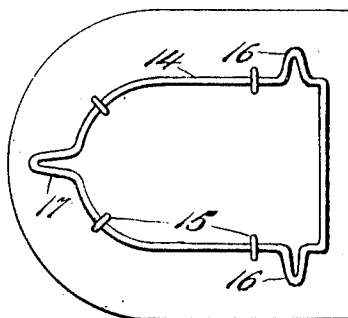
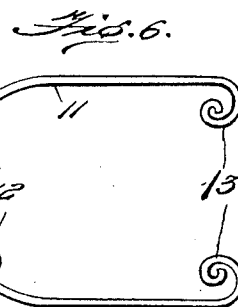
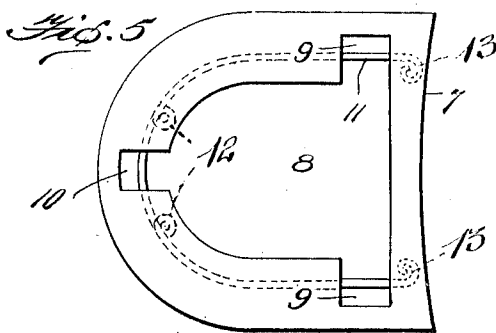
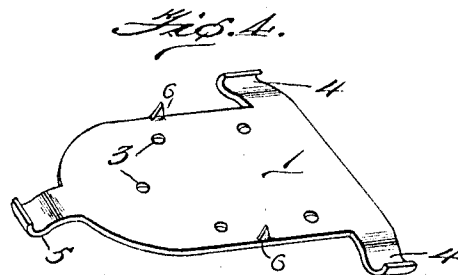
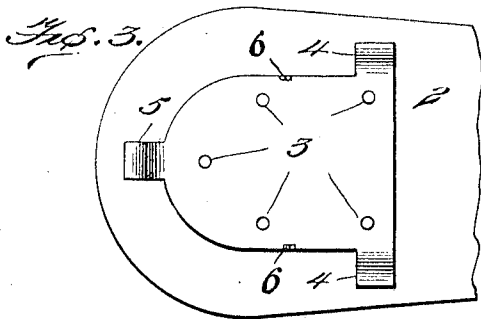
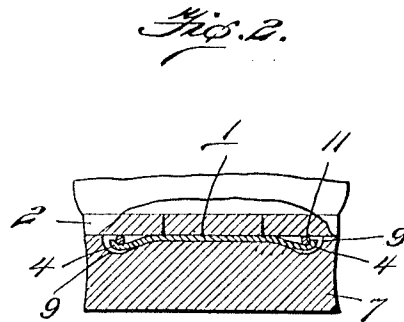
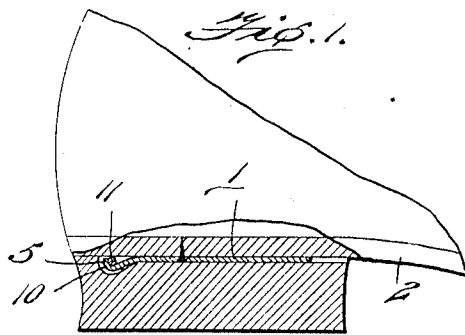


F. L. ROUSE.
HEEL ATTACHING MEANS FOR SHOES.
APPLICATION FILED MAR. 25, 1909.

947,353.

Patented Jan. 25, 1910.



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UNITED STATES PATENT OFFICE.

FRANK L. ROUSE, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR TO LIGHTENING DETACHABLE RUBBER HEEL CO., OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

HEEL-ATTACHING MEANS FOR SHOES.

947,353.

Specification of Letters Patent.

Patented Jan. 25, 1910.

Application filed March 25, 1909. Serial No. 485,732.

To all whom it may concern:

Be it known that I, FRANK L. ROUSE, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Heel-Attaching Means for Shoes: and I do 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.

This invention relates to improvements in shoe heels and means for securing the same to a shoe.

The object of the invention is to provide an improved construction of heel and means whereby the same may be readily attached to and removed from a shoe.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a central longitudinal sectional view of a shoe heel, showing the same secured to the shoe sole; Fig. 2 is a vertical cross sectional view of the same taken through the lateral heel engaging devices of the holding member; Fig. 3 is a bottom plan view of a portion of a shoe showing the heel holding member secured thereto; Fig. 4 is a perspective view of a holding member removed from the shoe sole; Fig. 5 is a plan view of the heel, showing the attaching member carried thereby; Fig. 6 is a plan view of the attaching member removed from the heel; Fig. 7 is a plan view of a portion of a shoe sole, showing a modified form of the holding member.

Referring more particularly to the drawings, 1 denotes a holding member which is permanently secured to the underside of the shoe sole 2 at the rear or heel end of the same, as shown. The member 1 is preferably in the form of a flat metal plate having formed therein a series of screw holes 3 to receive fastening screws whereby the same is attached to the sole of the shoe. The plate 1 corresponds somewhat in shape to the shape of the heel and is provided at its forward end and on each edge with laterally projecting lugs 4 which are preferably in

the form of downwardly projecting hooks. The plate or member 1 is also provided at its rear end with a rearwardly projecting hook-shaped lug 5. In the opposite side edges of the member 1 are formed marking and temporary attaching points 6 which are preferably cut from the metal forming the plate and are bent upwardly in position to engage the sole when the holding member, which has been previously engaged with the heel, is applied to the sole, thus marking the exact position for securing the holding plate to the sole. The holding member, when thus applied to the sole, may be pressed into engagement therewith with sufficient force to cause the points 6 to secure the holding plate to the sole, after the heel has been disengaged so that the holding member may be permanently fastened by the fastening screws without further fitting or measuring and when permanently fastened, after thus being temporarily secured, will be in exact position to receive and retain the heel in its proper place on the sole.

The heel 7 is formed in its upper or inner side with a recess 8 corresponding in shape to the holding member 1 and in said heel is also formed laterally extending recesses 9 and a central rearwardly extending recess 10, said recesses 9 and 10 communicating with the main recess 8. Arranged in the heel is an attaching member 11 which is preferably in the form of a wire rod bent into proper shape to cross the recesses 9 and 10 and thereby form locking bars which are engaged with the hook-shaped lugs 4 and 5 on the holding member 1. The attaching device 11 is preferably bent to form rear coils 12 which engage the heel at opposite sides of the rear recess 10. The attaching member 11 also has its ends bent in the form of coils 13 which engage the heel adjacent to each of the recesses 9. The coils 12 and 13 are provided to form a firmer bearing for the attaching member 11 in the heel. When the heel is formed of rubber or plastic composition, the attaching member is preferably molded therein, in position to provide the locking bars for receiving the lugs 4 and 5 of the holding member, as hereinbefore described. When the heel is engaged with the shoe sole, the holding member 1 will enter the recess 8, while the lugs 4 and 5 enter the recesses 9 and 10 and are engaged with

the locking bars of the attaching member which cross the slots thereby securely holding the heel in place on the shoe sole.

In Fig. 7 of the drawings is shown a modified form of holding member, said member being here shown in the form of a wire rod 14, which is substantially in the shape of the heel. The rod 14 is secured to the underside of the sole by means of staples or other suitable fastening devices 15 and said rod is bent on its opposite sides adjacent to its forward end to form laterally projecting lugs 16 adapted to be engaged with the locking bars in the recesses 9 of the heel. The rod 14 is also bent at its rear end to form a rearwardly projecting lug 17 which is adapted to be engaged with the locking members in the recesses 10 of the heel, thereby securely fastening the heel onto the shoe. By means of a holding and attaching mechanism constructed as herein shown and described, a heel may be quickly and easily engaged with or removed from the shoe sole without the use of nails or similar fastening devices which interfere with the cushioning qualities of the heel, when formed of rubber. By thus detachably securing the heels to the shoe, the former, when worn or run off on one side, may be reversed or applied to the opposite shoe, thus causing the heels to wear down evenly.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advan-

tages of the invention, as defined in the appended claims.

Having thus described my invention, what I claim is:

1. In a shoe, a holding member permanently secured thereto, said member comprising a metal plate having radially projecting hook-shaped lugs and marking points formed thereon to mark and temporarily attach the plate to the shoe sole, a heel having a central recess and a series of radial recesses communicating with said central recess, an attaching member comprising a rod bent into substantially the shape of said main recess and having formed therein coils, said attaching rod being arranged in the heel to span the radial recesses therein and thereby form locking bars to receive the hooked lugs on said holding member.

2. In a shoe, a holding member permanently secured thereto and comprising radially projecting hook shaped portions, a heel having a central recess and a series of radial recesses communicating with said central recess, an attaching member comprising a rod bent substantially the shape of the main recess and being arranged in the heel to span the radial recesses therein, and thereby form locking bars to receive the hook shaped portions on said holding member.

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

FRANK L. ROUSE.

Witnesses:

EVERETT H. HADLEY,
U. G. WILSON.