Aug. 17, 1937. R. H. WATERS ET AL 2,090,244

RUBBER HEEL LIFT

Filed March 23, 1935

Fig. 1

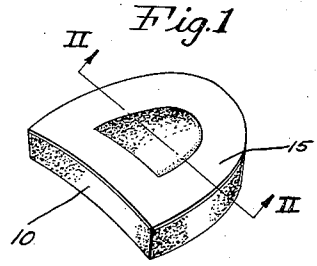


Fig. 2

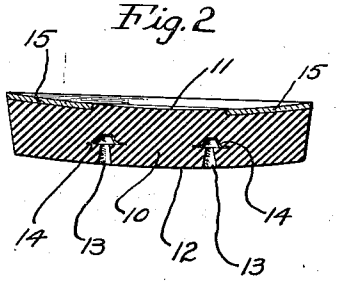


Fig. 3

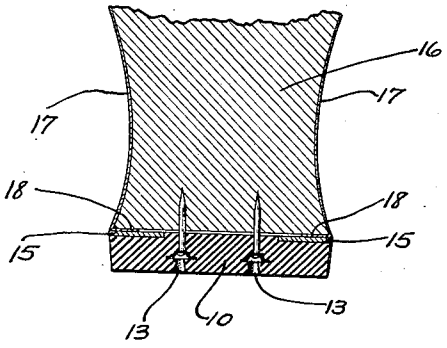


Fig. 4

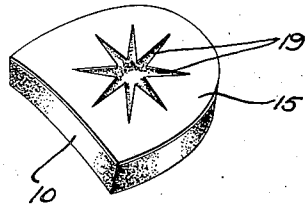
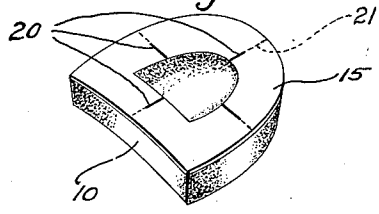


Fig. 5



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RUBBER HEEL LIFT

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Application March 23, 1935, Serial No. 12,685

4 Claims. (Cl. 36—35)

The present invention relates to rubber heel lifts and has particular relation to lifts for women's shoes of the high-heel type.

Certain types of high heels comprise a body portion or heel seat constructed of wood or aluminum and having a covering of leather, kid, satin or the like cemented thereto. The bottom edges of this covering are folded under the lower surface of the heel and cemented or otherwise secured in place and the rubber lift applied over this inwardly folded edge of the covering and in direct contact therewith.

The preferred type of rubber lift is molded with a concaved upper surface so that when the lift is nailed in place the upper outer edges thereof will closely hug the heel seat, thus not only presenting a neat and finished appearance but also preventing dirt from working in between the lift and the seat. It has been noticed, however, that when a lift of this configuration is applied to a heel having a thin outer covering, such as that above described, the inturned edges of the covering will be engaged by the relatively sharp outer edges of the lift so that when the latter is flattened and spread laterally upon being nailed in position, these edges will tear the inturned edges of the covering away from the body of the heel and force them outwardly. This results in an unsightly wrinkle or bulge in the covering adjacent to the lift. Moreover, the flexing of the rubber of the lift which occurs when the shoe is worn, causes friction between the lift and the covering which tends to work the inturned edges outwardly and develop a wrinkle at this point even though one is not formed when the lift is initially attached.

Various expedients have been resorted to in an effort to avoid the difficulties mentioned. For example, it has been proposed to vulcanize a sheet of material having a smooth surface to the upper surface of the heel during the molding operation but the rubber, having a greater coefficient of contraction than the sheet, causes the lift to bulge upwardly, thus destroying the concaved configuration of its upper surface and also its utility as a lift.

One of the objects of the present invention is to provide a rubber heel lift having an exposed central area on its upper surface for frictional contact with the heel seat and having the marginal portion thereof covered by a material having a relatively low coefficient of friction which will slip upon the inturned edges of the covering when the heel is applied to the shoe and when the rubber is flexed upon wear without displacing the inturned edges of the covering.

Another object of the invention is to provide a rubber heel lift of the character described which is provided with a band of relatively stiff material about the margin thereof which will reinforce the body portion of the lift against lateral expansion when the lift is applied to a shoe.

Still another object of the invention is to provide a rubber heel lift having means incorporated therein for reinforcing the rubber against lateral expansion, which means will present relatively smooth surface to the inturned edges of the heel covering so as to prevent the displacement thereof during wear.

With such objects in view, as well as other advantages which may be incident to the use of the improvements, the invention consists of the several method steps and combinations thereof and also of the several elements of the apparatus and combinations thereof, hereinafter set forth and claimed with the understanding that the several necessary elements constituting the same may be varied in proportions and arrangement without departing from the nature and scope of the invention as defined in the appended claims.

In order to make the invention more clearly understood there are shown in the accompanying drawing, means for carrying the invention into practical effect, without limiting the improvements in their useful application to the particular constructions which, for the purpose of explanation, have been made the subject of illustration.

In the accompanying drawing:

Fig. 1 is a perspective view of a heel lift constructed in accordance with the present invention;

Fig. 2 is an enlarged transverse sectional view through the heel lift taken on line II—II of Fig. 1;

Fig. 3 is a vertical sectional view through a heel and heel lift and showing the latter secured thereto in a flattened condition;

Fig. 4 is a perspective view of a heel lift embodying another form of the invention; and

Fig. 5 is a perspective view of a heel lift embodying still another form of the invention.

Referring to the drawing, the present and improved heel lift is shown as comprising a body portion 10 of molded rubber or the like which is preferably formed with a concave upper surface 11 and preferably with a convex lower tread surface 12 (Fig. 2). The body 10 is also formed

with a plurality of nail apertures 13 and with the usual washers 14 which are embedded therein during the molding operation and which prevent the heads of the nails from tearing loose from the rubber.

The upper surface 11 of the body 10 is provided with a marginal band 15 of fiber, celluloid or any other relatively stiff material having a smooth surface. This band is preferably embedded in the body of the rubber and vulcanized thereto during the molding operation. The configuration of the band 15 is such that the central area of the body portion 10 is exposed for frictional contact with the main body of a heel 16 (Fig. 3) when the former is secured in position. The heel 16 is provided with the usual covering 17 of leather, kid, satin or the like, which is cemented thereto so as to conform accurately to the curvature and configuration of the heel. The lower edges of the covering 17 are folded inwardly, as indicated at 18, and are also secured in position by cementing. It will be observed from an inspection of Fig. 3 of the drawing that the band 15 of the lift abuts the inturned edges 18 and by reason of the smooth surface thereof will slide upon the inturned edges 18 with any flexing or lateral movement of the lift, thus minimizing any tendency to tear the edges 18 away from the heel.

By reason of the fact that the rubber of the body portion 10 has a greater degree of contraction than the band 15, it may be found desirable to weaken the band at intervals in order to prevent the lift from working upwardly during the vulcanizing operation. This may be accomplished by providing the inner periphery of the band 15 with a plurality of recesses 19, as shown in Figure 4 or with a plurality of slits 20, as shown in Figure 5. These recesses or slits weaken the material of the band so that it may give to the desired degree with the shrinkage of the rubber, thereby insuring that the finished article will not become warped in cooling. It will be understood, however, that this weakening of the band 15 may be obtained in other ways, such as by serrating the inner periphery of the band or by perforating the same at intervals. These slits 20 may be extended entirely to the outer periphery of the margin 15, as indicated at 21 on Fig. 5 in cases where the coefficient of expansion between the material of the margin strip and the lift differs radically.

In certain instances it may be found desirable to treat the outer upper marginal area of the lift by spraying thereon paint, enamel, varnish, or a preperation known as Pliolite, so as to provide a film having a smooth, slick surface at the point where the lift overlies the inturned edges 18 of the covering 17.

Other modifications and changes in proportion and arrangement of the several necessary elements constituting the invention may be made by those skilled in the art without departing from the nature and scope of the invention as defined in the appended claims.

Having thus described the invention what we claim is:

1. A heel lift comprising a rubber body having the central area of the upper surface thereof exposed for frictional engagement with the heel seat of a shoe and the marginal area thereof covered by a film of material having relatively low friction with said heel seat.

2. A heel lift comprising a rubber body having the central area of the upper surface thereof exposed for frictional engagement with the heel seat of a shoe and the marginal area thereof covered by a film of paint to reduce friction with said heel seat.

3. A heel lift comprising a rubber body having the central area of the upper surface thereof, within the nailing zone, exposed for frictional engagement with the heel seat of a shoe and the marginal area thereof, outside the nailing zone, covered by a relatively thin layer of anti-friction material affixed thereto to reduce friction with said heel seat.

4. A heel lift comprising a rubber body having a concaved upper surface and a convexed lower surface, and a band of relatively thin material having a low coefficient of friction engageable with the margin only of the upper surface of said body outside the nailing zone, and conforming to the configuration of said body for reinforcing the same against lateral expansion when attached to the heel seat of a shoe and for minimizing friction between said body and the margin of said heel seat, the central area of said body being exposed for frictional contact with the heel seat of said shoe.

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