

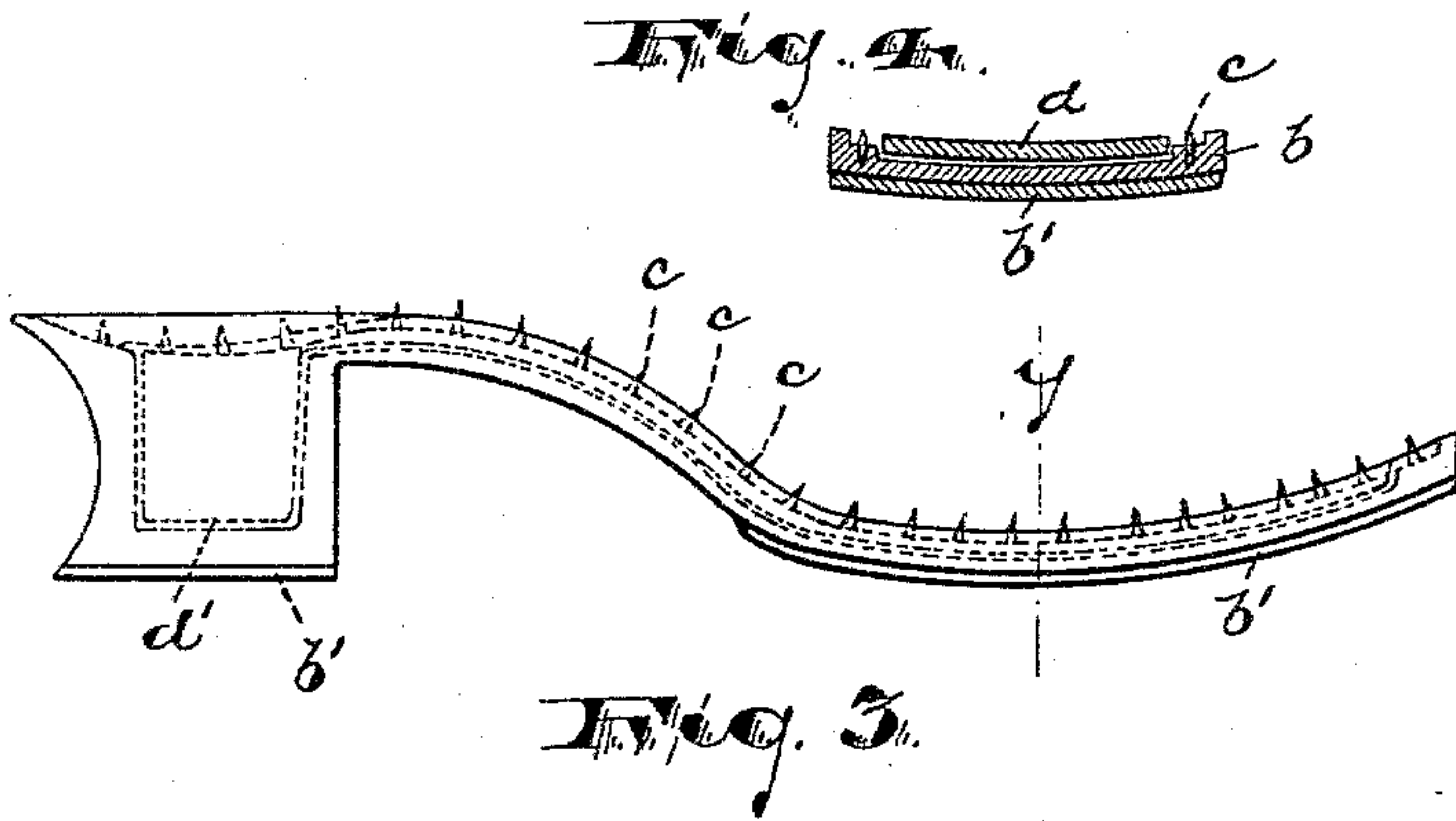
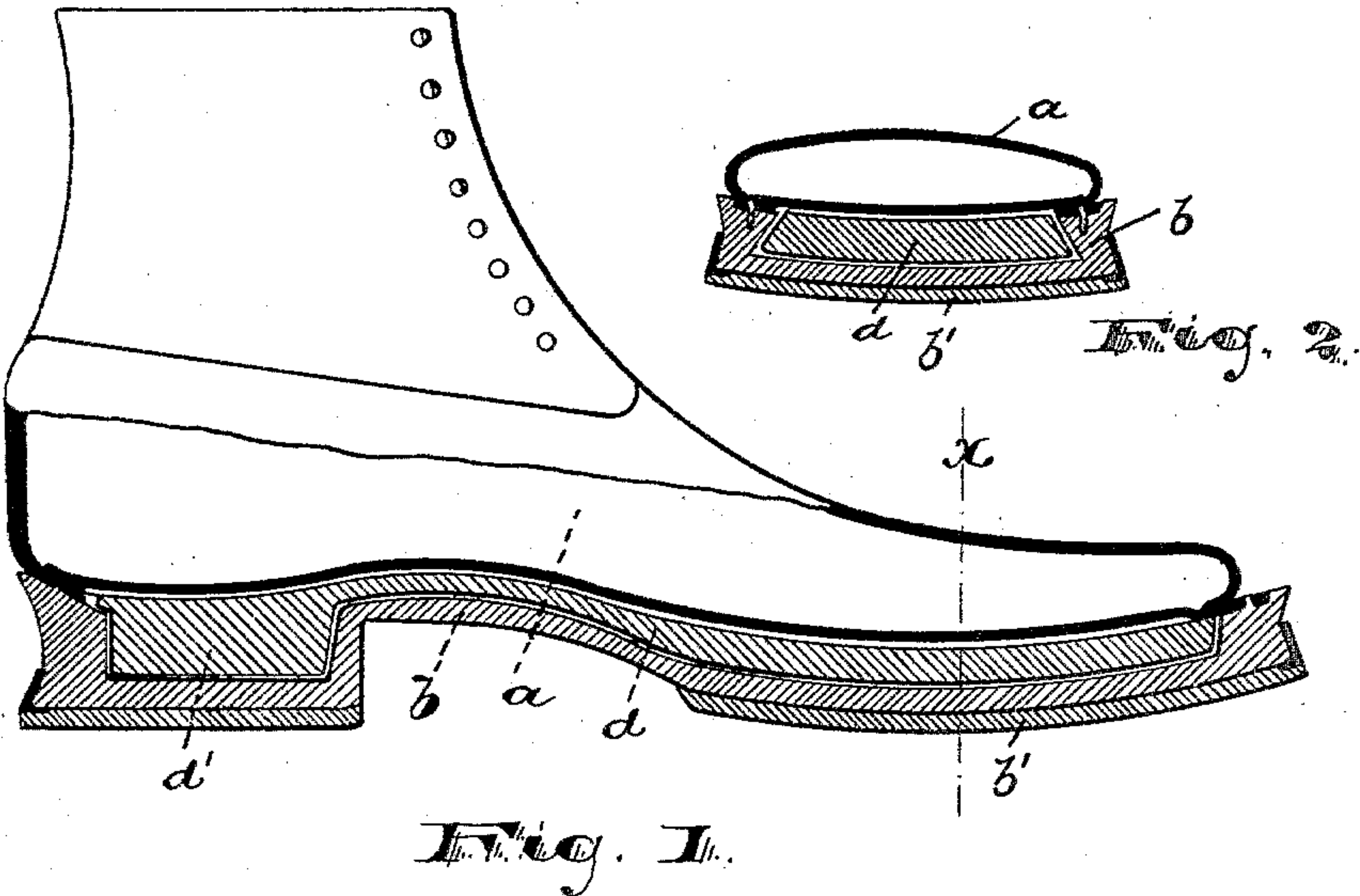
(No Model.)

2 Sheets—Sheet 1.

T. A. MOLLOY & L. KIRCHNER.
BOOT OR SHOE.

No. 597,524.

Patented Jan. 18, 1898.



WITNESSES:

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E. B. Diney

Louis Kirchner,
Thomas A. Molloy, INVENTORS,

BY *Drake & Co.*

ATTORNEYS

(No Model.)

2 Sheets—Sheet 2.

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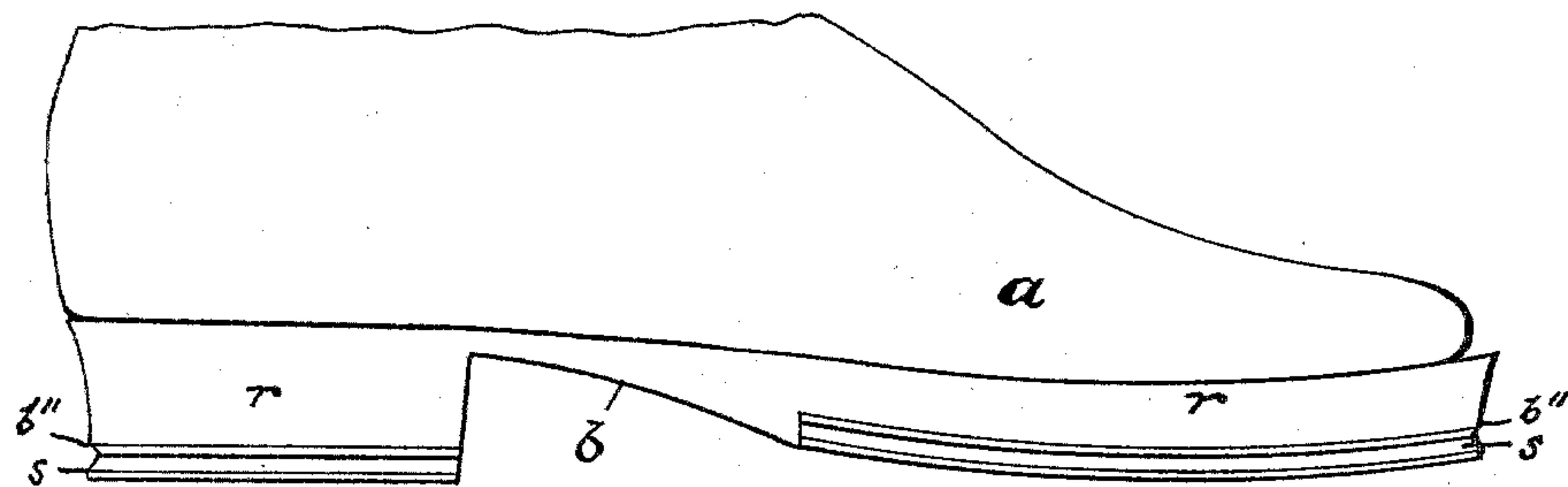


Fig. 5.

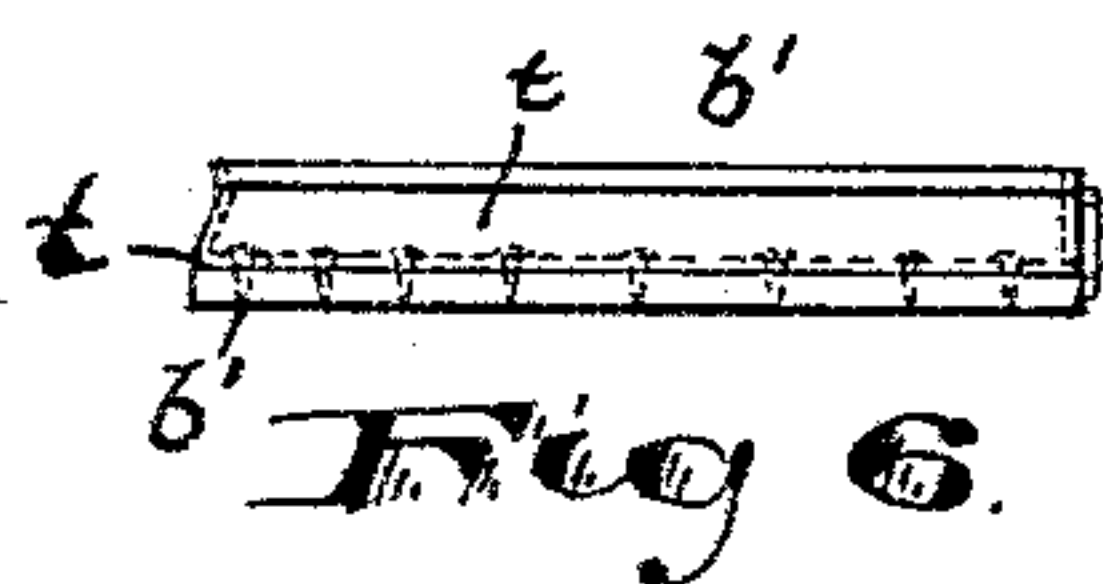


Fig. 6.

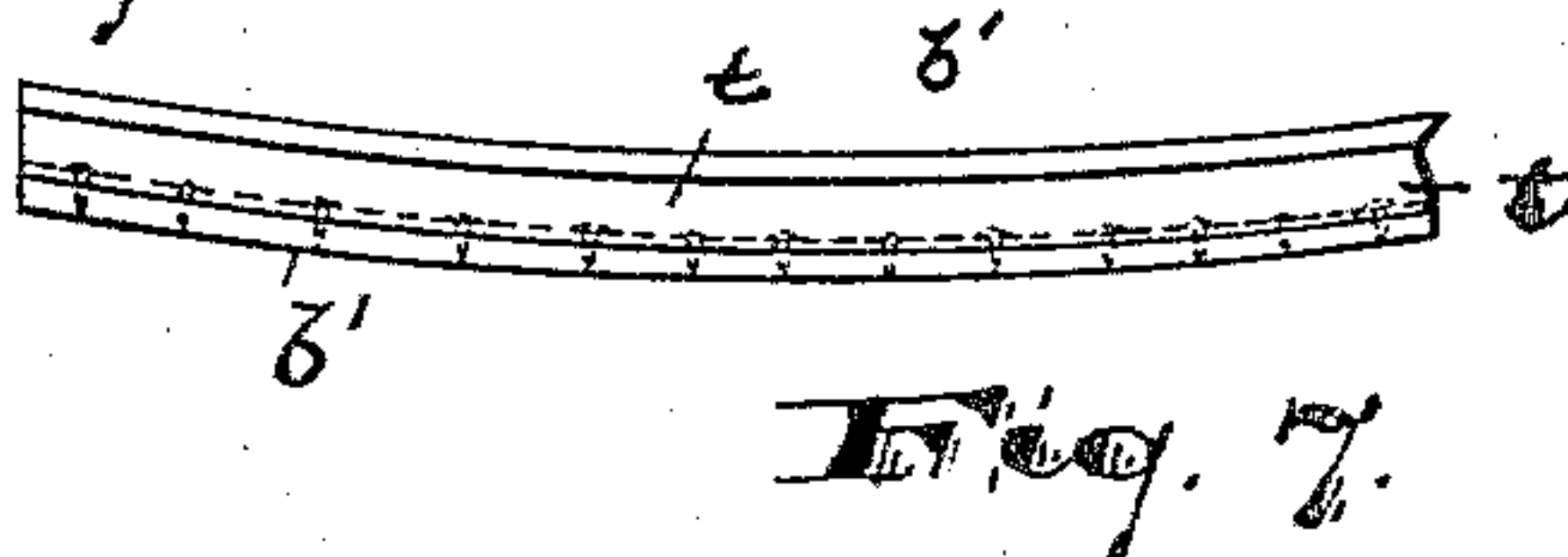


Fig. 7.

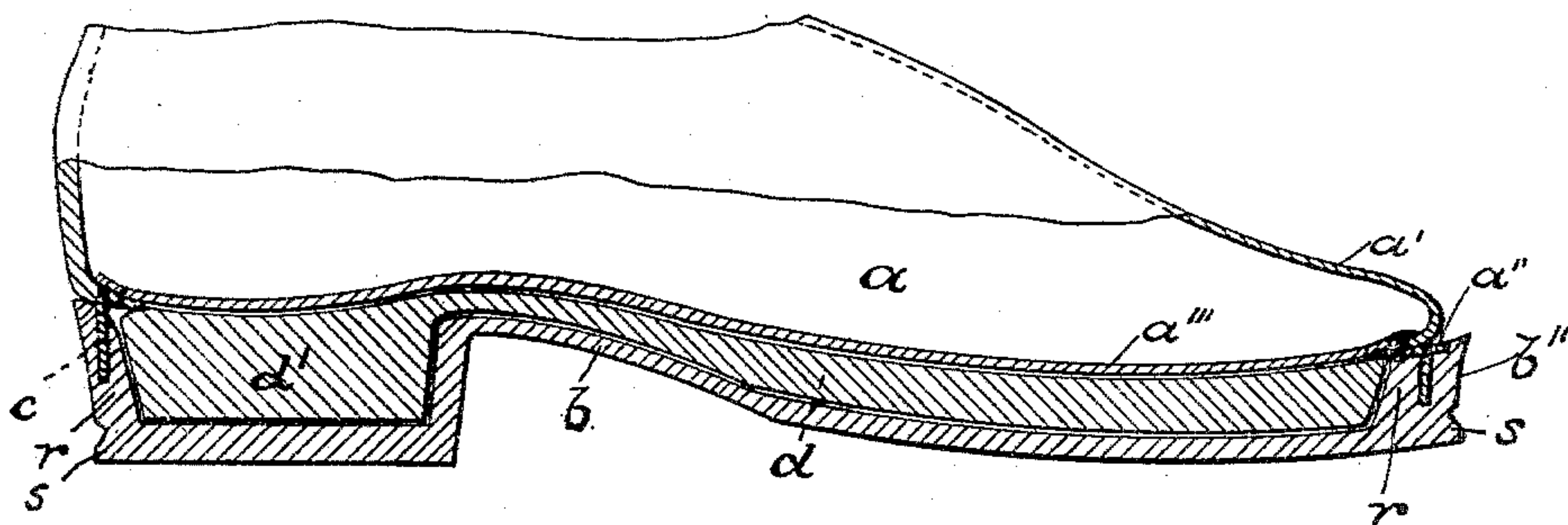


Fig. 8.

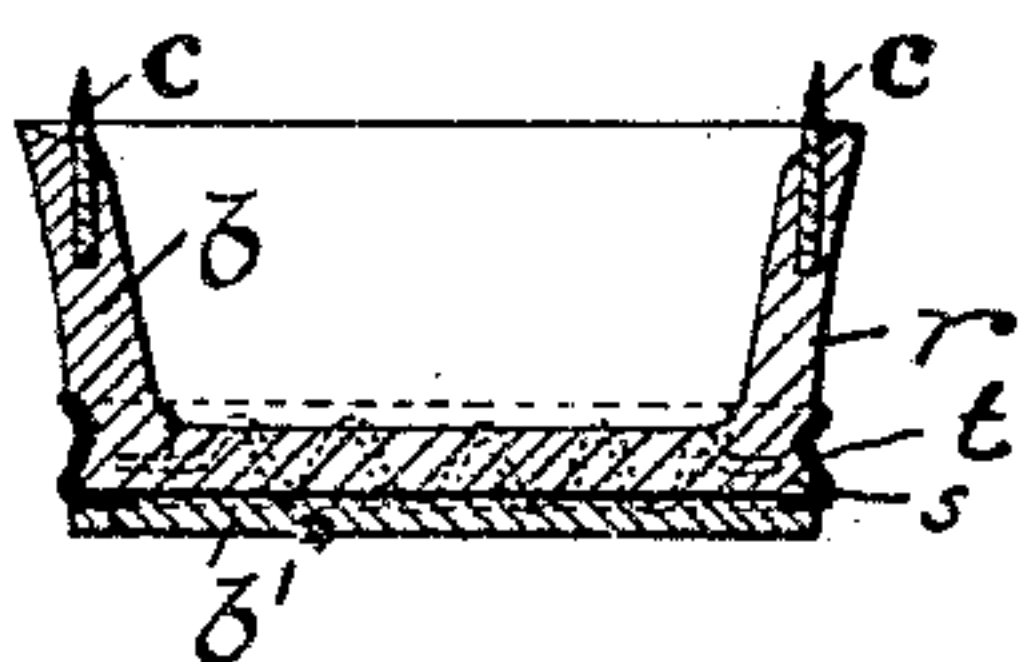


Fig. 9.

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UNITED STATES PATENT OFFICE.

THOMAS A. MOLLOY AND LOUIS KIRCHNER, OF POUGHKEEPSIE, NEW YORK,
ASSIGNORS OF ONE-THIRD TO MARTIN P. MANNING, OF SAME PLACE.

BOOT OR SHOE.

SPECIFICATION forming part of Letters Patent No. 597,524, dated January 18, 1898.

Application filed June 24, 1897. Serial No. 642,070. (No model.)

To all whom it may concern:

Be it known that we, THOMAS A. MOLLOY and LOUIS KIRCHNER, citizens of the United States, residing at Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Boots or Shoes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The objects of this invention are to provide an article of footwear adapted to be worn particularly by metal-molders, furnace-men, and others liable to tread on highly-heated bodies of metal; to provide a shoe which will not be injured or affected by such contact with said heated metal; to enable the shoe to be employed advantageously both in the foundry in contact with said metal and while walking to and from the foundry or mill or under other conditions with comfort and ease; to enable the movements of the wearer of the heavy metal soles to be cushioned when said shoes are not used in walking in the foundry or mill and thus to reduce the noise and jar in walking—as, for example, when walking to and from the foundry or mill, as above indicated; to enable the cushion to be removed with ease and facility; to secure a removable contact cushion or pad of simple structure and little cost, and to obtain other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved boot or shoe for the personal wear of molders and those employed in rolling-mills and in like situations where the person walking is apt or liable to tread upon heated bodies of metal or other matter and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views,

Figure 1 is a side elevation, partly in longitudinal section, of a shoe of the improved construction. Fig. 2 is a transverse section of the same on line *x*. Fig. 3 is a sole-and-heel portion of a shoe detached from the upper. Fig. 4 is a section thereof on line *y*. Fig. 5 is a side elevation of the shoe, showing the cushions or pads removed from the tread-surfaces of the shoe-bottom. Fig. 6 is a side elevation of the heel-tread cushion. Fig. 7 is a side elevation of the sole-tread cushion. Fig. 8 is a longitudinal sectional view showing the shoe without the cushions; and Fig. 9 is a transverse section of the heel, showing the removable pad in position.

In said drawings, *a* indicates the upper of the shoe, which may be of leather or other material and of any suitable construction. Said upper consists, preferably, of the body portion *a'*, the welt *a''*, and the lining or insole *a'''*, the last two being sewed to the body of the upper and the welt forming outwardly-projecting flanges which extend around the sides of the shoe to receive the pintles *c*, as hereinafter described. *b* indicates a sole-and-heel body portion attached to said upper in any suitable manner, but preferably by means of pintles *c*, attached to said body portion *b* in the act of casting. Said body portion consists of a single integral piece of metal, preferably aluminium, because of its lightness, impermeability, and other qualities, made in plan in the shape to conform to the foot of the wearer, as in ordinary shoes. On the upper side said body portion is made hollow to receive an interlining *d* of cork, asbestos, or any other suitable substance which is a poor conductor of heat, the heel portion of said body being deeply recessed, as shown, so as to receive a heel-pad *d'* of considerable thickness, which will serve to produce a very considerable resilience, cushioning the heel of the foot in the act of walking. Said heel-pad is composed of a layer of cork fastened to the under side of the lining, although it may be of other resilient or cushion-like material. The upper edge of this metallic casting is raised, forming a thick marginal rib or rim *r*, extending entirely around the casting both at the heel and sole parts thereof, which rib or rim forms a receptacle for the non-conduct-

ive filling above referred to. This marginal rib, being thick, as described, produces a firm and strong bedding, in which the series of pintles *c* are cast, the pintles being preferably
 5 of non-elastic steel adapted to be passed through the welt and clenched at their projecting extremities, so as to hold said welt down firmly upon the said marginal rib.

The lateral edges of the metal body flare outwardly toward the bottom, forming a keeper-
 10 ribs, over which are sprung the flanges of the removable bottom portions, cushions, or pads *b'*, adapted to be employed in walking to and from business or when there is no heated
 15 metal to injure the same. Said pads, cushions, or bottom pieces *b'* consist of leather of suitable thickness, having secured to their edges resilient flanges *t*, adapted to fit over the flaring edges of the sole and heel and be
 20 thus held firmly thereto, cushioning the tread and enabling the person walking on ordinary sidewalks to do so without producing the objectionable noise and avoiding the objectionable jar incident to such walking.

25 The edges of the body or bottom casting are provided at the upper parts with projecting marginal protecting-ribs *b''*, which serve to guard the upper edges of the flanges of the cushions, so that the latter cannot by inadvertence, accident, or otherwise be forced off
 30 the sole and heel, the said protecting-ribs *b''* conducing to a greater security of the cushions in the act of walking, as will be understood.

35 The cushions *b'*, in addition to the advantages above referred to, serve to give contact-surfaces which are not apt to slip upon the ice, snow, &c.

Having thus described the invention, what we claim as new is—

1. The combination in a shoe, of an upper, a
 40 cast-metal bottom having integral pintles for fastening said bottom to said upper, leather plates for the sole and heel of said bottom having spring-flanges for removably securing
 45 said leather plates to said bottom, substantially as set forth.

2. The improved shoe comprising a metal bottom integrally including the sole and heel, having pintles embedded therein near the
 50 outer edges, and having at said edges a flaring part to receive a flange of a pad or cushion and a guarding-rib to protect the upper edge of said flange, a cushion having said
 55 flange, and an upper held to the metallic bottom, substantially as set forth.

3. The improved metal-molder's or furnace-
 60 man's shoe, comprising a metallic bottom integrally embodying sole and heel parts, which have at their edges, keeper-ribs, and are centrally hollowed out at the upper side, said
 65 casting at the upper edges being provided with vertical ribs having pintles cast therein, an upper and insole or lining held directly upon said metal body by said pintles, and a non-conductive filling arranged between the
 70 metal and said insole, whereby heat conducted by the metal will not be freely transmitted to the said lining and foot, substantially as set forth.

In testimony that we claim the foregoing
 we have hereunto set our hands this 3d day
 of March, 1897.

THOMAS A. MOLLOY.
 LOUIS KIRCHNER.

Witnesses:

CHARLES H. PELL,
 C. B. PITNEY.