

O. UNDERWOOD.
Heels for Boots and Shoes.

No. 144,580.

Patented Nov. 11, 1873.

Fig. 1.

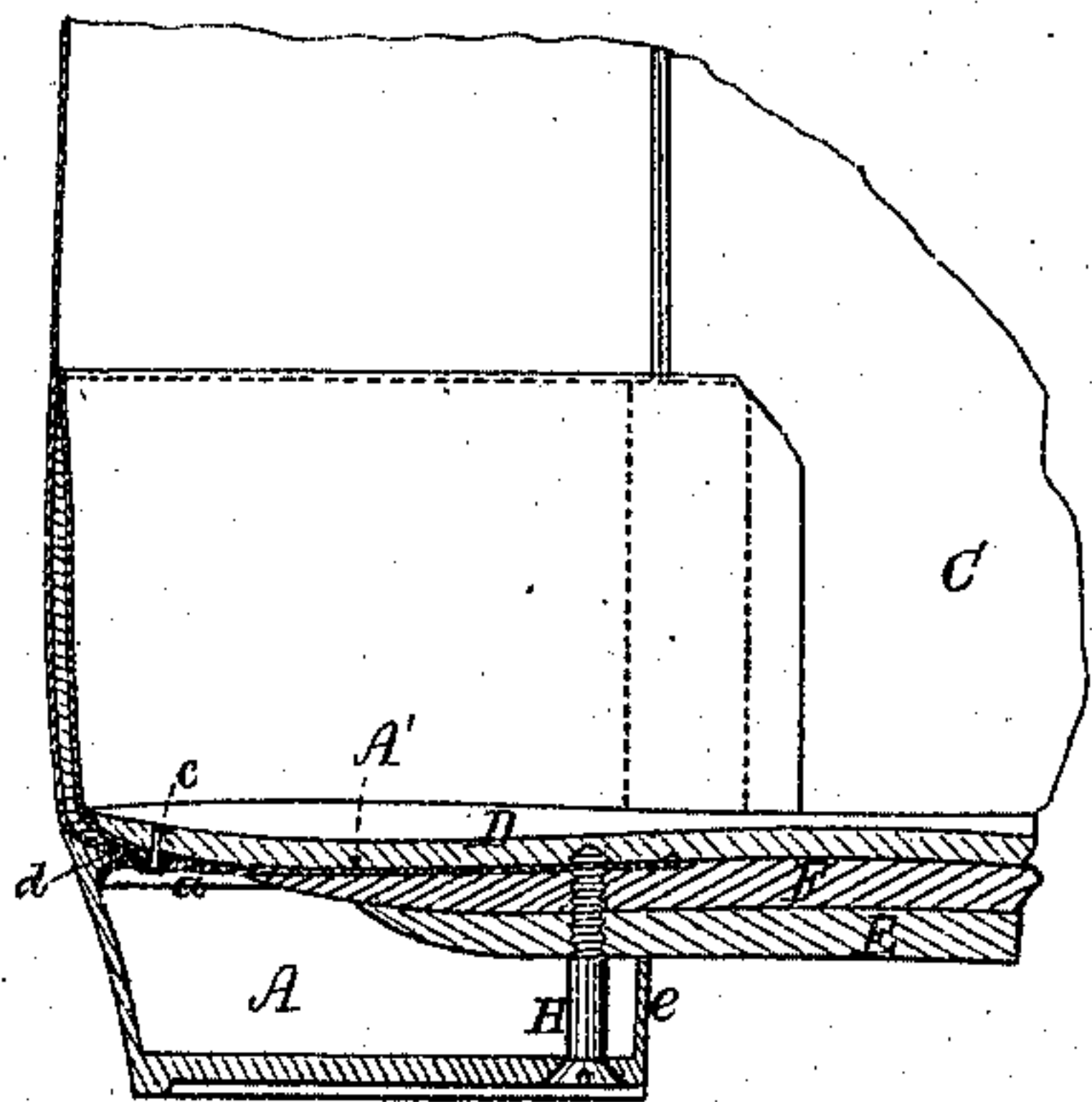


Fig. 2.

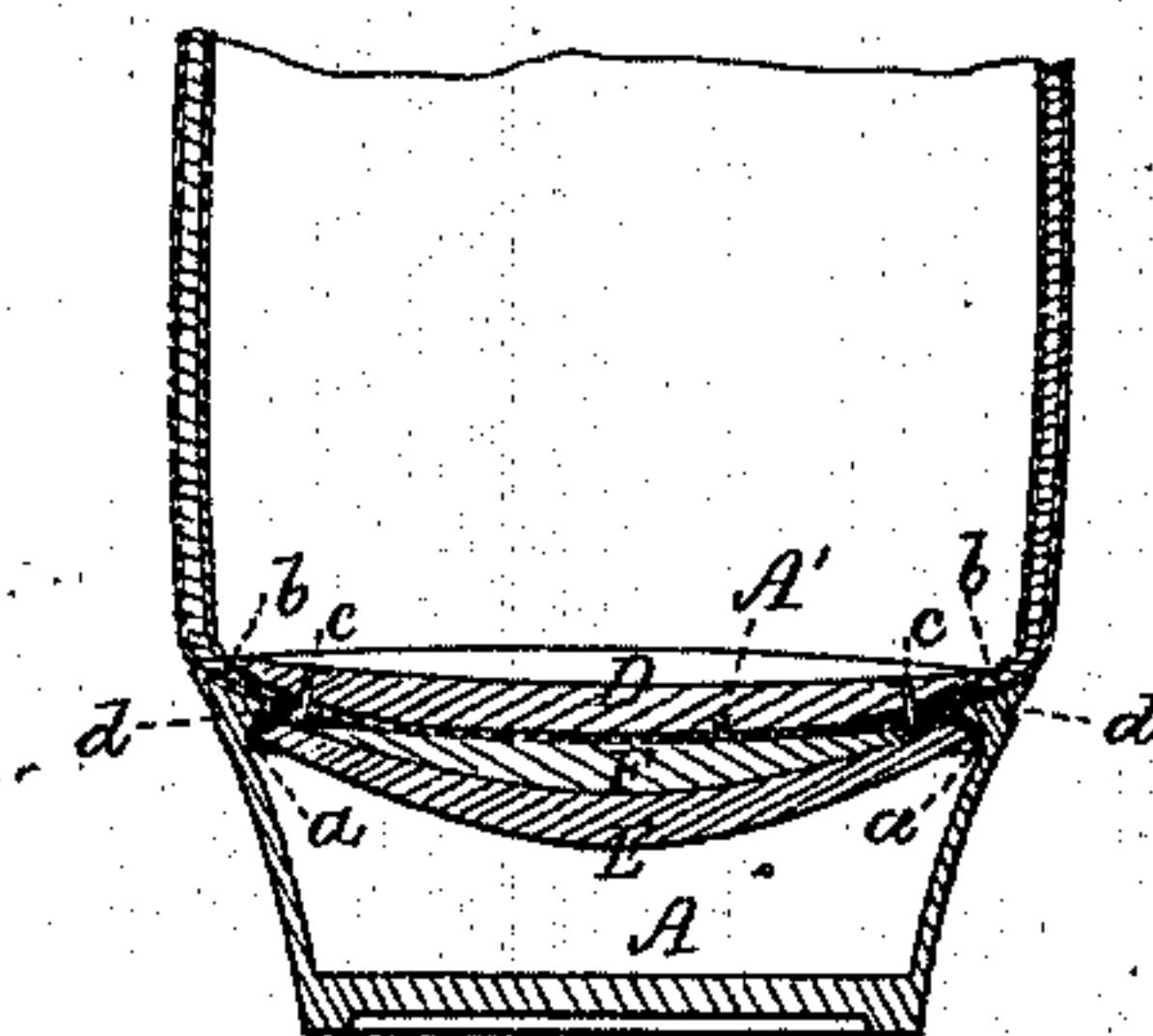


Fig. 3.

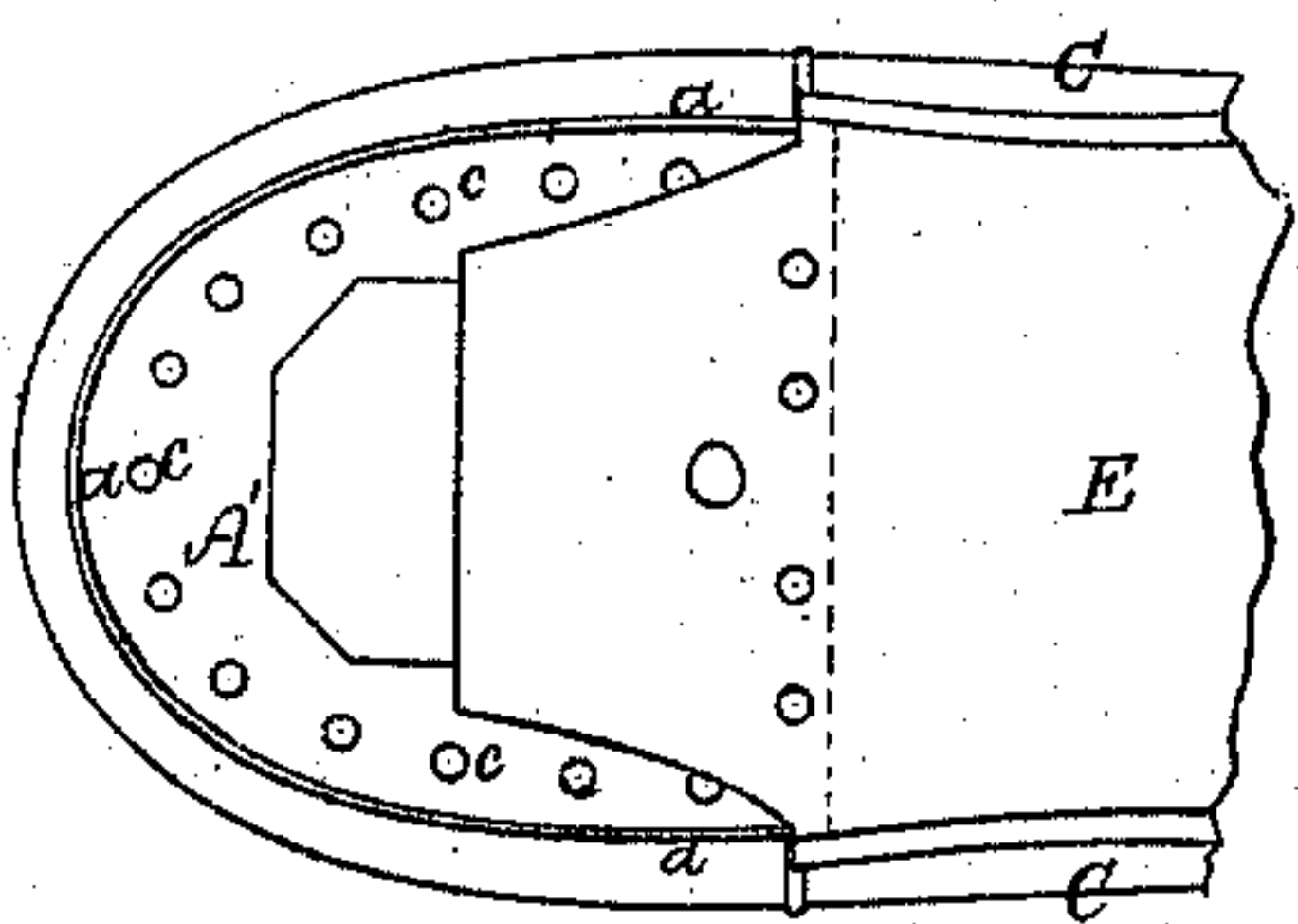


Fig. 4.

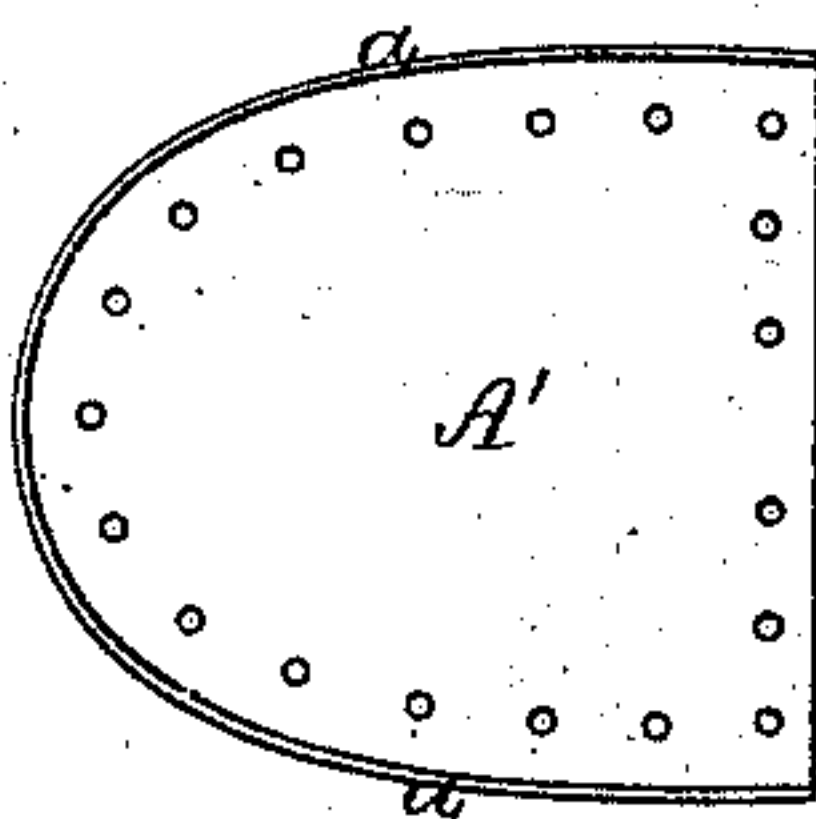


Fig. 5.



Fig. 7.

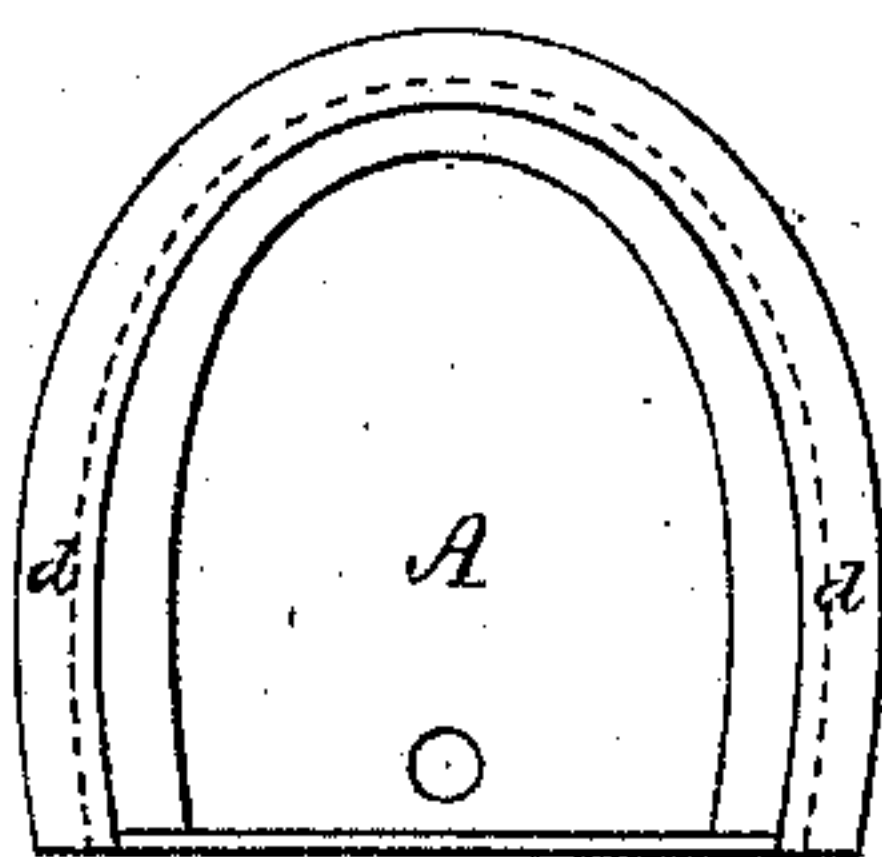


Fig. 6.

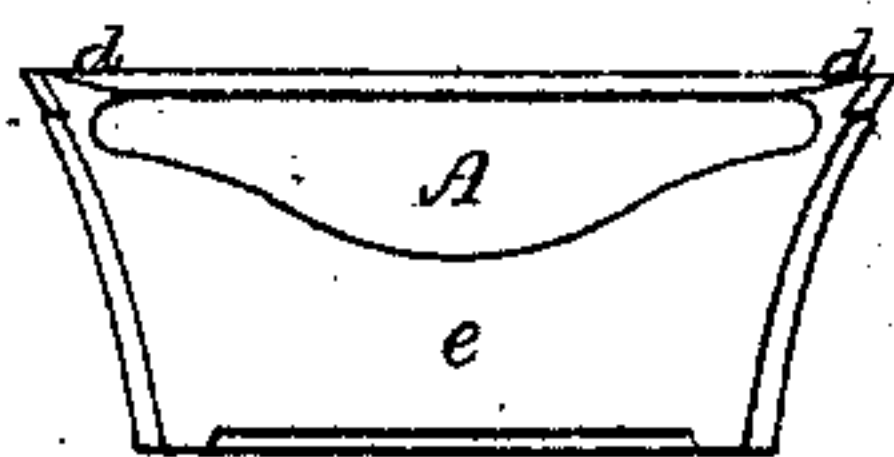
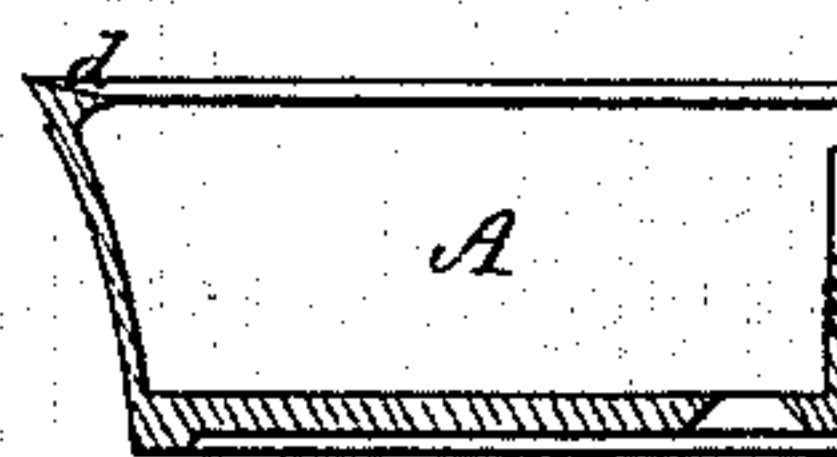


Fig. 8.



Witnesses
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UNITED STATES PATENT OFFICE.

ORISON UNDERWOOD, OF MILFORD, MASSACHUSETTS.

IMPROVEMENT IN HEELS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **144,580**, dated November 11, 1873; application filed May 9, 1873.

To all whom it may concern:

Be it known that I, ORISON UNDERWOOD, of Milford, of the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Boots or Shoes; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a longitudinal section, and Fig. 2 a transverse section, of the rear portion of a boot or shoe as provided with my invention. Fig. 3 is an under-side view of the metallic heel-holding plate and contiguous parts of the shoe upper and sole. Fig. 4 is an under-side view, and Fig. 5 a front-end view, of the metallic heel-holding plate. Fig. 6 is a front elevation, Fig. 7 a top view, and Fig. 8 is a longitudinal section, of the metallic heel that embraces and locks upon the said holding-plate.

The nature of my invention may be said to consist in a stiff metallic heel-plate, separate from the outer sole, and a flanged heel, constructed in manner and to co-operate together, and for application to and arrangement with the upper, the insole, and outer sole of a boot or shoe, all substantially as hereinafter explained; in a stiff metallic heel-plate, a flanged heel, the insole, and the outer sole, or such and the shank-stiffener, arranged and connected by means substantially as hereinafter described.

In the drawings, A denotes the metallic flanged heel, C the upper or vamp, D the insole, E the outer sole, and F the shank piece or stiffener, of a boot or shoe, the construction and arrangement of the said heel-plate and heel, and their arrangement together, and with the vamp, the insole, and the outer sole, or the latter and the shank-piece, being as represented—that is to say, the heel-plate A' is provided with a dovetailed or beveled edge or flange, *a*, turned down it, except at its front end, as shown, and it is concavo-convex to fit to the outer surface of the heel of the insole, and projects beyond such and over the overlap *b* of the vamp or upper, all as shown, such plate being secured to the insole, or such and the said overlap, by rivets *c*, going through it and them. The plate, besides performing its

function of supporting the heel, serves, with the rivets, to confine the overlap to the insole at the heel part thereof. Furthermore, the plate not only covers the overlap of the vamp or upper and the heel of the insole, but extends between such and the outer sole E, or such and the shank-stiffener F, all as represented.

The heel is to have at and around its upper edge, and projecting inward therefrom, except at the front edge of the heel, a holding-flange, *d*, to cover and fit upon and project over the heel-plate along its outer edge, in manner as shown, the whole being so that the heel may be slipped forward on the heel-plate, and backward off it, so as to engage it with or disengage it from the said plate, as circumstances may require.

In my arrangement of parts, it will be perceived that the metallic heel-plate A' extends between the insole D and outer sole, or between the insole and the shank stiffener or piece F, the outer sole, or such and the shank-piece, being projected within the heel. This enables the outer sole, where projecting within the heel, or such sole and the shank-piece, where so projecting, to be fastened, by nails or rivets, to the insole and heel-plate, and thereby to form, with the said heel-plate and insole, a strong means of holding and supporting the screw H.

My invention is designed to overcome a difficulty which results in fitting such a heel to the heel portion of a leather outer sole, which, owing to its flexibility and other incidental properties, cannot be depended on, as experience has demonstrated, for holding the heel. With my invention I dispense with such leather heel portion, and use in place of it the metallic plate, made by dies or other means to correctly fit the flanged heel.

In my heel I have no projection within it and at its back part for the outer sole to rest upon.

I make no claim to a heel-plate constructed with a recess to receive the rear end or part of the outer sole, and fixed to the insole and vamp, and applied to a heel, or otherwise made, as represented in the United States Patent No. 121,927. Nor do I claim a flanged heel made as represented in the United States Patent No. 129,369, as I dispense entirely with the outer-sole supporter arranged within and at the back

of such heel, my flanged heel being made in other respects like such patented heel. Nor do I claim the mode of constructing the heel and applying it to a shoe as represented in United States Patent No. 90,192, wherein the heel-supporter extends outside of and beyond the heel, and upon the sole, without the outer sole, or such and the shank-piece, being projected within the heel, and made to receive the connection screw or screws, as in my arrangement or improvement.

What, therefore, I claim as of my invention is as follows:

1. The flanged heel A, the plate A', the insole D, and the outer sole E, arranged and connected by means as described.

2. The metallic heel-plate A', separate from the outer sole, the metallic heel A, the vamp or upper C, the insole D, the outer sole E, and the fastening-screw H, all constructed, arranged, and combined substantially as described and represented.

ORISON UNDERWOOD.

Witnesses:

R. H. EDDY,
J. R. SNOW.