S. MILANO.

HEEL FOR FOOTWEAR.

APPLICATION FILED MAR. 6, 1907.

995,703.

Patented June 20, 1911.

Fig. 1.

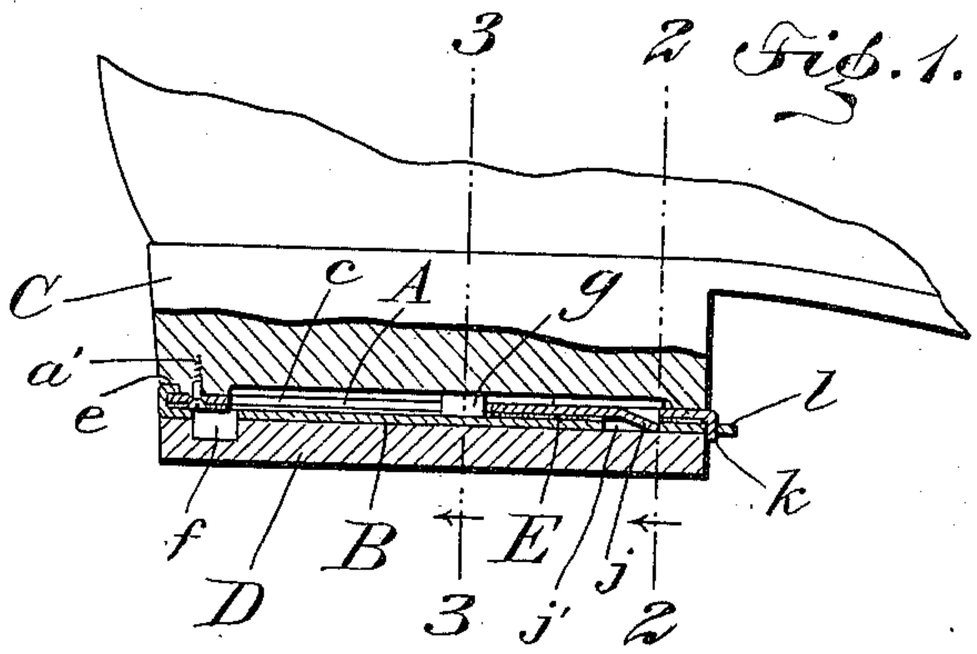


Fig. 2.

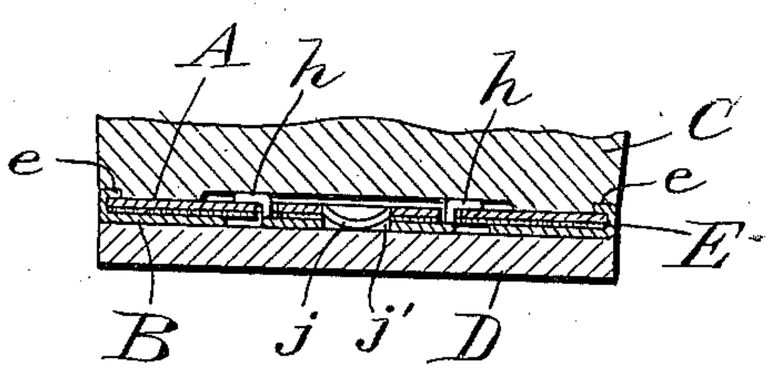


Fig. 3.

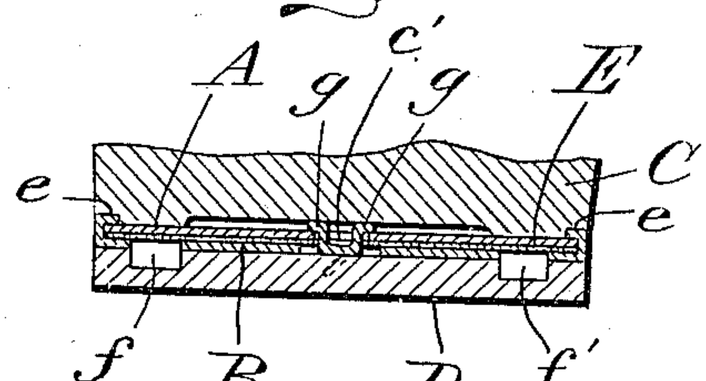


Fig. 4.

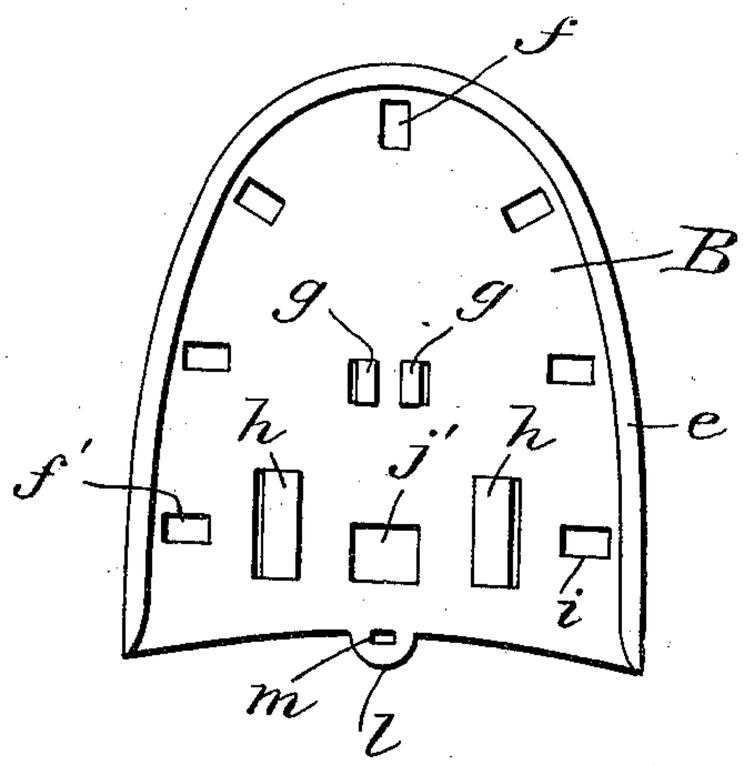
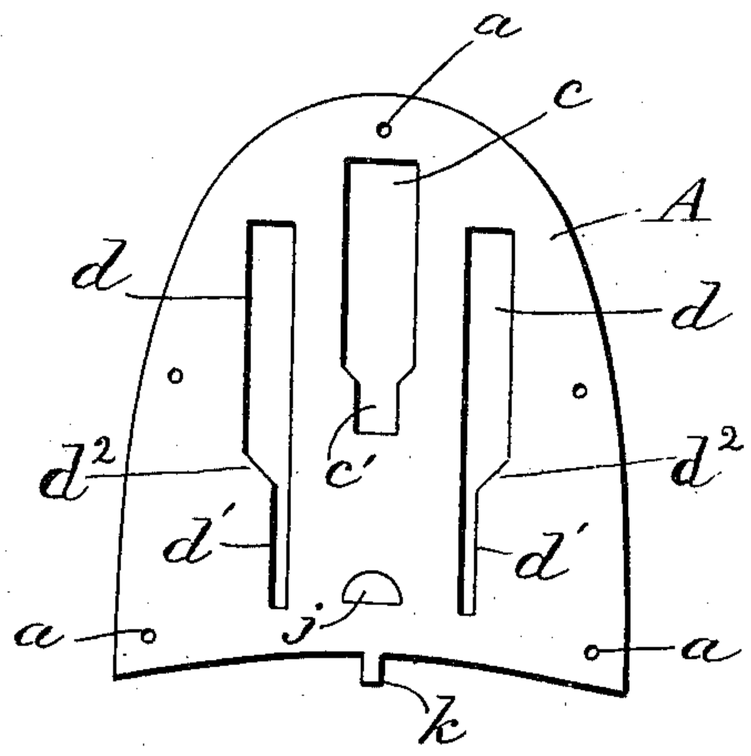


Fig. 5.



WITNESSES

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HEEL FOR FOOTWEAR.

995,703. Specification of Letters Patent. Patented June 20, 1911.

Application filed March 6, 1907. Serial No. 360,892.

To all whom it may concern:

Be it known that I, SILVESTRO MILANO, a subject of the King of Italy, having declared my intention of becoming a citizen of the United States, and residing at the city of New York, borough of Manhattan, county of New York, and State of New York, have invented a new and useful Heel for Footwear, of which the following is the specification.

This invention is a heel or sole for all kinds of foot wear, more particularly for boots and shoes.

The object of the invention is to replace a worn heel-lift or sole of a boot or shoe by a new layer of material in an easy and expeditious manner, and, further, to hold the new layer of material securely in place or against any tendency to become disconnected from the boot or shoe.

The invention enables the wearer of a boot or shoe to detach the bottom layer of a sole or heel which has worn down either in the middle or on the outer edge, and to replace the same by a new or fresh layer of material, the operations being performed without requiring the services of a skilled workman. The new layer is placed accurately in position so as to register perfectly with the body of the sole or heel, and said layer is secured so firmly that it cannot become detached in the course of ordinary wear, or should the sole or heel slip on a pavement or be struck accidentally. The layer which replaces the worn part may be composed of any suitable material, such as leather, rubber, or a suitable composition; but in using the device in connection with heels, it is sometimes desirable to use rubber as the new lift in order to produce a cushion-heel boot or shoe.

In the accompanying drawing, I have shown the invention in connection with a heel of a boot or shoe, but it will be understood that the drawings are illustrative only of the invention and do not define or limit the same.

Figure 1 is a vertical section taken through a heel of a boot or shoe in the direction of the length, said heel being constructed in accordance with the invention. Figs. 2 and 3 are vertical cross sectional views on the lines 2—2 and 3—3, respectively, of Fig. 1. Figs. 4 and 5 are plan views of the two plates for use in connection with a heel as contemplated by the invention.

A B designate members which are preferably in the form of metallic plates. As shown by Figs. 4 and 5, these plates, when used in connection with the heel, are shaped to conform to said heel, in order that they may be substantially flush with the surface of the heel. The plate A is provided with a number of apertures *a*, and when said plate is fitted to the main portion of the heel, it is adapted to be fastened or secured thereto by suitable means such as screws *a'*, the latter being inserted through the openings *a*. The plate A is furthermore provided with a longitudinal guide slot *c*, which is reduced in width at one end as indicated at *c'*. Said plate is furthermore provided with other longitudinal guide slots *d*, each having one end reduced in width at *d'* and form an inclined or cam surface d^2. The other plate B is adapted to slide on the plate A in the operation of removing a worn section of the heel and replacing the same by a new lift or wearing portion. Said plate B is provided with means for fastening a lift D thereto, and, as shown, such fastening means may consist of prongs *f f'*, the latter being punched out of the metal and bent downwardly from the plate. The plate B is provided also with guide lips *g*, which are arranged at or near the center thereof, so as to engage with the edges of the slot *c*. Furthermore, I have shown said plate B as having other guide lips *h*, which are near the inner edge of said plate and are out of line with the lips *g*, said lips *h* being arranged for engagement with the edges of the guide slots *d* of the plate A. The plate B is shown as having openings or slots *i*, which permit separate fasteners to be used for attaching the lift D to the plate B, whereby the separate fastening means and the prongs *f f'* enable said lift D to be fastened securely to the plate B. Said plate B is provided, also, with a doubled flange *e*, for the reception of the edge of the plate A, whereby the two plates may be connected firmly together at their edges.

The plates A B, when assembled, may be held from movement or displacement relative to each other by various forms of fastening devices, examples of two of which are shown by the drawings. One locking device consists of a tongue *j*, which is bent from the plate A, and is adapted to enter a slot *j'* in the plate B, said tongue being adapted to have locking engagement with

an edge of the slot *j'*. Another form of locking device is a stud *k*, which extends from the inner edge of the member A. The member B is provided with a lug *l* having an opening or slot *m*. The lip *k* of the plate A is adapted to be bent and thrust through the slot *m* of the lug *l*, thus providing a positive lock for holding the plate B against relative movement to the plate A.

The main portion of the heel is indicated by C in Figs. 1, 2 and 3 of the drawing, and in practice, the height of this portion C is somewhat less than that of an ordinary heel. The plate A conforms in shape and size to the heel C, and is fastened thereto by the screws *a'*, or their equivalents. Before fitting the plate B to the heel, the lift D is secured to one side of said plate by the prongs *f f'*, or other suitable fastenings.

To assemble the parts A B, the latter having the lift D attached thereto, the operator fits one edge of the plate B over the plate A, so that the lips *g* and *h* will engage with the slots *c d*, respectively, of the plate A, whereupon the plate B is shoved edgewise to make the lips *g h* ride in the slots *c d*, until the edge of the plate A is received within the doubled flange *e* of the plate B. As the plate B is moved into registration with the plate A, the tongue *j* snaps into engagement with the edge of the slot *j'*, thus locking the plates against movement in one direction. The lips *k* may now be thrust through the perforated lug *l* for the purpose of positively locking the two plates against accidental relative movement.

When it is desired to separate the plate B from the plate A, the operator should withdraw the lip *k* from the lug *l*, and then press the plates apart slightly to release the tongue *j* from the slot of the plate B, after which the plate B may be withdrawn by disengaging the flange *e* from the plate A, and the lips *g h* may be lifted out of the wide ends of the slots *c d* of the plate A. The plate B is thus readily detached and the worn lift D may be removed therefrom. A new plate such as B with a new lift attached thereto may be adjusted in position on the plate A, and secured thereto in the manner described, or the old plate may be provided with a new lift D, after which said old plate with its lift may be again applied to the plate A.

For the purpose of excluding water and moisture from the space between the plates, I may use a layer of material indicated by E. This material may consist of thin rubber, which is placed between the plates, so as to make them engage closely with one another, said material being slotted similarly to the slots *c d* of the plate A.

The lift D may be composed of any suitable material, such as rubber, leather or a composition consisting of a mixture of ingredients. Ordinarily a leather lift will be used in connection with the plate B, but when it is desired to provide a cushioned heel, the rubber material may be attached to or united with the plate B in any usual or preferred way.

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

1. In a heel for foot wear, a metal plate all the parts of which are in the same plane, a plurality of slots in said plate, each of which is reduced in width at one end, a second metal plate provided with a marginal turned over flange which forms a groove adapted to receive the edge portion of said first plate, said second plate being provided with lips integral therewith and adapted to be positioned within the narrow ends of the slots in the first plate and to overlap said first plate, whereby the two plates are locked together.

2. In a heel for footwear, a metal plate all the parts of which are in the same plane, a plurality of slots in said plate each of which is reduced in width at one end, a second metal plate provided with a marginal turned over flange which forms a groove adapted to receive the edge portion of said first plate, said second plate being provided with lips integral therewith and adapted to be positioned within the narrow ends of slots in said first plate and to overlap said first plate, and a layer of waterproof material retained within the grooved edge of the second plate.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

SILVESTRO MILANO.

Witnesses:
JOSEPH PASCOCELLO,
JOHN MARQUETTE.