Aug. 25, 1931. D. W. LEWIS 1,820,539

HEEL

Filed April 19, 1929

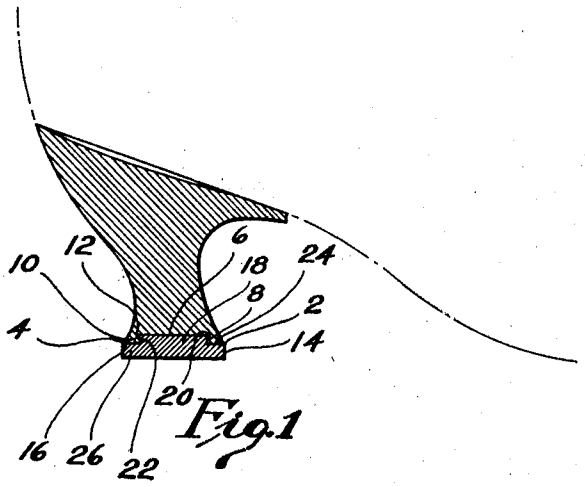


Fig. 1

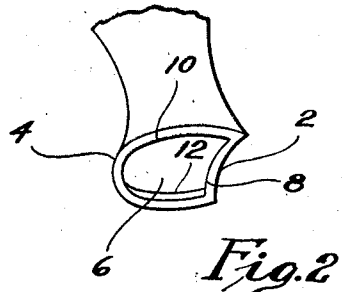


Fig. 2

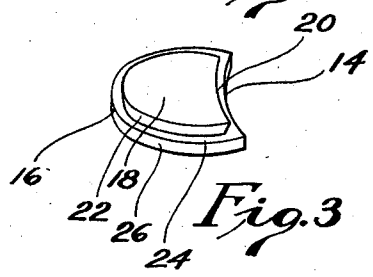


Fig. 3

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Patented Aug. 25, 1931 1,820,539

UNITED STATES PATENT OFFICE

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HEEL

Application filed April 19, 1929. Serial No. 356,479.

The present invention relates to heels, and more particularly to the attaching of the top lifts to the tread surfaces of heels.

Heel top lifts, as is well known, are continually wearing down, and must be replaced. The job is of such nature as, according to present-day practice, to require the services of the shoe-repair shop. Methods of alleged simplification have been suggested from time to time, but they have proved, in practice, to involve complications, rather than simplification.

An object of the present invention is to provide an improved joint between the heel and its top lift of such simple nature that any one, no matter how unskilled, may replace worn-out top lifts at a moment's notice, without inconvenience, and without resorting to the shoe-repair shop, and at a minimum of expense.

Other objects will be explained hereinafter and will be particularly pointed out in the appended claim.

The invention will be described in connection with the accompanying drawings, in which Fig. 1 is a longitudinal section through a shoe heel, illustrating the present invention; Fig. 2 is a perspective of the heel, with the top lift removed, and Fig. 3 is a corresponding perspective of the top lift.

The heel of the present invention, as is customary, is provided with a tread surface that is bounded continuously by a breast wall 2 and a curved back wall 4. An opening 6 extends into the heel through the tread surface. The opening 6 is bounded continuously by a wall 8 that is substantially parallel, and relatively close, to the breast wall 2, and a curved wall 10 that is substantially parallel, and relatively close, to the back wall 4. The walls 8 and 10 incline or diverge away from the tread surface, as shown in Fig. 1, so that the cross-sectional area of the opening 6 is larger at the interior point 12 of the heel than at the tread surface.

The top lift has a portion 26 that is of substantially the same boundary, and the same dimensions, as the tread surface of the heel, being provided continuously with a breast wall 14, corresponding to the breast wall 2, and a curved back wall 16, corresponding to the back wall 4. The top lift is, however, provided with a second portion 18 that projects from the portion 26 and the boundary of which is substantially the same as that of the opening 6, its wall 20 corresponding to the wall 8 and its back wall 22 to the back wall 10. The wall 20 is parallel, and relatively close, to the wall 14, and the wall 22 is parallel, and relatively close, to the wall 16. A marginal lip 24 is thus provided upon the portion 26 that extends out beyond the walls 20 and 22 of the portion 18. Owing to the parallelism of the walls 20 and 14, and 22 and 16, respectively, the lip 24 is of uniform width; and as these walls are so closely positioned together, the width of the lip 24 is very small. Owing to the small width of the lip 24, it has substantial rigidity upon top lifts of ordinary thickness.

The walls 20 and 22 diverge or incline outward, away from the portion 26, to correspond to, and lock against, the diverging walls 8 and 10. The walls 20 and 22 may, if desired, incline substantially parallel to the walls 8 and 10, or they may have an increased inclination to provide for a greater frictional locking effect. Once the portion 18 of the top lift is inserted in the opening 6, therefore, the top lift can not easily fall out; and owing to the rigidity of the lip 24, it does not separate from the tread surface of the heel, but contacts snugly and even hugs closely thereagainst. This is a very important feature of the present invention, as it provides a top-lift which can readily be assembled with, or as readily disassembled from, the heel, without the use of cement, nails, screws, or other fastening devices, and that will remain snugly in place throughout the life of the top lift. This could not be effected if the marginal lip 24 were so large as to separate from the tread of the heel seat, exposing cracks for the entrance of dirt, and such cracks would, furthermore, result in greater and greater separation of the top lift from the heel seat, until, finally, an accidental engagement of the top lift with some projection would cause the top lift to become separated altogether. When the top lift wears out, it can forcibly be

removed from the heel and replaced by a new top lift merely by compressing the rubber of the wedge-shaped portion 18 past the restricted outer boundary of the opening 6 and against the inclined walls 8 and 10 of the undercut or dove-tail-walled opening 6.

For this reason, it will readily be understood that the portion 18 or, at least, the portions along the walls 20 and 22 thereof, should be constituted of rubber. Other portions of the top lift may, however, be constituted of any other desired material. In practice, it is found preferable to make the whole top lift of rubber, and a top lift of this nature finds its greatest application for use with wood heels. A wood heel is thus provided with a rubber pavement-engaging surface throughout, making it unnecessary for any part of the wood to touch the pavement until the lip 24 is entirely worn down. A wood heel of the French or Louis type is illustrated, but the invention is applicable to all types of heels.

Modifications will readily occur to persons skilled in the art, and all such are considered to fall within the spirit and scope of the present invention, as defined in the appended claim.

What is claimed is:

A French wood heel having a tread surface bounded continuously by a breast wall and a back wall and having an opening extending into the wood through the tread surface, the opening being bounded continuously by a wall substantially parallel, and relatively close, to the breast wall and a wall substantially parallel, and relatively close, to the back wall, the walls of the opening inclining away from the tread surface, and a thin heel top lift comprising a first portion having substantially the same boundary as that of the tread surface and a second elastic portion having substantially the same boundary as that of the opening, whereby a marginal lip of substantially uniform and relatively small width is provided upon the first portion extending out beyond the walls of the second portion, the width and thickness of the lip being such that the lip has substantial rigidity, the second portion being seated in the opening and the lip contacting snugly with the wood of the tread surface, and the elastic walls of the second portion inclining away from the first portion substantially parallel to the inclined walls of the opening to engage frictionally against the inclined walls of the opening, whereby the rubber-inclined walls of the second portion press yieldingly against the inclined walls of the opening to lock the top lift to the heel.

In testimony whereof, I have hereunto subscribed my name.

D. W. LEWIS.