(No Model.)

G. W. F. RANDOLPH.

HEEL.

No. 473,590. Patented Apr. 26, 1892.

Fig. 1.

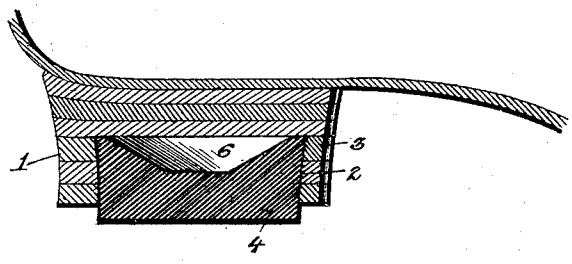


Fig. 2.

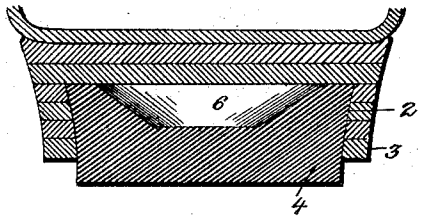
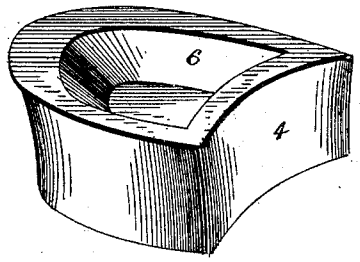


Fig. 3.



Witnesses
Chas. C. Ford.
W. S. Duvall.

Inventor
G. W. F. Randolph.
By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

GEORGE W. F. RANDOLPH, OF SALEM, WEST VIRGINIA.

HEEL.

SPECIFICATION forming part of Letters Patent No. 473,590, dated April 26, 1892.

Application filed May 7, 1891. Serial No. 391,971. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. F. RANDOLPH, a citizen of the United States, residing at Salem, in the county of Harrison and State of West Virginia, have invented a certain new and useful Improvement in Boot or Shoe Heels, giving ease, safety, and celerity of action, as well as being measurably noiseless; and I do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings.

This invention relates to an attachment for the heels of boots or shoes, the objects in view being to provide a cushioning device adapted to be readily applied to the boot or shoe heel and when applied to serve as a sound-deadener when in the act of walking, to accelerate and facilitate the operation of walking, to lend ease and comfort to the wearer, to prevent jarring by contact of the heel with hard pavements, and to obviate slipping.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a longitudinal section of a heel provided with an attachment constructed in accordance with my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a detail in perspective of the heel attachment.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates an ordinary heel either of a boot or shoe, and, as is usual, consists in the series of layers or taps nailed together. The heel is provided at its bottom or lower side with a recess 2, which is formed by removing the inner portion of several layers or taps. The formation of this recess 2 leaves a surrounding rim 3, which is simply those portions of the taps that remain undisturbed.

The attachment has concaved sides, or, in other words, has the general shape of a heel, and is formed of vulcanized rubber molded to shape. This attachment consists of a rubber block 4, of a thickness somewhat greater than the combined width of the several recessed layers or taps. The upper face of the block 2 is provided with a concavity or countersink 6, for a purpose hereinafter apparent.

By forming the recess in the bottom of the heel the same is adapted to have my attachment applied, which application is accomplished as follows: By compressing the opposite sides of the heel or slightly bending the opposite sides of the concavity toward each other the attachment as a whole is made sufficiently small to be sprung into and snugly fit the recess 2 in the heel, and such compression of the attachment, though it may be accomplished without the concavity 6, yet renders the heel sufficiently pliable to be compressed by the hand. The concavity 6 also performs another function in that as the weight is exerted upon the heel the air is forced or exhausted from between the concavity and the under surface of the lift above, so that a suction is produced between the heel and the rubber block or cushion, and such suction greatly increases the tenacity with which the attachment maintains its position.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a cheap and simple attachment for heels of boots or shoes which will lend ease to the wearer, prevent slipping, and may be readily attached to position.

Having described my invention, what I claim is—

The herein-described improved heel, the same having its under side provided with a recess the walls of which are convexed and the rubber plug having concaved sides and fitting snugly within and conforming thereto, the under side of the plug projecting below the corresponding side of the heel and the upper side of said plug being concaved to form the suction-chamber having a flexible surrounding wall, substantially as specified.

G. W. F. RANDOLPH.

Witnesses:
E. A. WILSON,
R. L. TOWLES.