Sept. 23, 1958 J. P. QUIRK 2,852,864

SHOE HEELS

Filed Jan. 16, 1957

Fig. 1.

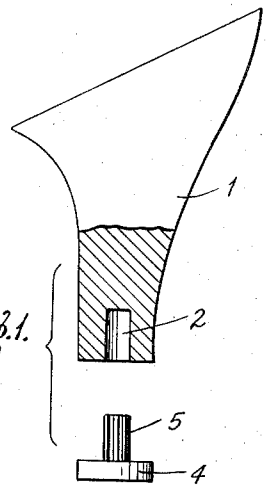


Fig. 2.

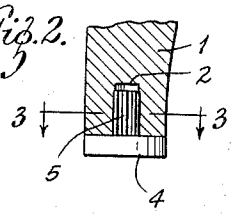


Fig. 3.

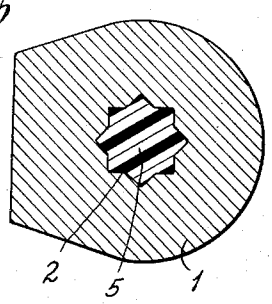


Fig. 4.

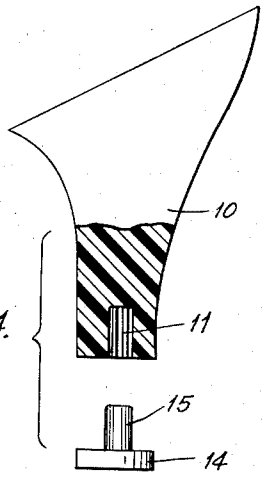


Fig. 5.

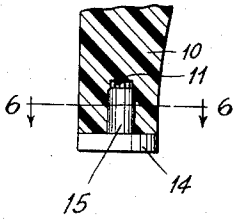


Fig. 6.

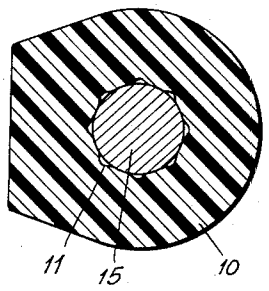


Fig. 7.

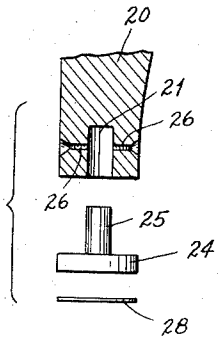


Fig. 8.

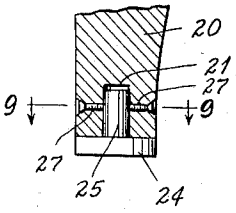
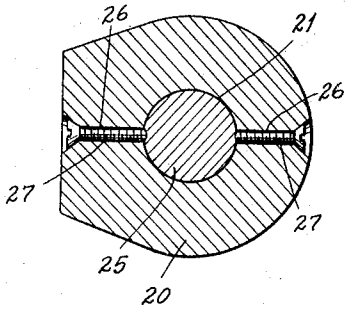


Fig. 9.



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SHOE HEELS

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3 Claims. (Cl. 36—34)

This invention relates to shoe heels and more particularly to a heel construction designed to provide for the application, retention and replacement of a top lift to the heel.

The problem of applying top lifts to the heel body of the conventional high heel type and the replacing of top lifts is one well recognized in shoe making as presenting difficulties. Frequently the heel body is of wood or other materials, such as plastics, and when the conventional methods of nailing the lift in place are employed there is likelihood of splitting the narrow bottom of the heel body both during the original application and particularly when renewal is required and the material is weakened. If the lift is applied by adhesives directly to the flat surface of the bottom of the heel body without nailing, the likelihood of the lift being displaced in wear is recognized to be present in many instances.

It is one of the primary objects of the present invention to solve these problems by providing a top lift construction which, in cooperation with the formation of the bottom of the heel body, provides means for the mounting of the top lift to securely hold it in place during wear, and which lift may be readily removed and replaced without danger of damage to the heel body.

The specific advantages of the invention will be readily understood from the disclosure which follows, taken in connection with the accompanying drawing, in which:

Figure 1 illustrates a heel body of wood or other relatively softer material than the shank of the top lift and with the top lift of relatively harder material, the lower portion of the heel body being in section and the top lift unmounted;

Figure 2 illustrates the lower portion of the heel body in section and the top lift mounted;

Figure 3 is an enlarged horizontal section on the line 3—3 of Figure 2 to illustrate the manner in which the relatively harder material seats into the wall of the recess in the bottom of the heel body when the shank of the top lift is mounted by pressing its shank into the recess;

Figure 4 is a view similar to Figure 1, but in which the material of the heel body is relatively harder than the top lift shank;

Figure 5 is a view similar to Figure 2 but with the materials as in Figure 4;

Figure 6 is an enlarged horizontal section on the line 6—6 of Figure 5;

Figure 7 is a view of a modified construction of parts similar to the illustration of Figure 1;

Figure 8 illustrates the lower portion of the heel body in section and the modified manner of mounting the top lift; and

Figure 9 is an enlarged view on the line 9—9 of Figure 8.

In Figures 1 to 3, inclusive, there is illustrated a conventional heel body 1 formed of wood or similar material which has formed in its bottom face a cylindrical recess 2. The top lift used in connection with such a heel made of wood or similar material is preferably formed from a material such as plastic having a degree of hardness somewhat greater than the material of the heel body. The top lift is formed preferably of this material by molding to form a disc 4 having the same contour as the bottom face of the heel body and carrying on its top face a stem 5, the periphery of which is serrated forming a series of projections with relatively sharp edges. The maximum diameter of the stem 5 is slightly in excess of the diameter of the circular recess 2 so that the top lift may be mounted, as illustrated in Figure 2, by pressing the stem 5 into the recess, causing the projections on the stem to embed into the wall of the recess, as illustrated in Figure 3.

The ability of the stem to embed into the walls of the recess when pressed into position results from the relatively high degree of hardness of the stem in excess of the degree of hardness of the wall of the recess, so that when the stem is mounted in the recess the top lift will be firmly held in place and prevented from any torsional movement in respect of the heel body.

In Figures 4 to 6, inclusive, a modification is illustrated, in which the heel body 10 is preferably formed from a material such as plastic and the walls of the recess 11 are serrated to form inwardly projecting sharp edges. In the case of the modification, the top lift is of relatively softer material than the material of the heel body and may be of wood or other material having a relative degree of less hardness than the material of the recess 11. In this case, the top lift includes a disc 14 and a cylindrical stem 15, the diameter of which in relation to the diameter of the recess 11 being such that the stem may be pressed into the recess 11 and the projections on the surface of the wall of the recess will impinge against the body of the stem, as illustrated in Figure 6, thus effecting a rigid non-torsional mounting for the top of the lift.

In Figures 7 to 9, inclusive, a further modification is shown in which the same principle of providing a relative degree of hardness of the stem of the top lift and the wall of the recess is employed. In this modification, the heel body 20 may be of any suitable material, and it is not necessary to form the top lift of material having a different degree of hardness. In this modification, the recess 21 is cylindrical and the top lift comprising the disc 24 and the cylindrical stem 25 are attached by dimensioning the diameter of the stem and of the recess so that when the stem 25 is seated in the recess it will be firmly held in position. But, in order to prevent displacement, one or more radial threaded bores 26 are formed in the side wall of the bottom of the heel body and screws 27 may be employed to thread into the bores 26 and the inner ends of the screws impinging against and being embodied in the side walls of the stem 25. If desired, the bores 26 may be recessed so that the screw heads may be countersunk into the body of the heel. In this modification, if material of a rigid and hard nature is employed it is preferable to apply a thin facing 28 of a softer material such as leather or rubber to avoid shock when the shoe is worn.

It will be observed that in each of the embodiments of the invention the principle of regulating the degree of hardness between the material of which the stem of the top lift is made and the material of the heel body surrounding the recess in which the stem seats so that, when mounted, the top lift will be rigidly supported in place, but in such a manner that it may be readily removed and replaced without danger of damaging the heel body. The mounting also provides the rigid connection of the top lift to the heel body without employing nails passing through the top lift disc into the face of the heel, thus making it possible to repeatedly replace the top lifts without damaging or defacing the bottom face of the heel.

What is claimed is:

1. In a shoe heel construction, the combination of a heel body having a recess generally cylindrical in form, and a top lift including a disc and an integral projecting stem having a series of sharp projections, the maximum cross dimension of the stem being such that when the stem is pressed into said recess the projections will embed in the wall of the recess to hold the top lift rigidly in place.

2. In a shoe heel construction, the combination of a heel body having a cylindrical recess in its bottom face, and a top lift including a disc and a stem integrally formed therewith, said stem being provided with a series of radial projections having relatively sharp edges and the dimensions of said recess and stem being so proportioned that said stem may be pressed into said recess and said projections will embed into the wall of said recess to hold said stem against turning movement.

3. In a shoe heel construction, the combination of a heel body provided with a cylindrical recess in the bottom face, and a top lift including a disc conforming to the

contour of the bottom of the heel body and an integral upwardly projecting stem from the top face of said disc, the periphery of said stem being provided with a series of sharp vertical ridges, the diameter of the stem measured at the periphery defined by the outer extremity of said ridges and the diameter of said recess being so proportioned that when the stem is pressed into said recess said ridges will embed in the wall of the recess to firmly hold the stem against vertical and turning movement.

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