

Dec. 6, 1949

H. C. PITTMAN

2,490,469

LADDERMAN'S SHOE INSERT

Filed Aug. 23, 1946

Fig. 1

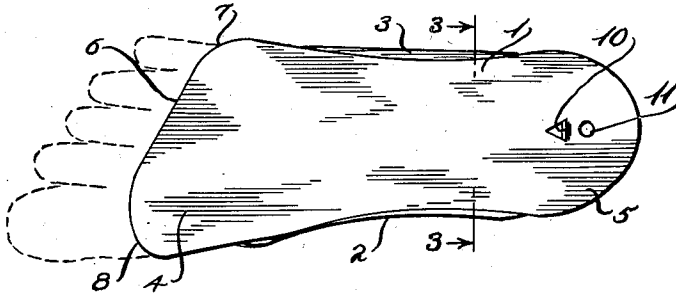


Fig. 2

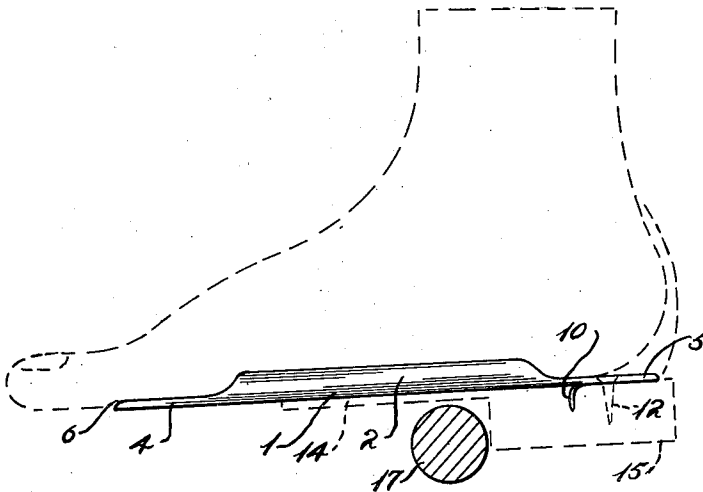
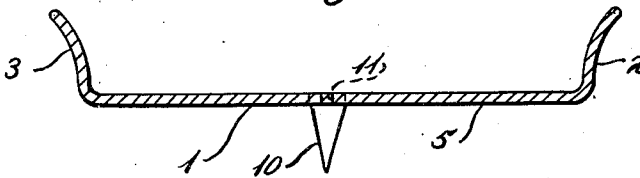


Fig. 3



INVENTOR.
HARRY C. PITTMAN

BY
W. Morrow, Bermer, Henderson
ATTORNEY'S

UNITED STATES PATENT OFFICE

2,490,469

LADDERMAN'S SHOE INSERT

Harry C. Pittman, Richmond, Ind.

Application August 23, 1946, Serial No. 692,470

1 Claim. (Cl. 36-76)

1

This invention relates to shoe inserts, and more particularly to devices for protection of the feet of a workman whose activities must be conducted while standing on a ladder or other supporting structure having portions which provide only small areas of contact with the shoes of a workman standing thereon.

Workmen, such as painters, carpenters, and the like, who must often spend long periods of time standing upon ladders, frequently experience great fatigue and inconvenience because of the limited area of contact between the rungs of the ladder and the soles of the shoes, which results in the entire weight of the body being borne on the same small areas of the feet.

Various devices have been proposed to obviate this difficulty, such as shoes with specially constructed soles, and removable outer soles for temporary attachment to ordinary work shoes.

Most of the prior devices of this character, however, are undesirably heavy, of awkward and clumsy appearance, or suffer from the disadvantage that they must be attached and removed from the shoes before and after each use.

An important object of this invention is the provision of devices which may be permanently inserted in the shoes for protection of the feet of the wearer, and which are thus invisible when in use.

A further object of the invention is the provision of devices of the kind referred to which are of small size and light weight, thereby affording maximum protection to the feet and minimum inconvenience in wearing.

A still further object is the provision of shoe inserts of the character described which allow complete freedom of movement of the feet within the shoes, and at the same time distribute the wearer's weight over the entire soles of the feet when standing on such limited areas as are afforded by the rungs of ladders.

The above and other objects of the invention will be apparent from the following description of the same when taken in connection with the annexed drawings, wherein:

Figure 1 is a plan view of one of the shoe inserts of the invention;

Figure 2 is a side elevation of the same;

Figure 3 is a lateral cross-sectional view of the same looking toward the rear or heel end thereof.

The invention comprises, briefly stated, a shoe insert formed of rigid material, having portions for engagement with the sole and heel of the foot, upturned side portions, and means for securing the insert to the shoe.

2

Referring to the drawings in greater detail, the insert is formed preferably of sheet steel or other rigid material, and has a body portion 1 with upturned side portions 2 and 3.

The body portion 1 is widened toward the forward end to provide an area 4 for contact with the sole of the foot, and has a rounded area 5 at the rear end for engagement with the heel.

The sole-engaging portion 4 is cut off at an angle at the front end, as indicated at 6, and has rounded corners 7 and 8. With this construction, the end 6 follows a line approximately along the base of the toes of the foot, as will be seen in Figure 1, and thus allows maximum freedom of movement of the toes while providing support over a large proportion of the area of the sole of the foot.

The upturned sides 2 and 3 are curved slightly outwardly and join the sole and heel areas 4 and 5 by curved fillets, so that smooth rounded areas engage the sides of the sole of the foot, and there are no sharp edges or projections to cause discomfort.

The heel area 5 is rounded and is provided with a downward projecting point 10 formed by a V-shaped cut in the metal which is subsequently bent down. A hole 11 is also provided in the heel area for the reception of a small wood screw 12. This hole 11 is conveniently countersunk to allow the head of the screw 12 to be driven in flush, in order that no rough edges will extend above the upper surface of the heel area.

The above-described inserts are, of course, made in pairs for insertion in left and right shoes and may be provided in as many different sizes as appear desirable.

The insert is used by placing it in the shoe in engagement with the sole 14 and heel 15 thereof, as best seen in Figure 2 of the drawings, the point 19 being forced downwardly into the heel and the wood screw 12 also being inserted through hole 11 into the heel.

When the shoes with the inserts in position are being used, the soles of the shoes may engage the rung of a ladder, as indicated at 17 in Figure 2. The force exerted between the sole 14 and the rung 17 is transmitted to the insert and distributed thereby over the entire sole area of the foot.

The apertured sides 2 and 3 form, with the body portion of the insert, a rigid structure capable of withstanding any tendency of the insert to buckle transversely due to the weight of the wearer being borne on the limited area provided by the rung of a ladder.

3

It will thus be apparent that the invention as herein disclosed provides a rigid and effective protection for the feet of workmen, which is invisible in use and can be readily applied to any type of ordinary shoes.

It will, of course, be understood that the above-described embodiment of the invention is intended to be by way of example only, and that various changes can be made in the same without departing from the spirit of the invention or the scope of the appended claim.

Having thus described the invention, what is claimed as new and desired to secure by Letters Patent is:

A stiffener for the sole of a shoe, said stiffener comprising a relatively rigid plate, said plate being of a length to extend from the rear end of the heel portion of the shoe sole to the rear end of the toe portion of the shoe sole, and means for securing said plate in place upon the shoe sole, said plate being substantially flat throughout its

4

length, said plate having a plan shape conforming to the outline of the top of the shoe sole within the shoe and being formed intermediate its ends with upwardly curved flanges on its inner and outer edges for protecting the corresponding edges of the foot of the wearer of the shoe at a level above the shoe sole.

HARRY C. PITTMAN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
318,562	Hummer	May 26, 1885
833,120	Buell	Oct. 9, 1906
1,077,845	Manblatt	Nov. 4, 1913
1,189,329	Winagle	July 4, 1916
2,053,910	Kingsbury	Sept. 8, 1936
2,129,556	Bartels	Sept. 6, 1938