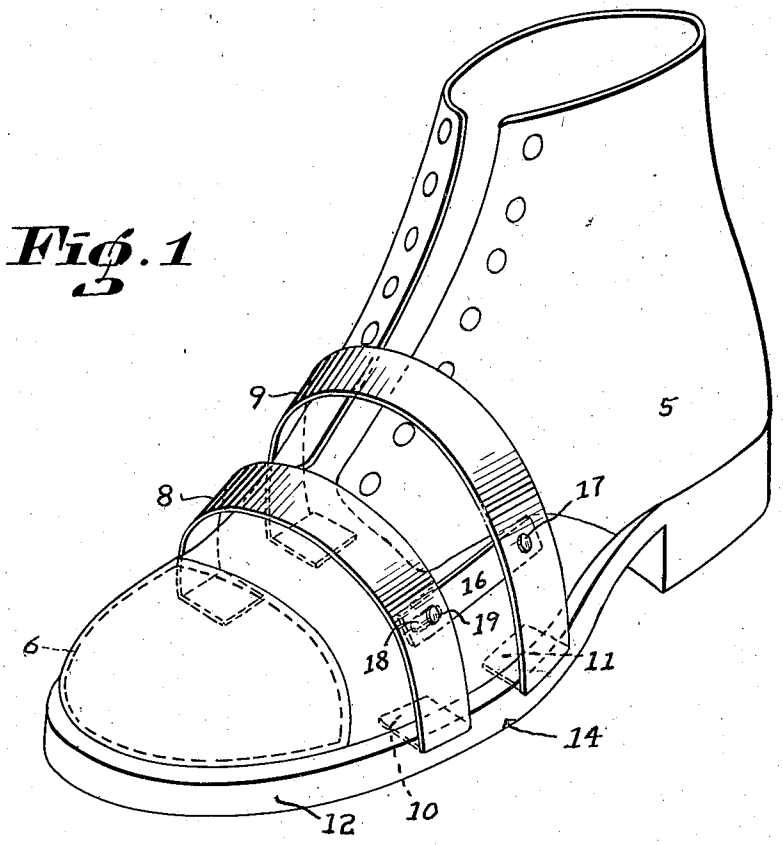
Jan. 29, 1946. W. A. PURINTON 2,393,810

INSTEP GUARD AND SHOE EMBODYING THE SAME

Filed Dec. 28, 1943

Fig. 1



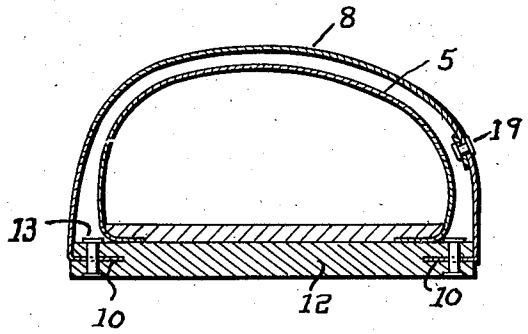


Fig. 2



Fig. 3

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INSTEP GUARD AND SHOE EMBODYING THE SAME

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7 Claims. (Cl. 36—72)

My present invention relates to the protection of the instep area of workmen's shoes.

It is well known that serious foot injuries frequently occur as a result of objects being dropped on the feet of the workmen. Proposals have been made to minimize the risk of this type of industrial accident, but with the exception of metal toe caps, these proposals were too cumbersome and costly to merit acceptance.

In accordance with my invention, I provide protection for the vulnerable instep area by the use of relatively thin and narrow members shaped to overlie closely the upper and having inturned ends anchored to the sole. The members are located on opposite sides of the break line of the sole and are preferably interconnected by a cross member on each side of the shoe above the sole pivoted to each of them to insure that their desired position is maintained. By this I am able to afford adequate protection for the instep area at low cost and without affecting the flexing of the sole and without making footwear cumbersome.

In the accompanying drawing, I have shown an illustrative embodiment of my invention from which its novel features and advantages will be readily apparent.

In the drawing:

Fig. 1 shows footwear in which the instep area is protected in accordance with my invention.

Fig. 2 is a cross-sectional view of the shoe shown in Fig. 1, and

Fig. 3 is a fragmentary view of a modified form of cross member.

At 5 I have indicated a work shoe of the type having a built-in metal toe cap 6 to protect the toes against injury.

I protect the instep area by means of guard members 8 and 9 the ends of which are inturned as at 10 and 11, respectively, so that they may be driven into the sides of the sole 12 and anchored thereto as by rivets 13 (Fig. 2). The members 8 and 9 may be made from any suitable lightweight stock providing sufficient strength for protection. In practice, relatively thin light-weight metal stock may be employed as this may be reinforced to provide substantial strength while keeping the weight factor to a minimum.

Both of the members 8 and 9 intermediate their inturned ends, are shaped to conform generally to the contour of that part of the upper they are to overlie. In practice, the member 8 is disposed intermediate the break line indicated at 14 of the sole and the toe cap 6 while the member 9 is located rearwardly of the break line. By this arrangement of the guard members, the instep area of the shoe is adequately protected without materially affecting the weight of the shoe or interfering with its flexibility. This leaves the workman free in his movements about his work.

As shown in Fig. 3, the end portions of the guard members may be formed to establish oppositely disposed marginal barbs 15 to prevent the ends of the members from working out of the sole after having been driven therein.

I have also provided means to brace the guard members. Such means may comprise a cross member 16 located on one or both sides of the shoe 5 and pivotally connected as at 17 to the guard member 9 and slotted as at 18 to receive the pivot 19 by which it is connected to the guard member 8. Footwear may be provided with such guard members at the factory, but as they are easily attached to the shoe they may be supplied to the workmen independently of the source of footwear. As they require but little metal to protect a substantial area and are easy to make, they provide inexpensive means to minimize a frequent cause of serious industrial accidents with their attendant interruption of production or the slowing up of the output of important war products.

What I therefore claim and desire to secure by Letters Patent is:

1. A shoe comprising an upper, a sole, and a pair of guard members of relatively thin and narrow metal stock to protect the instep area, the ends of each of which members are attached to opposite sides of the sole and which members are located on opposite sides of the break line, the intermediate portions of the members being shaped to conform to the contour of subjacent portions of the upper but being spaced out of contact therewith, and brace means connecting said members at a point above the sole without interfering with the flexing of the shoe.

2. The shoe of claim 1, in which the brace means comprises a member on at least one side of the upper pivotally connecting the guard members.

3. The shoe of claim 1, in which the brace means comprises a member on at least one side of the upper pivotally connected to one of the guard members and slidably and pivotally connected to the other of the guard members.

4. An instep guard for a work shoe comprising a pair of U-shaped metal members having ends adapted to be attached to opposite sides of the shoe sole on opposite sides of its break line in

spaced relation to its subjacent upper and a brace pivotally interconnecting said members.

5. A guard as in claim 4, in which the connecting means consists of a brace pivotally and slidably connecting said guard members.

6. The shoe of claim 4, in which the ends of the members are inturned to be driven into the side edges of the sole and are riveted thereto.

7. The shoe of claim 4, in which the ends of the members are to be driven into the side edges of the sole and are formed with barbs to anchor them thereto.

WILLIAM A. PURINTON.