May 2, 1939. J. B. GREIDER 2,156,532

SHOE

Filed April 25, 1938

Fig. 1.

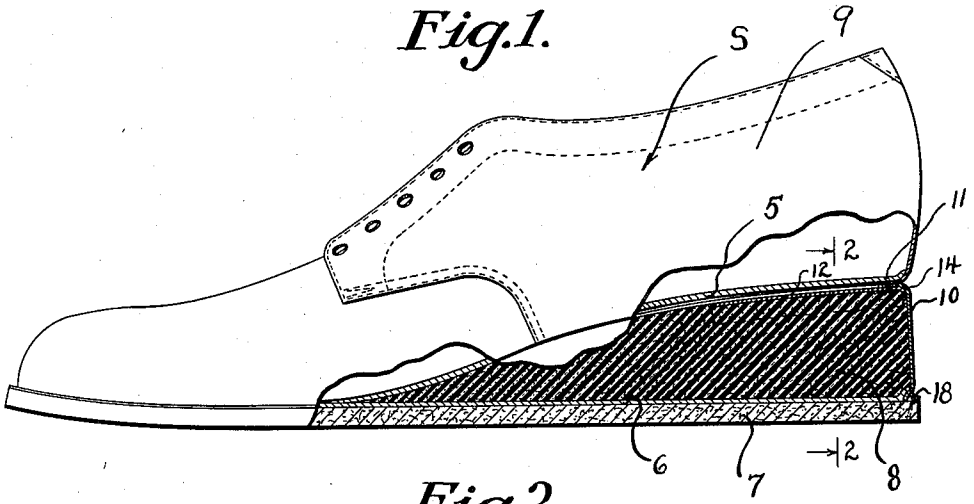


Fig. 2.

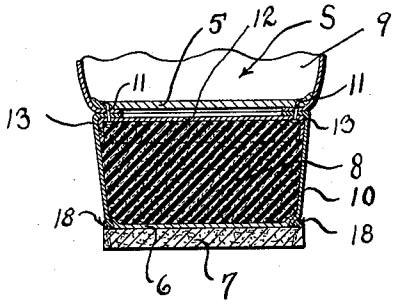


Fig. 3.

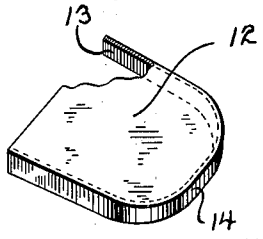
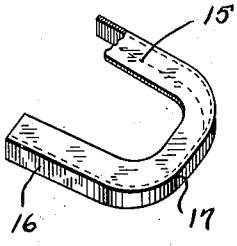


Fig. 4.



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UNITED STATES PATENT OFFICE

2,156,532

SHOE

James B. Greider, Racine, Wis.

Application April 25, 1938, Serial No. 204,090

4 Claims. (Cl. 36—2.5)

This invention appertains to shoes of the type having a wedge-shaped pad of cushioning material (such as sponge rubber) in the soles thereof, extending from the ball to and under the heel seat, as shown in my pending application Serial No. 194,411, filed March 7, 1938.

In shoes of the above character, much difficulty is experienced in holding the cushion pad of sponge rubber in place, and the same has a tendency to slip both laterally and longitudinally of the heel seat.

It is, therefore, one of the primary objects of my present invention to provide means of a simple and durable character for effectively confining the pad of sponge rubber in place against creeping movement.

Another salient object of my invention is to provide novel means for anchoring the pad of sponge rubber to the heel seat, which consists in the provision of a heel seat plate or coverpiece secured to the heel seat and having a depending marginal flange for gripping the sides and rear end of the pad.

With these and other objects in view, the invention consists in the novel construction, arrangement, and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawing, in which drawing:

Figure 1 is a side elevational view of a shoe constructed in accordance with my invention, parts of the view being shown broken away and in section.

Figure 2 is a fragmentary, transverse sectional view through the heel part of the shoe, taken substantially on the line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a detail perspective view showing one form of the heel seat plate for holding the cushion pad in place, parts of the plate being shown broken away and in section.

Figure 4 is a view similar to Figure 3, illustrating a slightly modified form of the heel seat plate, parts of this view being also shown broken away and in section.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter S generally indicates my improved shoe, and, as illustrated, the same includes an insole 5, a middle sole 6, and an outer wear sole 7. The forward end of the insole 5 can be formed relatively thin, and the same is secured to the upper surface of the middle sole at the toe by suitable adhesive. The pad 8 of cushioning material, such as sponge rubber, is placed between the rear part of the insole 5 and the middle sole 6. This pad 8 is of a wedge-shape and extends from the ball of the foot to and under the heel seat.

While I have termed the sole 6 a middle sole, so as to differentiate the same from the insole 5, it is to be noted, in effect, that the same functions as an insole. In some instances, a single insole can be provided, and the same can be split from the heel to the ball to form two heel sections, between which can be placed the sponge rubber cushion pad 8.

The rear part of the upper 9 is lasted under the heel seat of the insole, as is clearly shown in Figures 1 and 2, and the fore part of the upper is inseamed to the soles 5 and 6 in any preferred manner, such as is shown in my pending application mentioned above.

A flexible covering 10 of leather or the like is provided for the outer surfaces of the cushion pad 8, and the upper edge of the cover is turned in and is secured to the insole 5 in any desired manner, such as by the use of nails 11. After the flexible cover 10 is secured in position, I place a heel seat plate 12 over the outer face of the insole 5, and this heel seat plate covers the bottom surface of the heel seat and overlies the inturned portions of the upper 9 and the flexible cover 10. This plate can be secured in position in any preferred manner, such as by the nails 11. If desired, an adhesive can be employed for securing the heel plate in position. The marginal edge of the heel plate 12 is provided with depending side flanges 13 and a rear flange 14. This construction forms a seat or cup for receiving the pad of sponge rubber, and the flanges 13 and 14 extend about the sides and rear end of the pad. The plate 12 can be formed of a material having somewhat rigid characteristics, such as counter leather, stiff fibre, or the like.

Obviously, the side flanges 13 and the rear flange 14 engaging the pad 8 of sponge rubber will effectively hold the sponge rubber against lateral shifting movement and longitudinal shifting movement. Thus, the pad is effectively confined in place.

If preferred, the heel plate can take different forms, and, thus, in Figure 4 I have shown a heel plate 15, which is of a substantially U or horseshoe shape in plan. This type of heel plate is also provided with depending side flanges 16 and a depending rear flange 17, and the plate 15 is secured in place in the same manner as the plate 12.

The wear sole 7 is secured in place in any preferred manner, such as is shown in my mentioned pending application. As illustrated, a welt 18 is sewed to the marginal edge of the middle sole 6, and the wear sole is then sewed to the welt. The welt stitches also hold the flexible cover 10 for the pad 8 in place.

Changes in details may be made without departing from the spirit or the scope of my invention, but what I claim as new is:

1. In a shoe of the character described, an insole, a middle sole, a pad formed from cushioning material and of a wedge shape interposed between the insole and the middle sole at the rear part of the shoe, a flexible covering for said pad, and a heel seat plate secured to the insole having a marginal portion embracing the sides and rear end of the pad.

2. In a shoe of the character described, an insole, a middle sole, a pad of cushioning material interposed between the soles at the rear part of the shoe, a flexible covering for the pad attached to the insole and the middle sole, and a heel seat plate rigidly secured to the lower face of the insole having depending side flanges and an end flange for closely embracing and receiving a part of the cushion pad, whereby to hold the pad against lateral and longitudinal shifting movement, and to form a solid and substantial seat for the cushion pad.

3. In a shoe of the character described, an insole, a middle sole, a pad of cushioning material interposed between the soles at the rear part of the shoe, a flexible covering for the pad attached to the insole and the middle sole, and a heel seat plate rigidly secured to the lower face of the insole having depending side flanges and an end flange for closely embracing and receiving a part of the cushion pad, whereby to hold the pad against lateral and longitudinal shifting movement, said heel plate being formed from a material having rigid characteristics, whereby to form a solid and substantial seat for the cushion pad.

4. In a shoe of the character described, an insole, a middle sole, an upper lasted over the insole at the heel seat, a pad of cushioning material interposed between the insole and the middle sole, a flexible covering for said pad secured to the insole and to the middle sole, and a heel seat plate disposed within said flexible covering secured to the insole having depending side marginal flanges, and a rear marginal flange for engaging about the pad to hold the same in position.

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