nut formed by a second metallic screw with a reverse or left-hand thread, said nut passing from the inside into the leather of the sole; thereby the act of screwing in the screw from the outside of the heels tends to tighten the screw-nut in the leather; thereby said nut is prevented from working loose or the screw through the heel from becoming inoperative, as has heretofore frequently been the case when the screw has passed into the leather or into a nut confined between the layers of leather.

In the drawing, Figure 1 is a section longitudinally of the heel, showing the screw-nut in elevation. Fig. 2 is a transverse section, and Fig. 3 is a plan of the metallic heel.

The sole *a* of the boot or shoe is made in any desired manner, and is adapted to the shape of the metallic heel *b*. This heel *b* is formed with flaring sides, receiving the edges of the leather upon the ledges 2 2, and with penetrating points 3 or chisel-shaped projections, to prevent the heel slipping upon the leather. The clamping screw *e* passes through the bottom of the heel into the screw-nut *i*, and this screw-nut has a conical head, 4, and a reverse or left-handed screw-thread upon the outside.

In applying this heel a hole is bored or punched in the sole *a* at the proper place, and the nut *i* screwed thereinto, and this may be done before the sole is put upon the boot or shoe. When the metallic heel is applied to the sole the screw *e* is inserted, and in screwing the same into the nut *i* said nut is, by its reverse screw, tightened in the leather, should there be any looseness; and this enables the wearer to tighten the heel at any time that it may be required. The under side of the heel may be made as a cavity for the reception of a layer of leather, *o*, the same being secured by rivets or screws *s*. This acts to deaden the sound from the concussion of the heel upon the surface walked over.

I am aware that a screw and nut have been employed, but it was necessary to hold one while screwing up the other. This I avoid by the use of a left-hand screw-thread on the nut.

I claim as my invention—

The nut *i* made with a head and a left-hand screw upon the outside, and a hole for receiving the right-hand screw *e* inserted through the metallic heel *b*, for the purposes and as set forth.

Signed by me this 26th day of July, A. D. 1871.

EDWARD P. BRAY.

Witnesses:

CHAS. H. SMITH,

GEO. T. PINCKNEY.

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