April 8, 1930. A. W. CARLSON 1,753,692

HEEL

Filed March 20, 1928

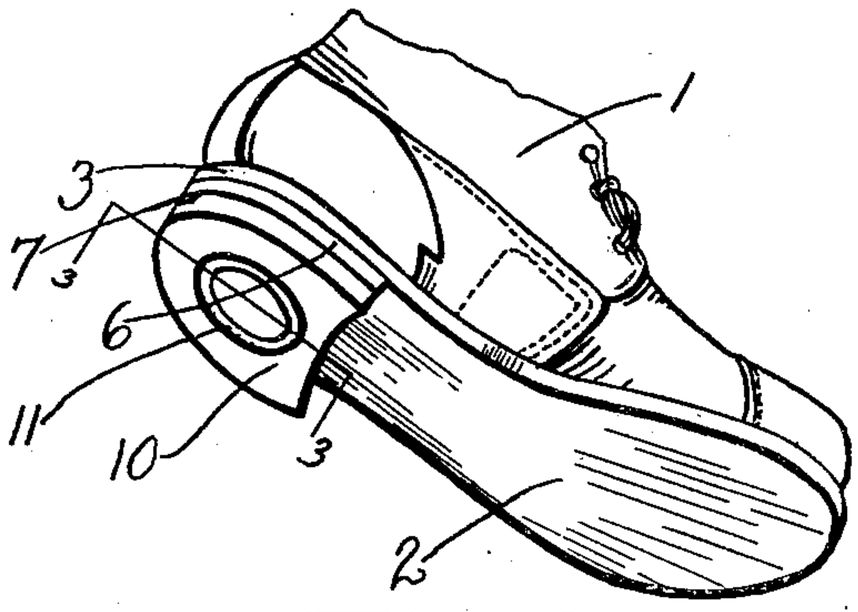


Fig 1

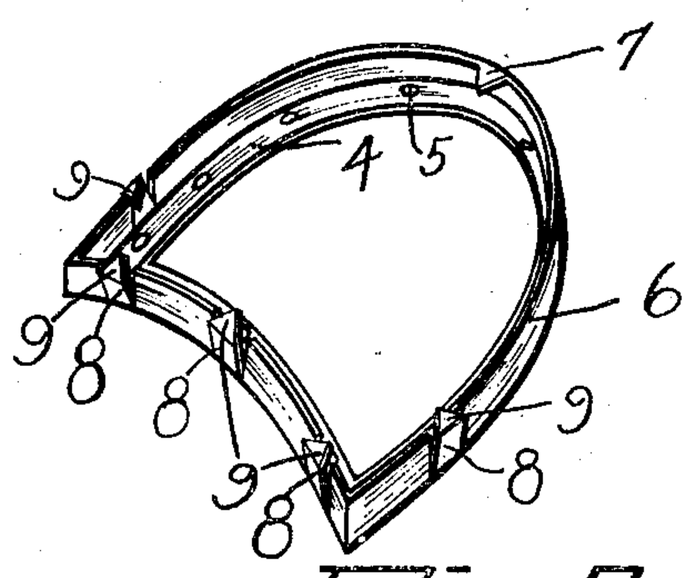


Fig 2

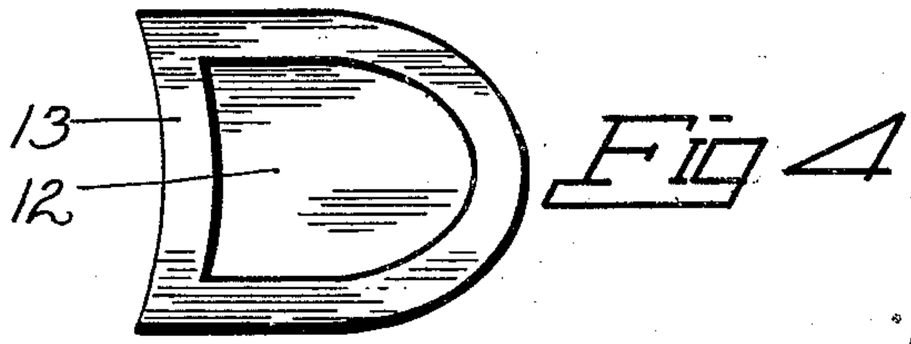


Fig 4

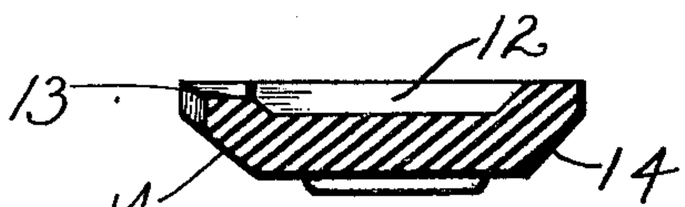


Fig 5

Fig 3

Andrew W. Carlson Inventor

By Herbert E. Smith Attorney

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UNITED STATES PATENT OFFICE

ANDREW W. CARLSON, OF SPOKANE, WASHINGTON

HEEL

Application filed March 20, 1928. Serial No. 263,072.

My present invention relates to improvements in heels for shoes and boots and of that type employing a rubber or composition heel member. The invention contemplates the use of a heel retaining frame or holder preferably of metal having means for permanent attachment to the shoe and designed to receive and retain the usual rubber heel. The holder is constructed in such manner that the rubber heel when worn may readily be removed and replaced by a fresh or new rubber heel, thus providing means whereby the heel portion of the shoe may have a neat and attractive appearance at all times and at comparatively low cost of maintenance.

The invention consists in certain novel combinations and arrangements between the shoe, the heel holder, and the heel, as will hereinafter be more fully set forth and claimed.

In the accompanying drawings, I have illustrated one complete example of the physical embodiment of the holder, together with two forms of rubber heels, wherein the parts are combined and arranged according to the best mode I have so far devised for the practical application of the principles of my invention.

Figure 1 is a perspective view of a shoe having the heel construction of my invention embodied therewith;

Fig. 2 is a perspective view in inverted position of the heel holder;

Fig. 3 is a side view of a shoe with the heel portion shown in section for convenience of illustration;

Fig. 4 is a plan view of a modified form of rubber heel; and

Fig. 5 is a sectional view of this modified form of rubber heel.

In order that the general assembly and arrangement of parts may readily be understood, I have shown a shoe designated as 1 provided with the usual sole 2 and heel portion 3. The holder shown in inverted position in Fig. 2 is a metal open frame as indicated in Fig. 2 and provided with an upper horizontal flange 4 in which are provided the necessary nail holes 5 for the nails N by means of which the holder is permanently attached at the heel portion of the shoe. The holder is fashioned with a retaining flange 6 conforming to the shape of the heel and at the rear central portion of this flange a rigid retaining prong 7 is fashioned integral therewith and designed to penetrate the rubber heel. At the sides and front portions of the retaining flange 6 are provided tongues as 8 which are struck from the flange and adapted to be flexed or bent outwardly therefrom prior to being fastened to the rubber heel. These tongues are provided with horizontal prongs 9 that are adapted to penetrate the sides and front portion of the rubber heel 10. The heel 10 is provided with a projecting bottom 11 and an upper recess 12 to insure a cushion action in addition to the shock absorbing functions performed by the rubber heel. The rubber heel is attached to the holder by first inserting it within the holder and pushing the heel against the prong 7 so that the latter will penetrate the rear side of the heel. Then after the heel is in position within the holder the tongues 8 are forced inwardly causing the prongs 9 on these tongues to penetrate the rubber heel for the purpose of retaining it within the holder.

After the heel has become worn, the tongues 8 may be bent outwardly by the use of a suitable tool to withdraw the prongs 9 from the worn rubber heel, and then the heel may be pried out of the holder. After a new heel is placed in position, the tongues 8 are again bent inwardly so that the prongs 9 will retain the new heel.

In Figs. 4 and 5, a modified form of rubber heel 13 is shown having beveled edges 14 to enhance the resiliency of this rubber heel and prevent or minimize the liability of causing the heel to be caught on the tread portion of stairs or steps, or from being caught against other objects.

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

The combination with the heel portion of a shoe, of a holder comprising a nailing flange having nail holes and nails for permanently securing the holder to the heel portion of the shoe, an integral retaining flange for the

holder having a rigid prong and a rubber heel engaged by said prong, a plurality of downwardly projecting flexible tongues struck from the retaining flange, and prongs on the lower free ends of said tongues engaging the rubber heel.

In testimony whereof I affix my signature.

ANDREW W. CARLSON.