June 10, 1930. F. GENTILE ET AL 1,762,170

REMOVABLE TOP LIFT FOR SHOES

Filed June 6, 1929

Fig. 1

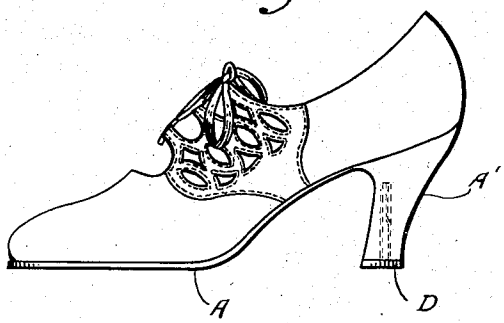



Fig. 3

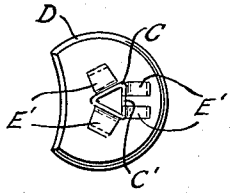



Fig. 4

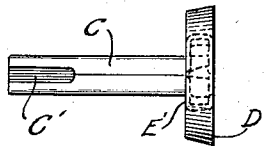



Fig. 7

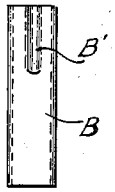



Fig. 2

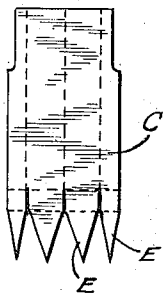



Fig. 8



Fig. 5

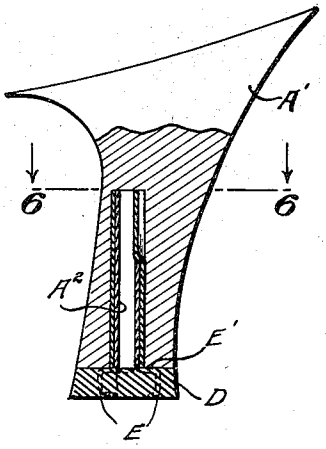



Fig. 9

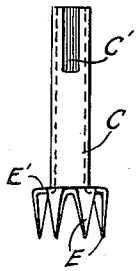
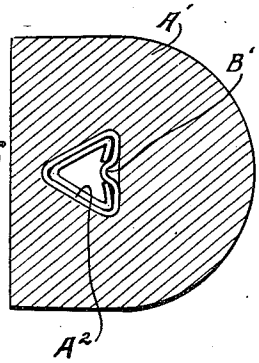



Fig. 6




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# UNITED STATES PATENT OFFICE

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## REMOVABLE TOP LIFT FOR SHOES

Application filed June 6, 1929. Serial No. 368,746.

Our invention relates to heels for ladies' shoes.

The object of our invention is to provide a heel of the type commonly known as a "French heel", with a removable lift portion which may be made as a separate article of manufacture, and which when in use in the heel serves to strengthen the heel thruout its length.

Referring to the drawings which form a part of this application,

Fig. 1 is a side elevational view of a lady's shoe in which our device is indicated in dotted lines in the heel.

Fig. 2 is a sheet of metal such as brass, formed by a die as shown, which is afterward formed by bending to the shape shown in Figure 9.

Fig. 3 is a plan view of the lift with a shank portion attached thereto.

Fig. 4 is a longitudinal view of the lift and shank and disclosing the side in which the abutting edges of the blank and slot are located.

Fig. 5 is a vertical sectional view thru a portion of the heel, bottom lift, and metal portions of the device.

Fig. 6 is a cross sectional view of the heel on line 6—6 of Figure 5 disclosing the upper end of the lift holding device, the drawing being made on an enlarged scale.

Fig. 7 is a vertical view of the exterior of the lining or socket portion of our device.

Fig. 8 is a plan view of the part shown in Figure 7.

Fig. 9 is a vertical view of the shank portion of the device.

A— indicates a lady's shoe having a heel A'— of the type above referred to.

The heel A'— is provided with a deep bore $A^2$— formed triangular in cross section, and extending nearly to the top of the heel and located therein substantially as shown.

Fitted firmly into and extending its entire length into the bore $A^2$— is a metal lining portion B— which serves as a socket for the shank C— and also serves as a strengthening column for the heel, preventing it from breaking easily across its narrowest section which it crosses. This lining portion provides a smooth inner surface for frictional engagement with the outer surface of the shank portion C, and also is provided with an inwardly extending U shaped depression B'— which serves as a wedge which extends into the slot C'— of the shank C— and forces the side walls in close frictional engagement, which serves to hold the shank in position in the socket lining B.

Offset from and formed integral with the shank C— are clamping portions adapted to pierce the leather lift element D— and bend therein as shown in dotted lines in Figures 4 and 5— to hold the lift to the shank C—, and by this construction the clamping portions E—E—E— etc. depend from a laterally extending flange portion E'— which rests against the under side of the heel adjacent the bore $A^2$— and serves as a base-plate which prevents the shank C— from being driven upward above its pre-determined position in the heel. This base plate E'— is formed of a number of branch parts, corresponding to the number of clamping points E—E— etc. used in the construction, and when it is desired to remove the shank C together with the lift D—, a knife edge may be inserted between the lift and shoe heel to rest over the plate or projection E'— and serving as a wedge, the lift may be easily removed together with the shank C—.

By making the shank and lining triangular in cross section, the shank cannot rotate in the heel and the parts are more cheaply and easily made.

It will be observed that the shank portion C— and lining portion B— together with the lift, may be made as a complete article of manufacture in condition to be placed on a heel that has been provided with a bore such as $A^2$— and that the width of the shank is about one third that of the heel thru its narrow width portion, and that the shank is four or five times as long as its width, thereby providing a large frictional area between the wood of the heel and the outer sides of the lining for strong frictional engagement and also a large area of frictional contact

between the outer wall of the shank C and inner wall of the lining B—, and that the edge portions of the walls forming the slot C'— are pressed outward to bind the shank C— firmly in contact with the lining sleeve when in its proper position therein.

It will be also observed that there are but two pieces which co-act to provide the device, and that being made of sheet metal, they are light in weight, cheap to make, and strong and durable for the purpose designed.

The lift D— may be made of leather or rubber, or of any other material suitable for the purpose.

Having thus described our invention we claim as new:

A shoe heel of the character described having a bore of irregular cross section extending over half the length thereof, a sleeve fitted in said bore and extending substantially the length thereof and having a projecting portion extending toward the centre thereof to serve as a wedge, and a shank portion fitted in said sleeve and having its upper end slotted to engage said projecting portion of the sleeve and expand the shank, and means carried by said shank portion adapted to hold a lift to the bottom end of the heel.

In testimony whereof we have affixed our signatures.

FRANK GENTILE.
FRED MACCARONE.