

Dec. 7, 1926.

K. H. ANDERSON

1,609,681

SHOE HEEL

Filed May 25, 1925

Fig. 1.

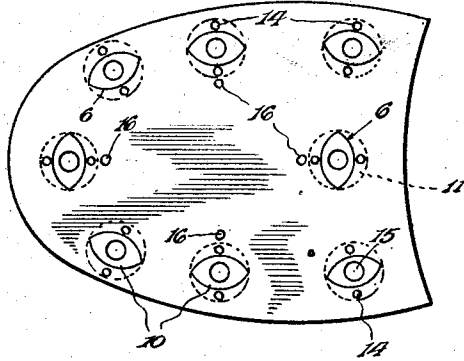


Fig. 2.

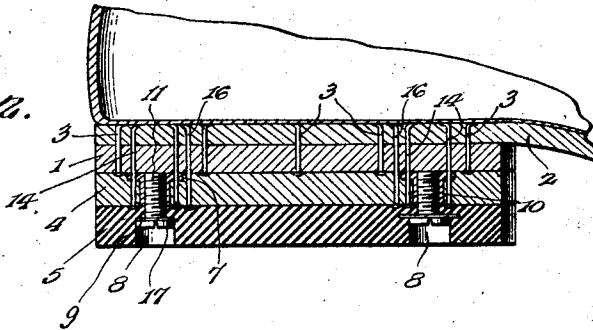


Fig. 3.

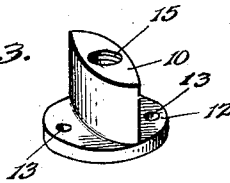
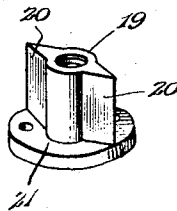


Fig. 4.



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SHOE HEEL.

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This invention relates to a shoe heel and one object of the invention is to provide improved means to securely hold a lower heel lift which will preferably be formed of rubber upon a shoe heel and to permit of this rubber heel being removed and a new one easily and quickly put in place.

Another object of the invention is to provide improved sockets which are so constructed that they may be inserted downwardly through openings formed in a lift above the rubber ground-engaging lift and be held against rotation in the openings in which they fit. This permits the heel-securing screws to be easily screwed into or out of place without the sockets turning with the screws.

This invention is illustrated in the accompanying drawing, wherein

Figure 1 is a view looking at the under face of the heel lift against which the rubber heel or lift is secured;

Fig. 2 is a longitudinal vertical sectional view through a portion of a shoe with the improved heel in place;

Fig. 3 is a perspective view of one of the sockets shown in use in Figs. 1 and 2;

Fig. 4 is a perspective view of a modified form of socket.

The heel which has been shown in Fig. 2 is provided with an upper lift 1 which is an ordinary leather lift and is secured to the heel portion of the shoe sole 2 by nails 3 which are driven upwardly through the lift 1 and shoe sole 2 and clinched at their upper ends. The portion of the heel which forms the subject-matter of this invention includes a lift 4 which may be formed of leather or any other suitable material and a lower lift 5. The lift 5 will, in the preferred form, be made of rubber but it may be a leather lift if so desired. The lift 4 has openings 6 formed in it which will be preferably spaced from each other about the lift, as shown in Fig. 1. The openings 6 are non-circular when viewed in cross section and may be elliptical, as shown in Fig. 1. At their upper ends the openings 6 are enlarged by counter-boring from the upper face of the lift so as to provide seats 7 which will preferably be circular when viewed from the upper face of the lift. The lower lift 5 is also provided with openings which are indicated by the numeral 8 and extend upwardly from the lower or ground-engaging face of the lift and have their upper end portions of a re-

duced diameter in order to provide each of the openings 8 with a shoulder 9 in spaced relation to the upper end of the opening. The openings 8 are spaced from each other to correspond to the spacing of the openings 6 so that the openings 8 are disposed in axial alinement to the openings 6.

The lower ground-engaging lift 5 is to be securely but releasably fastened to the lift 4 and in order to do so there has been provided sockets 10 which are inserted in the openings 6 of the lift 4 and securing screws 11 which are passed upwardly through the openings 8. The sockets 10 will conform in cross section to the contours of the openings 6 and, therefore, when the openings are formed, as shown in Fig. 1, the sockets will each be elliptical in cross section, as shown in Fig. 3. At its upper end each socket carries a circular head or flange 12 which is of a diameter and thickness to fit snugly in a seat 7 with its upper face flush with the upper face of the lift. The fact that the socket is non-circular in cross section and fits into a correspondingly shaped opening will prevent it from rotating but in order to permit the socket to be very securely held in place openings 13 have been formed in the flange 12 so that nails 14 which are driven upwardly through the lifts 4 and 1 and sole 2 may pass through the openings 13. A threaded bore 15 extends axially through the socket and will preferably be of a diameter corresponding to the diameter of the upper end of the opening 8 with which it registers. By having the sockets inserted downwardly through the openings 6, their flanges 12 will be disposed at their upper ends and when the lift is placed against the under face of the lift 1 and the securing nails 16 driven into place the sockets will be prevented from having any movement which might tend to loosen them in the openings. The nails 16 pass through the lifts 4 and 1 and shoe sole 2 and are clinched at their upper ends, as shown in Fig. 2. It will, therefore, be seen that when these nails are put in place the lift 4 will be very securely held. After the lift 4 has been put in place and secured, the lift 5 is placed against the under face of the lift 4 and the screws 11 are inserted through the openings 8 and screwed into the threaded bores of the sockets. These screws have heads 17 of a size to fit snugly in the enlarged portions of the openings 8 and the screws pass through metal washers

which may be disposed about the shanks of the screws and between the heads 17 and shoulders 9 of the openings, as shown at the left in Fig. 2, or may be embedded in the lift and have a diameter greater than the openings 8, as shown at the right in this figure. It will, therefore, be seen that the screws may be tightened without the lift being worn at the shoulders and that there will be less danger of the screws being dragged through the upper end portions of the openings 8 in case the lift should catch against an obstruction while walking.

While the elliptical form of socket illustrated in Fig. 3 has been shown in use in Figs. 1 and 2, it will be obvious that sockets of a different specific shape could be used, an example of which is shown in Fig. 4. Referring to Fig. 4, it will be seen that the socket which is indicated by the numeral 19 is to some extent substantially circular in cross section or end elevation but at opposite points is provided with tapered side extensions or ribs 20 which extend radially of the socket from the head 21 to the free end of the socket. By making use of this form of socket, the openings in the lift 4 can be very easily made by simply drilling circular openings in the lift and then filling or cutting side notches of the proper depth to receive the ribs 20.

There has, therefore, been provided a shoe heel including upper and lower lifts 4 and 5 which may be easily and quickly applied to a shoe or boot heel either at the time of making the shoe or boot or later after a cer-

tain number of lifts usually provided have been removed. When the lower ground-engaging lift is worn out, it is simply necessary to remove the screws and put a new lift in place.

Having thus described the invention, I claim:

In a heel construction, a lower ground-engaging lift and a lift seated against the upper face of said lower lift, the upper lift having openings formed therein, the openings being tapered in opposite directions in cross section and having its upper face recessed about the openings to form counter-sunk seats, sockets fitted in said openings and in cross section conforming to the contour thereof, each socket having an axially disposed threaded bore and at its upper end provided with an annular collar, the collars being seated in said seats and secured therein, said lower lift being provided with openings registering with the bores of said sockets and having their lower end portions enlarged to form annular abutment shoulders, and securing screws passing upwardly through the openings in said lower lift with their shanks screwed into the threaded bores of said sockets and their heads disposed in the enlarged lower end portions of the openings in abutting relation to the abutment shoulders to securely but removably hold the lower lift in place against the under face of the upper lift.

In testimony whereof I affix my signature.

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