

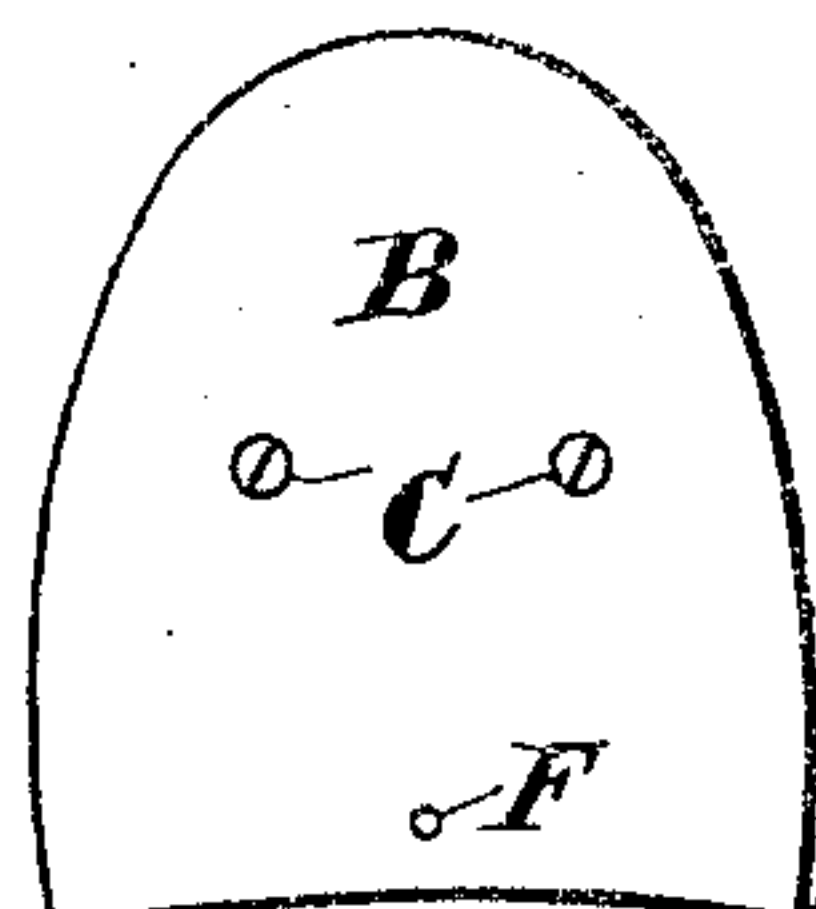
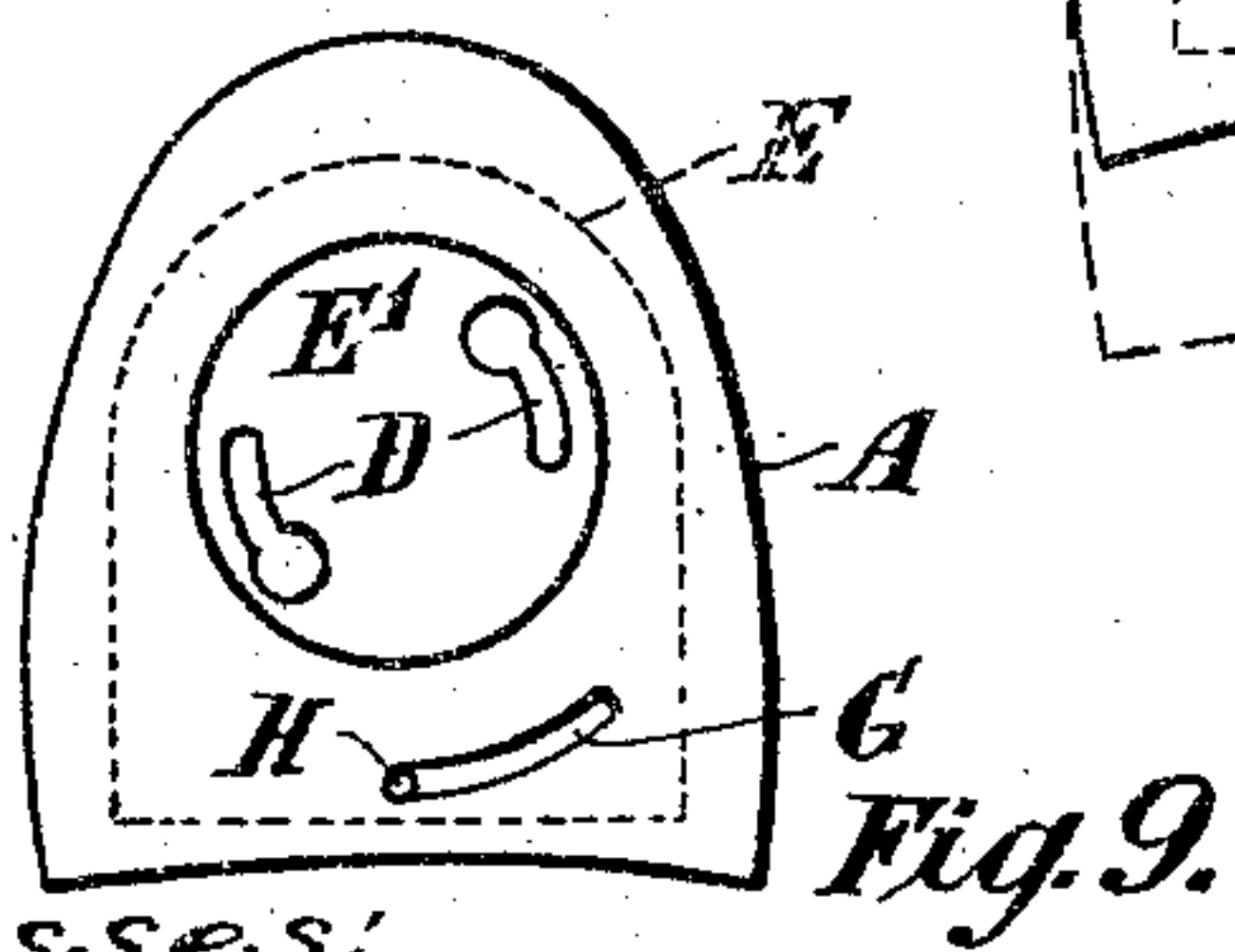
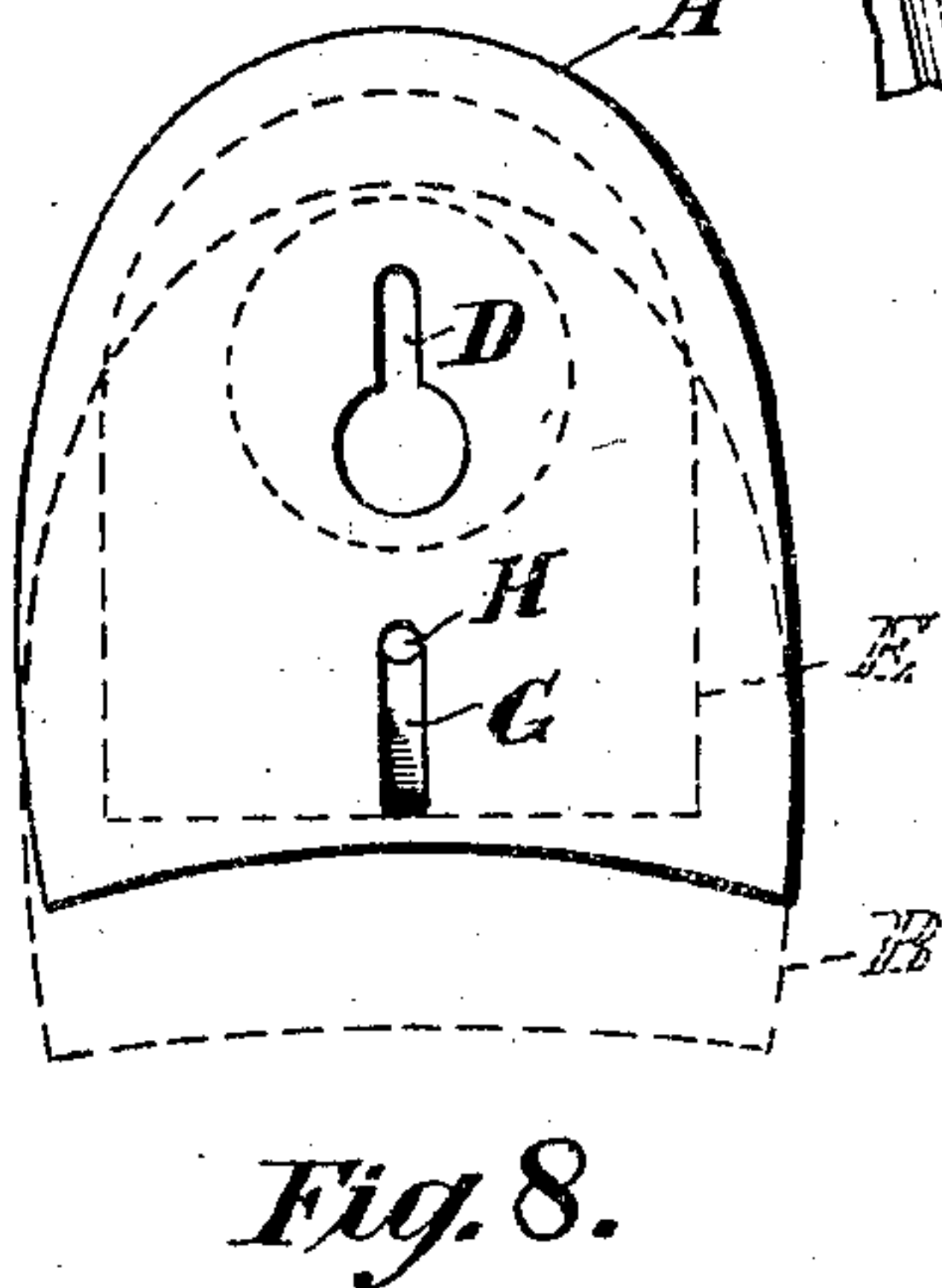
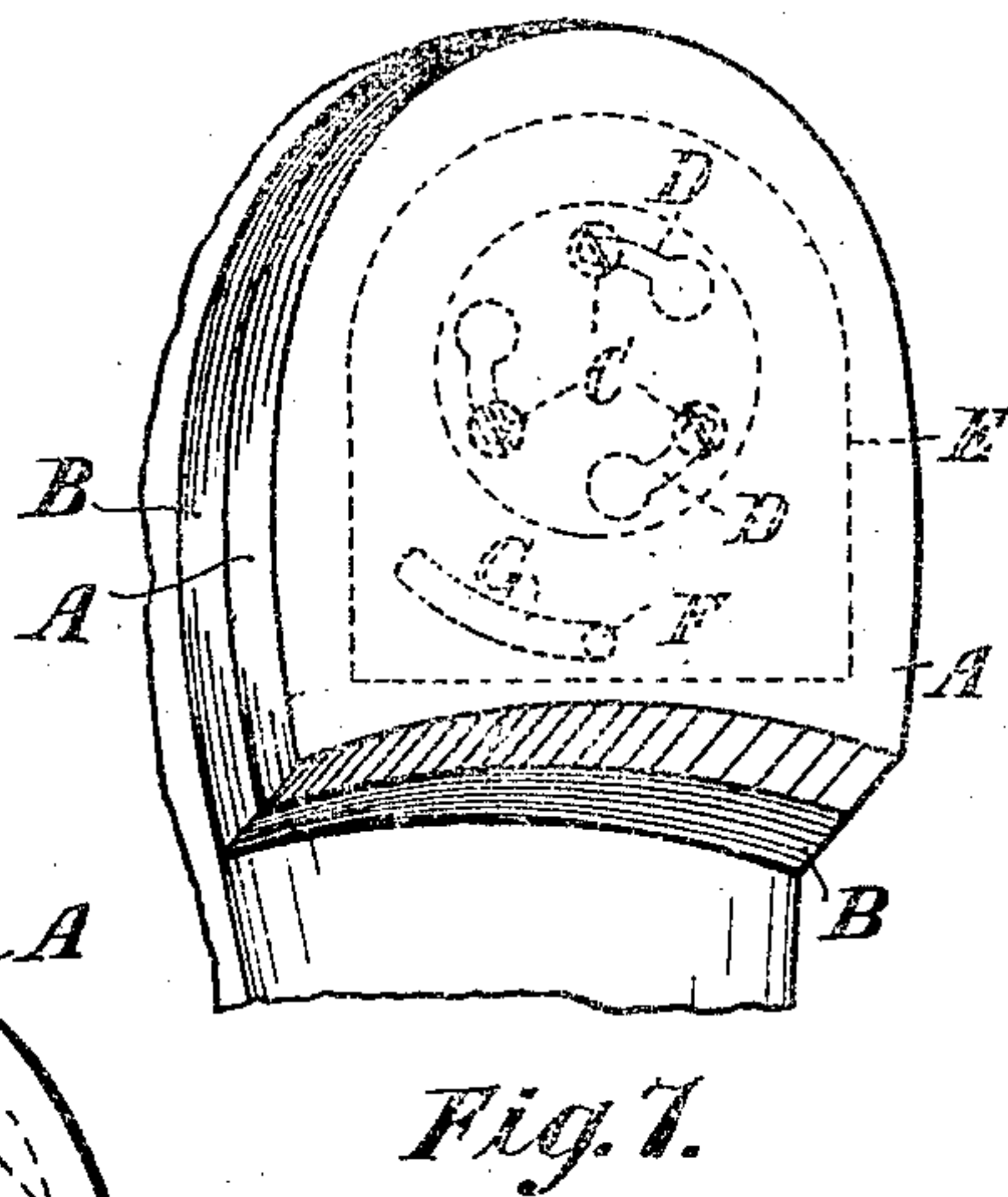
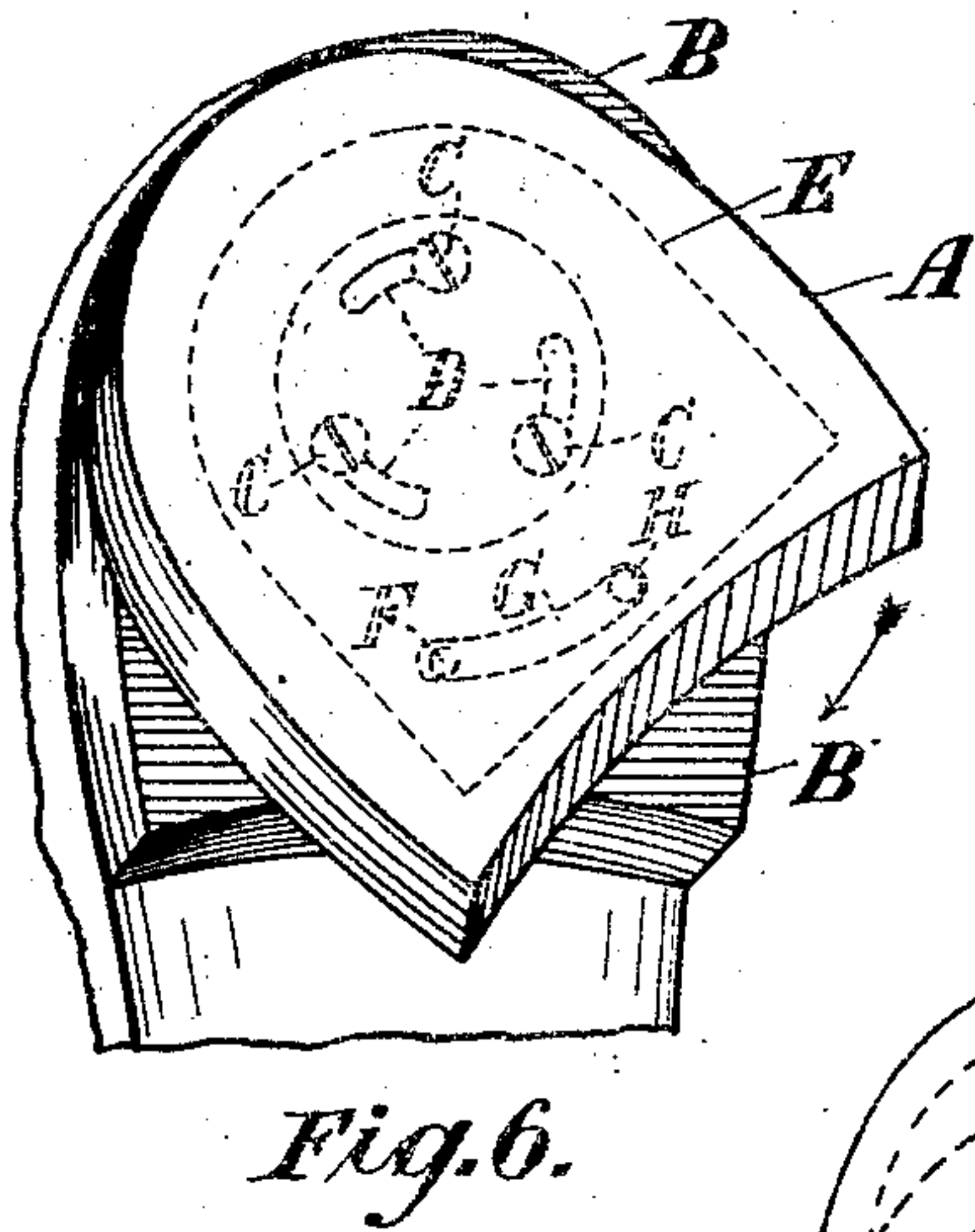
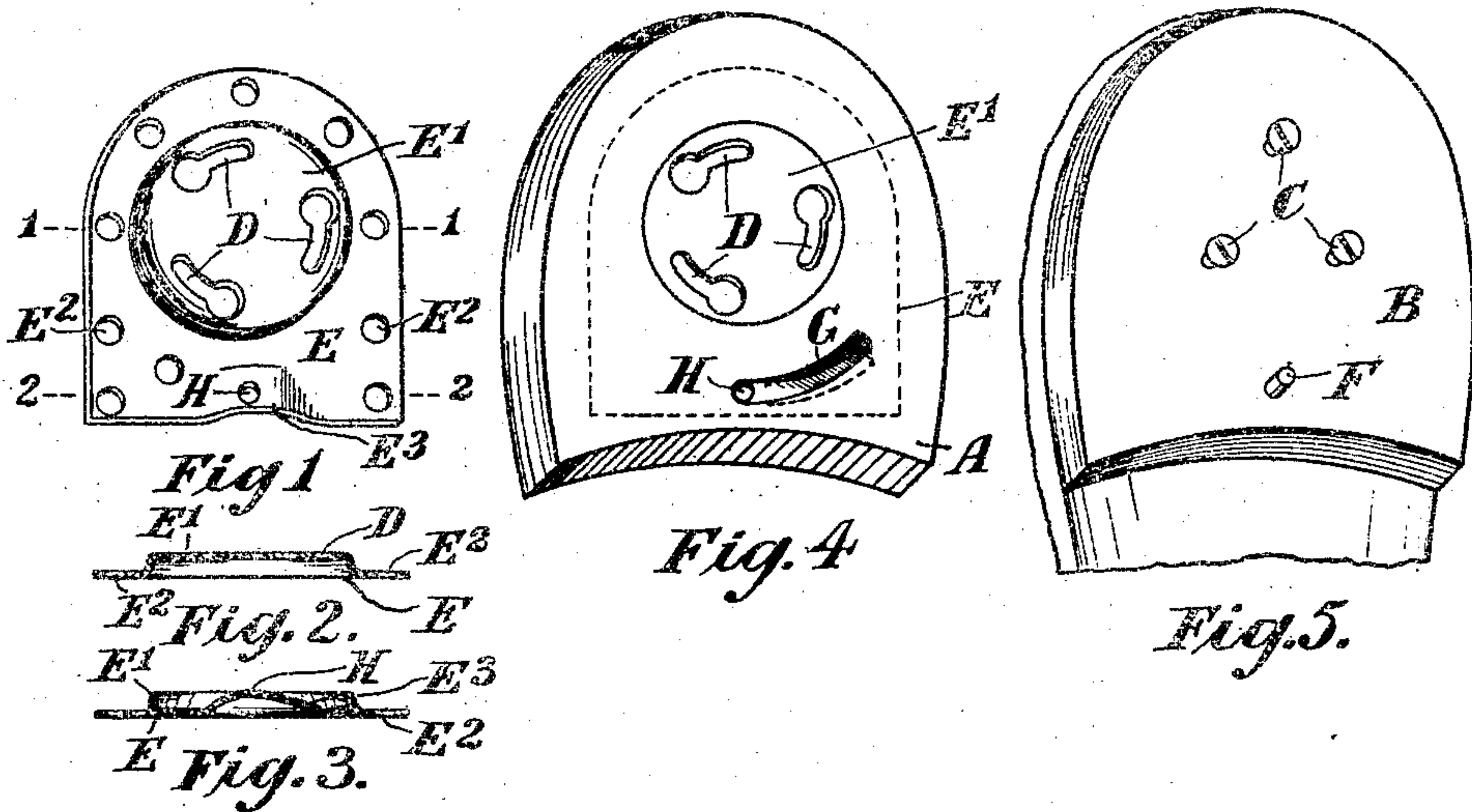
No. 895,924.

PATENTED AUG. 11, 1908.

W. WHITE.

INTERCHANGEABLE HEEL AND MEANS FOR ATTACHING THE SAME  
TO BOOTS AND SHOES.

APPLICATION FILED NOV. 26, 1907.



Witnesses:  
W. D. Kuder  
C. D. Kesler

Fig. 10. William White Inventor  
James L. Norris



# UNITED STATES PATENT OFFICE.

WILLIAM WHITE, OF NORTH FITZROY, VICTORIA, AUSTRALIA.

## INTERCHANGEABLE HEEL AND MEANS FOR ATTACHING THE SAME TO BOOTS AND SHOES

No. 895,924.

Specification of Letters Patent.

Patented Aug. 11, 1908.

Application filed November 26, 1907. Serial No. 403,901.

*To all whom it may concern:*

Be it known that I, WILLIAM WHITE, a subject of King of Great Britain, residing at No. 23 Scotchmer street, North Fitzroy, in the State of Victoria, Commonwealth of Australia, estate agent, have invented certain new and useful Improvements in Interchangeable Heels and Means for Attaching the Same to Boots and Shoes, of which the following is a specification.

This invention relates to that class of interchangeable heels and means for attaching the same to boots and shoes in which a rubber or leather pad is removably attached to the heel proper.

My invention is specially devised for interchangeable heels of rubber and will be hereinafter described as applied to heels of that material but it is not confined to such.

Several different devices have been provided for attaching these removable heel pieces. In some cases ordinary screws are used while in others projections on the pad are adapted to engage slots or recesses in the heel proper or vice-versa, springs or other devices being provided to lock the same in position. These and other like interchangeable heels necessitate certain tools or instruments being used for unlocking the said devices and removing the said pads.

The object of my invention is to provide means for attaching rubber or other pads to the heels of boots and shoes which permit of the said pads being easily disconnected from the heel proper without the use of any tool whenever it is desired to change the pad from one heel to the other or to attach a new one. I accomplish this object by providing means for attaching the said pads to the heels of boots and shoes consisting of one or more projections having enlarged heads upon the heel proper engaging slots in the heel pad (or vice-versa) in combination with a stationary pin in the heel proper engaging a hole in the heel pad for preventing the pad from moving laterally and thereby locking the parts together, the spring of the pad itself being utilized for disconnecting.

In order that my invention may be better understood I will now proceed to describe the same by reference to the accompanying sheet of drawings in which:—

Figure 1 is a view of the steel or other plate which is molded into the rubber pad. Fig. 2 is a section of the same taken on the

line 1—1. Fig. 3 is a similar section on the line 2—2. Fig. 4 is a perspective view of a heel pad showing the steel plate molded or formed therein. Fig. 5 is an under view of the heel proper showing the screws or other projections having enlarged heads for fixing the pad thereto. Fig. 6 is a perspective view showing the application of the pad to the heel proper at the commencement of the operation of fixing the same thereto. Fig. 7 is a similar view showing the heel pad fixed in position. Fig. 8 is a view of a modification of my invention having only one slot engaging only one screw or projection. Figs. 9 and 10 show a further modification in which two slots engaging two screws or projections are used being adapted to similar sizes such as those used for ladies' foot wear.

A is the heel pad formed preferably of rubber and B is the heel proper to which the said pad A is removably attached. For this purpose the heel proper B is provided with one or more projections having enlarged heads adapted to engage slots formed in the upper face of the heel pad A. These projections having enlarged or extended heads are preferably formed by screws C being driven home until the head and a small portion of the shank are left exposed.

The heel pad A is formed with a metal plate E molded or otherwise formed therein having slots D as shown. These slots D in the plate E are formed with enlargements at one end so that the heads of the screws or projections may pass therethrough while the remaining portions of the said slots D are of such a size as to only accommodate the shanks of the said screws or projections C. The slots D in the plate E are arranged preferably as segments of the same circle and may be either three in number (as shown in Figs. 1 4 and 6) or two in number (as shown in Figs. 9 and 10).

The screws or projections C in the heel proper B are placed in a corresponding position so that they may all engage the enlarged portions of the slots D at the same time when the heel pad A is being attached and that when the said pad A is turned or moved the heads of the screws or projections C pass under the plate E and securely lock the heel pad A to the heel proper B. For this purpose the plate E is formed with a domed or raised portion E' within which the slots D are cut. The plate E is further pro-



vided with a number of holes or perforations  $E^2$  so that when molded or otherwise formed into the rubber heel pad A it is securely held in place. In molding the plate E into a rubber pad A the domed or raised portion  $E'$  is formed flush with the upper surface of the pad and the space beneath the said domed or raised portion  $E'$  may be partially filled with rubber leaving only enough space for the heads of the screws or projections C to pass through the slots D and under the plate E. When the plate E is built into a leather or other like pad it is similarly formed with the raised or domed portion  $E'$  flush with the upper face.

For the purpose of locking the screws or projections C within the slots D I provide a pin or further projection F arranged preferably at the center of the breast of the heel proper B adapted to engage an inclined recess or race G in the heel pad A. For this purpose the plate E is preferably arranged with an inclined portion  $E^3$  at the forward end having a hole H in the center and at the highest point of the inclined portion  $E^3$ . In molding the rubber or other pad A upon the plate E a portion is cut away to form a race or recess G with the inclined portion  $E^3$  of the plate at the bottom thereof and the hole H at the upper end. When the slots D are made as segments of a circle the race or recess G is similarly a segment of a circle the center of which is the same as that of the slots D. Instead of forming the metal bottom of the inclined race or recess G integral with the plate E a separate plate or washer may be provided.

In attaching a heel pad A to the heel proper B the heads of the screws or projections C are passed through the enlarged portions of the recesses D with the pin F engaging the lowermost portion of the inclined recess or race G as shown more particularly in Fig. 4. By turning the heel pad in the direction as shown by the arrow in Fig. 6 the heads of the screws or projections C pass underneath the plate E and the pin F rising in the inclined race or recess G lifts the heel pad A until the said pin F engages the hole H when the spring of the rubber causes the pad A to lie flat upon the heel proper B. In this way lateral movement is prevented and the heads of the screws or projections C are maintained beneath the plate E and the pad A and the heel proper B are securely locked together. By lifting the breast portion of the heel pad A until the pin F is out of engagement with the hole H and turning the pad A with the pin F sliding into the lowermost portion of the inclined recess or race G the pad A may be easily removed therefrom.

In the construction according to Fig. 8 one slot D only is provided with one corre-

sponding screw or projection, the inclined recess or race being formed in a straight line therewith. The heel pad is attached thereto or removed therefrom by a movement in a straight line, preferably longitudinal, as shown.

With interchangeable heels for boots and shoes formed according to my invention the heels may be attached or removed at any time without the use of any tool or other instrument and when worn to any extent the heel pads may be transposed from one boot or shoe to the other or fresh ones replaced as may be required.

I claim:—

1. In an interchangeable heel and means for attaching the same to boots and shoes, the combination with the fixed heel proper provided with headed projecting means within the body thereof and a pin projecting outwardly therefrom near the breast, of a heel pad having a slotted plate to receive the headed projecting means and also formed with a central opening at its inner end, the pad being also formed with an inclined race adjacent to and forming a guide toward the said opening to cooperate with the pin projecting outwardly near the breast of the fixed heel proper.

2. In an interchangeable heel and means for attaching the same to boots and shoes, the combination with a fixed heel proper provided with a plurality of projections having enlarged heads and a pin extending outwardly therefrom near its breast of a heel pad having a plate secured thereto provided with a dome in which a plurality of curved key-hole slots are formed and an opening at its inner end, the pad having a race cut therein to receive the said pin and guide the latter to the opening in the plate, the key-hole slots in the dome of the plate receiving the projections and heads.

3. In an interchangeable heel and means for attaching the same to boots and shoes, the combination with the fixed heel proper provided with headed projecting means within the body thereof and a pin projecting outwardly therefrom, the said pin being without a head, of a heel pad having a slotted plate secured thereto to receive the headed projecting means and provided with a central opening to receive the pin, the pad also being formed with an inclined race adjacent to and forming a guide toward the said opening.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM WHITE.

Witnesses:

CLEM A. HACK,

ANNIE ROXBURGH.