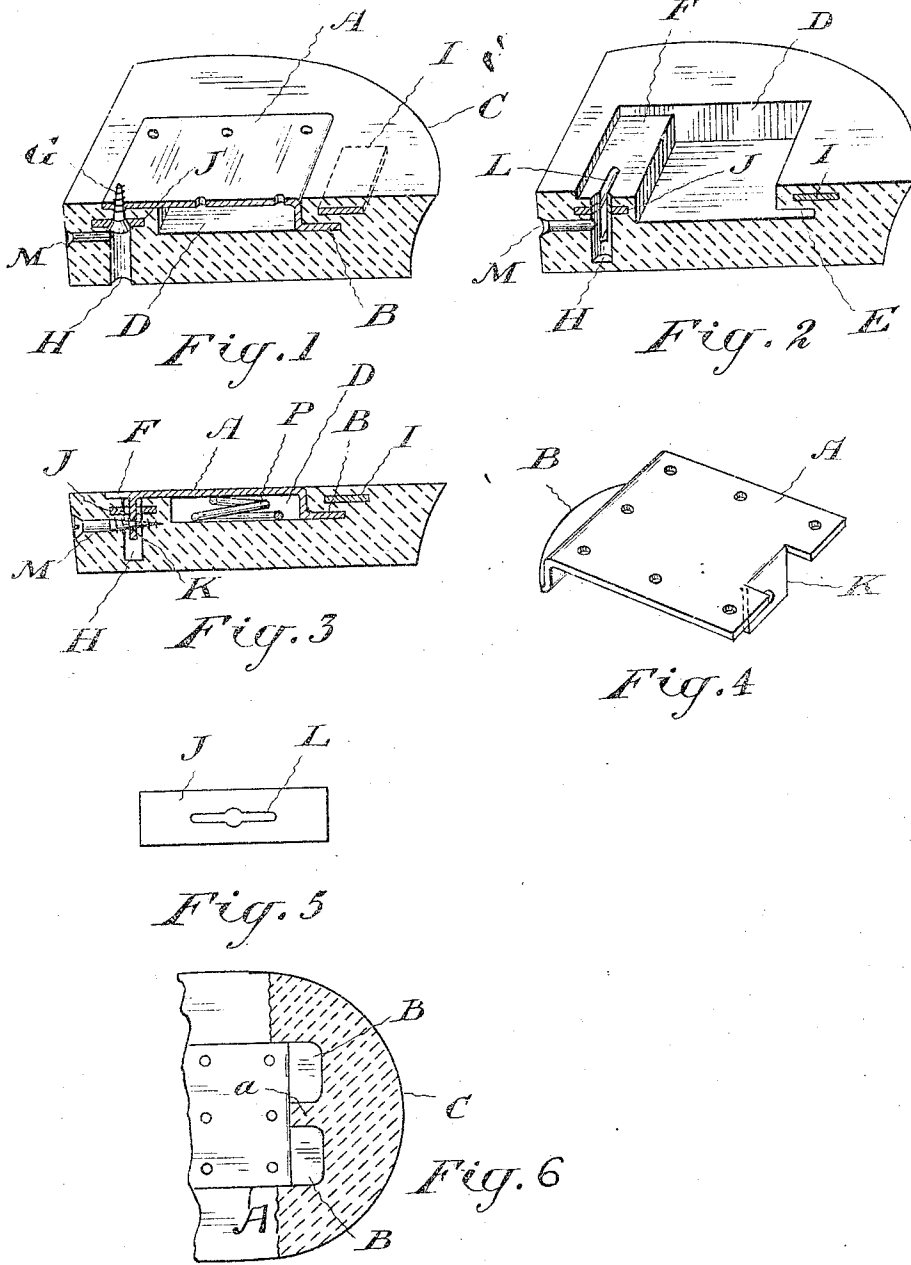


G. EVANS.
DETACHABLE HEEL.
APPLICATION FILED MAR. 18, 1911.

1,033,686.

Patented July 23, 1912.



WITNESSES:

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GEORGE EVANS, OF TORONTO, ONTARIO, CANADA.

DETACHABLE HEEL.

1,032,686.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE EVANS, of the city of Toronto, Province of Ontario, Canada, have invented certain new and useful Improvements in Detachable Heels, of which the following is a specification.

This invention relates to detachable rubber heels of the type disclosed in Canadian Patent No. 128,483, dated October 4th, 1910, in which I am interested, and my object is to devise attaching means which will not only be cheaper to make but which will permit of the use of less flexible, and therefore cheaper, material in the heel itself.

Any device requiring that the heel be bent to spring it over the lips of the attaching member necessitates the use of a high grade rubber in the heel. I therefore provide my attaching member with means at one end only which engages a recess formed toward the rear of the upper side of the heel. A removable screw or pin serves to hold the forward part of the heel in place.

Figure 1 is a perspective section of a rubber heel and attaching plate constructed in accordance with my invention. Fig. 2 is a perspective section of the heel alone. Fig. 3 is a longitudinal section showing a modification of the attaching plate. Fig. 4 is a perspective view of the attaching plate such as employed in Fig. 3. Fig. 5 is a plan view of the transverse stiffener used in the forward end of the heel. Fig. 6 is a plan partly in section of a heel and attaching plate showing a modification of the lip on the latter.

In the drawings like letters of reference indicate corresponding parts in the different figures.

A is an attaching plate preferably stamped from sheet metal and adapted to be secured to the under side of the heel portion of a boot or shoe. This plate is bent downwardly at its rear end and a rearwardly extending lip B is formed thereon, preferably arc-shaped as shown. The heel C has a socket D, formed in its upper surface and at the rearward side of this socket is formed a recess E adapted to receive the lip B. Forward of the socket the upper surface of the heel is formed with a countersink F adapted to receive the forward end of the attaching plate A as shown. As the attaching plate engages the heel at one end only of the socket other means must be provided for

holding the forward portion of the heel in place. I provide for this purpose a screw G, or its equivalent. This screw is preferably screwed up from below through the heel and into or through the attaching plate A, as shown in Fig. 1. A hole H is preferably molded in the heel, which hole normally does not extend quite through the bottom of the heel, as shown in Fig. 2, but which is easily broken through when it is desired to hold a heel in place.

In order to securely and closely hold the heel in place through the engagement of the lip B in the recess E, I find it preferable to embed the transverse stiffener I in the heel just above the recess E as shown. As the forward part of the heel is connected with the attaching plate and therefore with the shoe at one point only, I find it desirable to also embed a stiffener J in the forward part of the heel with which stiffener the screw G preferably engages, as shown in Fig. 1.

As for some purposes it may be objectionable to have the screw pass up from below, I prefer to so arrange the heel that it may be used with an attaching plate such as shown in Figs. 3 and 4. This attaching plate, it may be seen, is provided with a downwardly bent lug K. The forward part of the heel is further provided with the slot L extending part way down through the heel and through the stiffener J as indicated particularly in Fig. 5. The hole M is preferably molded in the heel, as shown in Figs. 2 and 3, extending through the forward side thereof just below the stiffener J. The screw G enters the hole M and screws into the lug K just below the stiffener so that the heel will be held closely up against the shoe to which it is connected.

In all the forms described it will be seen that the same underlying principle is adhered to, namely, the formation of the heel and the plate so that a lip on the latter engages a recess on the former, while a separate detachable fastener is used to secure the other end of the heel to the attaching plate or shoe. To give greater resiliency in the heel a tapered coil spring P may be inserted between the bottom of the socket and the underside of the attaching plate, as shown in Fig. 3.

To prevent upward bending of the rubber over the recess E, I may use two recesses as shown in Fig. 6 separated by a portion of

rubber α which makes the heel practically solid at that point so that no upward bulge can occur. The plate A is of course provided with two lips B.

5 The great advantages of the constructions described are that the attaching plate may be cheaply formed by stamping, and as no bending of the heel is required in securing it in position a very cheap rubber may be employed if desired.

What I claim as my invention is:—

1. An elastic heel molded to form a socket in its upper side with a recess at one end of the socket extending substantially parallel
15 to said side in combination with a plate adapted for connection to a shoe and having a lip formed thereon adapted to releasably engage in the recess; and a separate detachable fastening at the other end of the heel
20 adapted to secure it to the shoe.

2. An elastic heel molded to form a socket in its upper side with a recess at one end of the socket extending substantially parallel to said side in combination with a plate
25 adapted for connection to a shoe and having a lip formed thereon adapted to releasably engage in the recess; a separate detachable fastening at the other end of the heel adapted to secure it to the shoe; and a transverse
30 stiffener embedded in the heel adjacent said fastening.

3. An elastic heel molded to form a socket in its upper side with a recess at one end of the socket extending substantially parallel
35 to said side in combination with a plate adapted for connection to a shoe and having a lip formed thereon adapted to releasably engage in the recess; a separate detachable fastening at the other end of the heel securing the heel to the plate at one point; and a
40 transverse stiffener embedded in the heel adjacent said fastening.

4. An elastic heel molded to form a socket in its upper side with a recess at one end of the socket extending substantially parallel
45 to said side in combination with a plate adapted for connection to a shoe and having a lip formed thereon adapted to releasably engage in the recess; a separate detachable
50 fastening at the other end of the heel adapted to secure it to the shoe; and a transverse

stiffener embedded in the heel adjacent said fastening and engaged thereby.

5. An elastic heel molded to form a socket in its upper side with a recess at one end of the socket extending substantially parallel
55 to said side in combination with a plate adapted for connection to a shoe and having a lip formed thereon adapted to releasably engage in the recess; a separate detachable
60 fastening at the other end of the heel securing the heel to the plate at one point; and a transverse stiffener embedded in the heel adjacent said fastening, and engaged
65 thereby.

6. An elastic heel molded to form a socket in its upper side with a recess at one end of the socket extending substantially parallel to said side in combination with a plate
70 adapted for connection to a shoe and having a lip formed thereon adapted to releasably engage in the recess; a transverse stiffener embedded in the heel opposite to and remote from the recess; and a screw passing through said stiffener adapted to screw into
75 the shoe.

7. An elastic heel molded to form a socket in its upper side with a recess at one end of the socket extending substantially parallel to said side in combination with a plate
80 adapted for connection to a shoe and having a lip formed thereon adapted to releasably engage in the recess; a transverse stiffener embedded in the heel opposite to and remote from the recess; and a screw passing
85 through said stiffener and plate.

8. An elastic heel molded to form a socket in its upper side with two recesses side by side at one end of the socket extending substantially parallel to said side in combination with a plate adapted for connection to a shoe and having lips formed thereon adapted to releasably engage in the recesses; and a separate detachable fastening at the other end of the heel adapted to secure it
95 to the shoe.

Toronto, this 10th day of March 1911.

GEORGE EVANS.

Signed in the presence of—

J. EDW. MAYBEE,
E. P. HALL.