July 15, 1941. D. CATAFFO 2,249,553

FOOT AND ANKLE PROTECTOR

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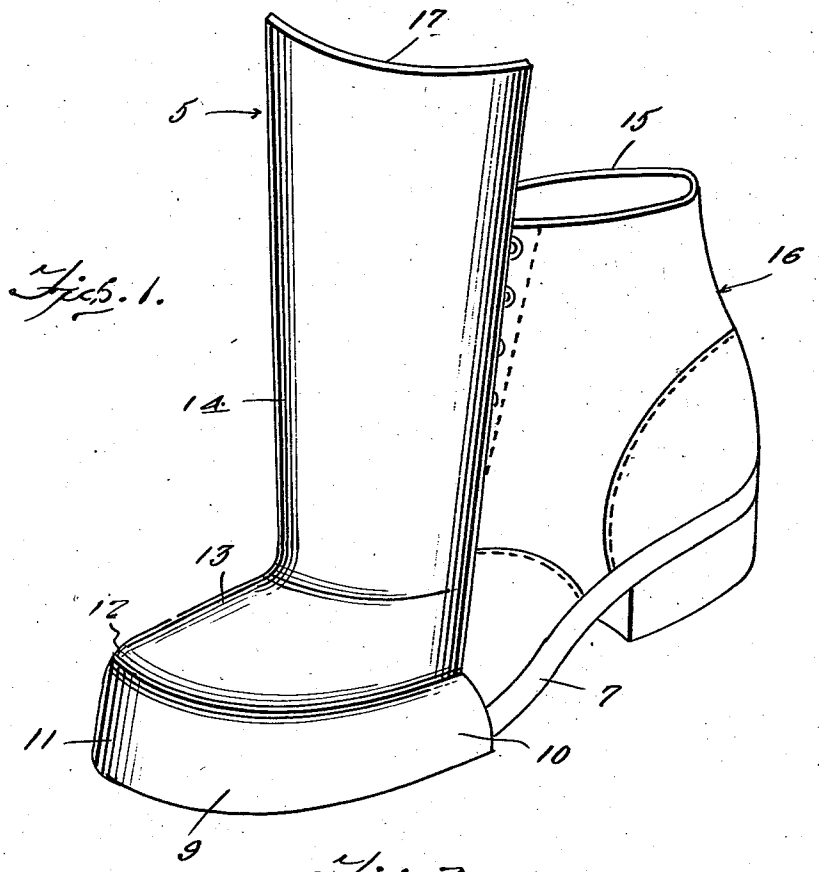


Fig. 1.

Fig. 2.

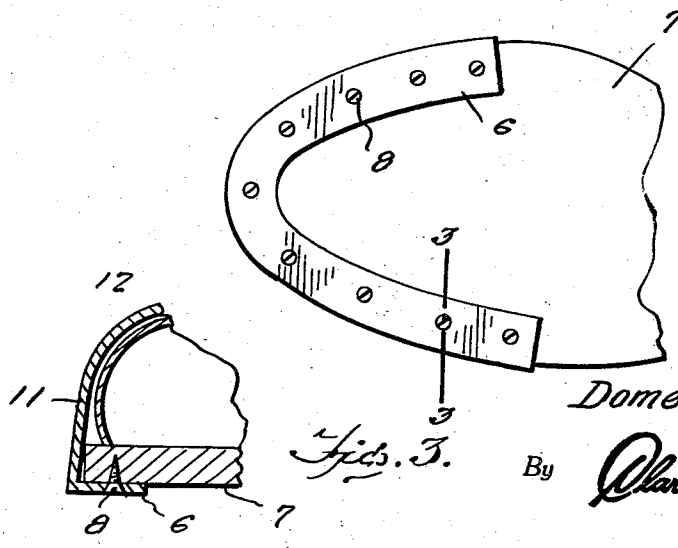


Fig. 3.

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FOOT AND ANKLE PROTECTOR

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4 Claims. (Cl. 36—72)

My invention relates to improvements in means for protecting the foot and ankle against the effect of falling objects or other injurious contacts incidental to a worker's occupation, and the primary object of my invention is to provide a simple and efficient arrangement of this character which provides positive protection against crushing of the foot by heavy objects, as well as injurious contact with the upper part of the foot and the ankle from such causes.

Other important objects and advantages of my invention will be apparent from a reading of the following description taken in connection with the drawing, wherein for purposes of illustration I have shown a preferred embodiment of my invention.

In the drawing—

Figure 1 is a general perspective view showing a protector in accordance with the present invention applied to a shoe.

Figure 2 is a fragmentary bottom plan view of Figure 1.

Figure 3 is an enlarged fragmentary transverse vertical sectional view taken through Figure 2 approximately on the line 3—3.

Referring in detail to the drawing, the numeral 5 generally designates the protector which comprises an attaching flange 6 whose laterally outward edge substantially conforms to the shape of the laterally outward edge of the sole 7 of the shoe to which the protector is to be attached or mounted, and this flange 6 is provided at intervals with openings receiving attaching means such as screws 8 to secure the flange in place on the shoe sole as indicated in Figures 2 and 3. The outer edge of the plate 6 merges into a vertical wall 9 which varies in contour and shape from a substantially curved portion 10 to conform to the contour of the shoe at this point, to a straight portion 11 at the extreme front, and the upper portion of this wall 9 merges a sharply curved portion 12 which, in turn, merges into an instep covering portion 13, from the rear and upper edge of which merges the ankle and lower leg shield 14 which is transversely curved and rises to a substantial height above the upper edge or top 15 of the shoe 16, the shield being sufficiently forwardly spaced from the front of the shoe to accommodate the trousers of the worker and provide a required amount of freedom of movement between the shield and the leg of the worker. The entire protector including the foot covering portion and the shield 14 is preferably made of substantial steel so as to withstand an impact of a heavy object without crushing the foot or injuring the ankle or lower leg of the worker wearing the same. It will be observed that should a heavy object drop on the foot covering portion, the lower edges of the side walls thereof have a direct bearing on the ground due to the location of the side walls, their formation, and their direct connection with the flange 6 which rests on the ground, so that no substantial portion of the strain of resistance to the impact is allowed to pass to the foot, but is transmitted directly to the ground. As shown in Figure 1, the shield 14 is slightly upwardly flared to provide a wider range of protection at the upper end 17 thereof.

Although I have shown and described herein a preferred embodiment of my invention, it is to be definitely understood that I do not desire to limit the application of the invention thereto, except as may be required by the scope of the subjoined claims.

Having described the invention, what is claimed as new is:

1. In combination, a shoe having a sole and a toe portion and an instep portion, a protector comprising a relatively rigid shell comprising a base plate secured to the bottom of the sole of the shoe around said toe portion, a hood rising around and over said toe portion and having its lower edges secured to said base plate, a shield rising from the rear part of said hood in forwardly spaced relation from said instep portion and upper of the shoe, said shield being thereby substantially forwardly spaced from the upper of the shoe.

2. The combination with a shoe having a sole, a toe, a vamp, and an upper; of a relatively rigid metal shell comprising a base secured to the bottom of the sole around the toe of the shoe, a hood rising from said base around and over the toe and the vamp of the shoe, and a shield rising vertically from the rear edge of said hood at a point substantially forwardly spaced from the front of the upper of the shoe, said shield being transversely curved.

3. The combination recited in claim 2 wherein said shield is wider at its upper end than at the juncture of its lower end with said hood.

4. The combination recited in claim 2 wherein said shield is wider at its upper end than at the juncture of its lower end with said hood, said shield being inflexible relative to said hood, and the upper end of said shield being elevated substantially above the top of the upper of the shoe.

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