Feb. 5, 1924. 1,482,457

T. W. BIGONEY

SHOE HEEL

Filed Oct. 31, 1922

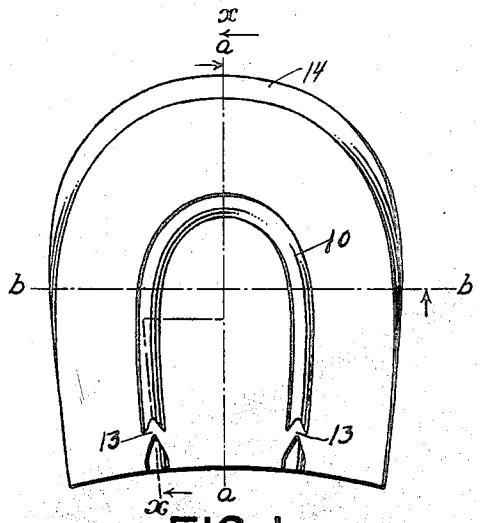


FIG. 1

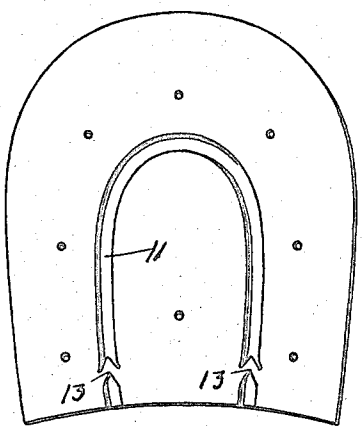


FIG. 2

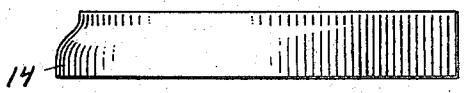


FIG. 3

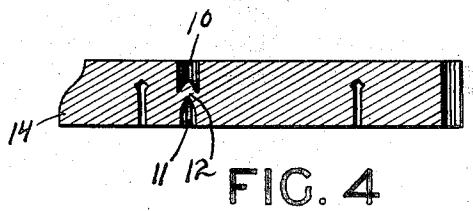


FIG. 4

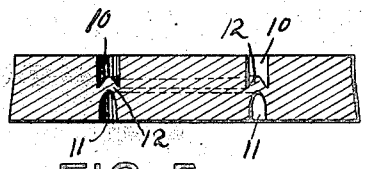


FIG. 5

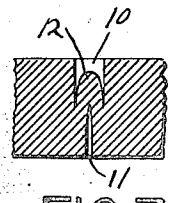


FIG. 7.

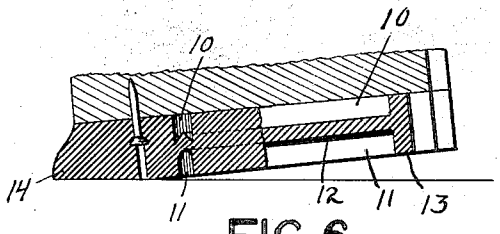


FIG. 6.

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UNITED STATES PATENT OFFICE.

THOMAS W. BIGONEY, OF PHILADELPHIA, PENNSYLVANIA.

SHOE HEEL.

Application filed October 31, 1922. Serial No. 596,080.

To all whom it may concern:

Be it known that I, THOMAS W. BIGONEY, a citizen of the United States, and resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Shoe Heels, of which the following is a specification.

This invention is an improvement in heels for use in connection with shoes or other foot wear, and of that type commonly known as rubber heels. Heels of this general type are commonly made of some rubber-like or resilient composition, and are sold to shoe repair shops or cobblers in a limited number of standard sizes and shapes. These fit only a small number of the shoes on the market and therefore the cobbler usually finds it necessary to resort to trimming of the rubber heel to secure the proper fit. This not only takes time, but requires skill, and carelessness in such trimming often ruins the appearance of an otherwise good piece of work.

The object of my invention is to so construct a rubber heel or heel lift that its shape and size may be altered to cause it to conform to the shape and size of the shoe heel portion or base to which it is to be attached. By making the range of adjustment at least equal to the difference between the standard sizes, all trimming, particularly at the sides and back, may be avoided.

Although my invention may be utilized in heels having a vertically extending peripheral edge, it is particularly adapted for use in heels having other forms of edge where trimming is more difficult or tends to destroy or reduce the efficiency of some special feature. My invention is particularly adapted for use with the type of edge construction disclosed in my prior application Serial No. 575,573, filed July 17th, 1922.

In carrying out my invention I provide for the desired adjustment as to width of the lift by providing a web portion within a groove, and so formed and positioned that it permits a narrowing or widening of the groove and a corresponding variation in an outside dimension of the lift. Preferably there is a pair of opposed grooves, one in the upper surface and the other in the lower surface of the lift, the two grooves being separated by a web portion which may be extended or compressed in the varying of the width of the grooves.

In the accompanying drawings I have illustrated one embodiment of my invention. In these drawings:—

Fig. 1 is a top plan view of a lift embodying my invention.

Fig. 2 is an inverted plan view.

Fig. 3 is an edge view.

Figs. 4 and 5 are sections on the lines A—A and B—B respectively of Fig. 1.

Fig. 6 is sectional detail showing the action of one of the grooves during use, and

Fig. 7 is a sectional detail showing the web compressed.

The body portion of my improved heel lift may be formed of any composition commonly employed in this art, and the lift may be made of any of the usual sizes and of the desired or any ordinary proportions adapting it for attachment to the body portion of a shoe heel. The upper surface is provided with a groove 10 which may be of substantially U-shape, that is, it may be substantially parallel to and spaced from the side and rear edges of the heel and terminate at the front edge.

The under surface is provided with a similar groove 11 disposed directly beneath the groove 10 and preferably slightly narrower. Within the body of the heel, the two grooves are separated by a transverse web 12 which is integral with the portions of the lift on opposite sides of the grooves. This web is preferably of substantially inverted V-shape in cross section, as is shown particularly in Figs. 4 and 5.

The upwardly projecting intermediate portion of the web extends into the wider groove 10. As the main portions of the two grooves are substantially parallel to the side edges of the body of the heel, it is apparent that such side edges may be drawn apart to a slight extent which would result in the lowering and flattening of the web, or they may be pressed together resulting in a closing up of the lower groove 11 and the flattening of the web into the upper groove 10. This position of the parts is indicated in Fig. 7.

The grooves extend all of the way to the front edge of the lift so that the lift may be widened, narrowed or otherwise altered in transverse dimension. In order to pre-

vent dust, water and other foreign material entering the forward ends of the upper groove 10, there are provided supplemental webs 13 which are also substantially V-shape, but extend vertically from the upper to the lower surface of the lift. By forming these webs in this manner they do not interfere with the compression or extension of the lift, but form closures for the exposed ends of the grooves. These webs or partitions 13 may be at the extreme forward ends of the grooves, although preferably they are spaced inwardly to a short distance from said front ends so that if the heel be too long and it is necessary to trim off the front edge which is concealed beneath the shoe when in use, such trimming will not cut away the webs 13 or open up the ends of the groove 10.

The upper surface of the lift may be made to conform exactly to the contour of the heel to which the lift is to be applied, while the under surface is made somewhat larger by reason of a rearward extension or flange 14, the under surface of which is in the same plane with the under surface of the lift. The rear surface of this extension is preferably curved and merges into the rear surface of the body portion of the heel. This extension has various advantages, as pointed out in my prior application above referred to, but among others it is free to bend slightly as indicated in Fig. 4, when the rear under edge of the heel first strikes the ground in walking. This bending portion has a preliminary cushioning effect and yields by bending rather than by lateral distortion.

By means of my improved system of grooves in the body of the lift, the latter may be caused to properly conform to the heel body on the shoe without trimming or modifying this rear extension, which latter is of maximum width at the center of the rear and merges into or disappears along midway of the side edges. Furthermore, portions of the two grooves come substantially parallel to the rear edge of the heel lift, and therefore the bending of the extension 14 is facilitated by a partial opening up of the adjacent portion of the under groove 11 as indicated particularly in Fig. 4. The lift may be provided with suitable nail holes, whereby when the heel has been compressed or distended to the proper shape and size it may be secured in place.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A rubber heel lift having a pair of opposed grooves in the upper and lower surfaces comparatively narrow in respect to their depth, and separated by a comparatively thin web of material adapted to be distorted to permit a widening or narrowing of the grooves, and a corresponding variation in the transverse dimension of the lift.

2. A rubber heel lift having a groove in the one surface thereof substantially parallel to the side and rear edges and spaced therefrom, and terminating in the front edge upon opposite sides of the center line said groove being comparatively narrow in respect to its depth, and the material upon opposite sides of the groove being connected by a comparatively thin web which may be distorted to vary the width of the groove and the effective width of the heel.

3. A rubber heel lift having a pair of grooves, one in the upper surface and the other in the lower surface and disposed in substantially superposed relationship but separated by a web of material, said grooves extending in substantially U-form and parallel to the side and rear edges of the lift.

4. A rubber heel lift having a pair of grooves, one in the upper surface and the other in the lower surface and disposed in substantially superposed relationship but separated by a web of material, said web having inclined portions permitting a variation in the width of the grooves.

5. A rubber heel lift having a pair of grooves, one in the upper surface and the other in the lower surface and disposed in substantially superposed relationship but separated by a web of material, said web being of substantially V-form in cross section, whereby it may be flattened or compressed upon variation in the width of the lift.

6. A rubber heel lift having a substantially U-shaped groove in the upper surface thereof following but spaced from the side and rear edges of the lift, and closure means at the forward ends of said groove.

7. A rubber heel lift having a substantially U-shaped groove in the upper surface thereof following but spaced from the side and rear edges of the lift, and closure means at the forward ends of said groove and in the form of vertically disposed transverse webs permitting a variation in the width of the groove.

8. A rubber heel lift having a U-shaped groove in the under surface thereof substantially following but spaced from the side and rear edges and permitting a variation in the width of the lift, said lift having the lower portion extending rearwardly to a greater distance than the upper portion, the bending of said rearwardly extending portion being facilitated by the portion of said groove which is substantially parallel to the rear edge of the lift.

Signed at Philadelphia, in the county of Philadelphia and State of Pennsylvania this 28th day of Oct. A. D. 1922.

THOMAS W. BIGONEY.