To all whom it may concern:

Be it known that I, Gustaf E. Hedlund, a citizen of the United States of America, and a resident of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Shoes and Methods of Making the Same, of which the following is a specification.

This invention relates to shoes and the method of making the same, the particular object of the invention being to so construct the shoe that better support will be given to the wearer thereof.

The invention consists primarily in providing the shoe with an outer sole, the outer side of which has a thickness greater than that of the inner side.

The invention further consists in the insertion between the upper of the shoe and the outsole thereof of a wedge-shaped member extending from heel to toe.

The invention further consists in the improved method of making shoes with a wedge-shaped member extending the entire length thereof with the outer edge thicker than the inner edge and conforming to the shape of the outer edge of the outsole.

The invention further consists in certain novel features of construction and arrangement of parts which will be understood readily by reference to the description of the drawings and to the claims to be hereinafter given.

For the purpose of illustrating the invention, one preferred form thereof is illustrated in the drawings, this form having been found to give satisfactory and reliable results although it is to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized and the invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described except as required by the scope of the appended claims.

Of the drawings:

Figure 1 represents an elevation of a shoe embodying the principles of the present invention.

Fig. 2 represents an inverted plan of the same with the outsole removed.

Fig. 3 represents a partial transverse section of the shoe on line 3, 3, on Fig. 2.

Fig. 4 represents a plan of the outsole.

Fig. 5 represents a transverse section of the same.

Fig. 6 represents a plan of the wedge-shaped member.

Fig. 7 represents a transverse section of the same, and

Fig. 8 represents a plan of the outsole with the wedge-shaped member applied thereto.

Similar characters indicate like parts throughout the several figures of the drawings.

In the drawings, 10 represents the upper of a shoe having secured thereto an outsole made in two parts 11 and 12.

A welt 13 is secured to the upper 10 by the usual row of stitches 14 and the shoe is provided with the usual inner sole 15 and filler 16.

To the rear end of the outsole is secured in any well-known manner, a heel 17.

The part 11 of the outsole may be of any desired outline and the part 12 is a half sole and of the same length as the part 11 as indicated in Fig. 2, the inner edge of this member 12 being on a median line of the part 11 extending from toe to heel as shown in said Fig. 2.

This part 12 is wedge-shaped in cross section as shown in Figs. 3 and 7 of the drawings with the outer edge conforming to the outline of the outsole when the shoe is completed.

When said wedge-shaped member or part 12 is inserted between the part 11 of the outsole and the upper 10, the thickest part of said wedge-shaped member is at the outer edge of the part 11 as shown in Fig. 3 of the drawings and the thickness of this part 12 gradually decreases to the median line of the part 11.

In the manufacture of the shoe, the wedge-shaped member may be cemented to the upper part 10 of the shoe as indicated in Fig. 2 of the drawings or it may be cemented to the part 11 of the outsole as indicated in Fig. 8 of the drawings.

When this wedge-shaped member is cemented to the part 11 of the outsole or the upper part 10 of the shoe, it is in the form of a blank 19 as shown in Figs. 6 and 8 of the drawings.

If the wedge-shaped blank 19 is cemented to the upper part 10 of the shoe, the part 11 of the outsole is then superimposed there-
on and secured to the welt by means of a row of stitches 18 or in any other usual manner.

The heel portion of the two parts 11 and 12 of the outsole are secured to the upper 10 of the shoe in any well-known manner.

In case the wedge-shaped member 12 is first cemented to the part 11 of the outsole, as indicated in Fig. 8 of the drawings, the two parts 11 and 12 are then superimposed upon the upper 10 and secured to the welt 13 by a row of stitches 18 as previously described.

The outsole 11, 12 having been secured to the upper, the shoe is then presented to a rough rounding machine and the projecting portion of the blank is cut away by said machine until its outer edge conforms to the outline of the part 11 of the outsole.

The wedge-shaped member 12 is always secured to the part 11 with its thickest portion on the outer edge of the shoe and the inner portion of said part 11 is of equal thickness from its inner edge to a median line from the toe to heel thereof.

As a consequence of this wedge-shaped member being positioned between the part 11 of the outsole and the upper 10, the outer portion of each foot is raised and the wearer of the shoe is afforded a greater support thereby.

The tendency is at all times, owing to the inclination of the inner sole produced by the insertion of this wedge-shaped member between the outer portions of the parts 11 and 12, to cause the foot to be moved toward the inner side of the shoe.

Owing to this raising of the outer part of the inner sole, the foot is prevented from slipping outwardly and causing the toes and outer portion of the foot to be crowded against the inner surface of the upper.

In ordinary shoes the tendency is for the foot to move outwardly in the shoe against the inner surface of the upper which is very objectionable as corns are liable to be formed on the foot and where corns have already been formed the undue pressure thereon is liable to cause great pain to the wearer of the shoe.

Moreover the crowding of the foot outwardly in the shoe brings the weight of the wearer on the outer portion of the sole and causes that portion of the sole and heel to wear out more quickly than the inner portion of the sole and heel.

It has been found in practice that by the insertion of this wedge-shaped member and raising of the outer portion of the foot within the shoe, the weight of the wearer of the shoe is supported equally for the full width of the sole and consequently the sole and heel wear equally and gives longer life to the shoe.

As the sole and heel in a shoe constructed as shown and described does not wear out more quickly at the outer edge than at the inner edge as is usual in shoes as ordinarily constructed, it is obvious that said shoes may be worn much longer before it is necessary to send them to the repair shop.

While the longer life of the shoes is of great importance the greatest advantage of the shoe embodying the present invention is the greater support which it gives the wearer making it possible for the wearer to stand all day without becoming fatigued as is the case where shoes are worn in which the tendency is to throw the weight onto the outer side of the foot.

The shoes are particularly adapted for use of policemen, firemen and dentists and others who are constantly on their feet.

It is believed that the operation and many advantages of the invention will be understood readily without further description.

Having thus described my invention, I claim:

1. A shoe provided with an outsole and an upper and having a wedge-shaped member interposed between said outsole and upper at one side of a median line extending from toe to heel.

2. A shoe provided with an outsole and an upper and having a wedge-shaped member interposed between said outsole and upper at one side of a median line extending from toe to heel and of gradually increasing thickness from said median line to the outer edge thereof.

3. A shoe provided with an outsole and an upper and having a wedge-shaped member interposed between said outsole and upper at one side of a median line extending from toe to heel and secured at its outer edge to said outsole and upper.

4. The method of making shoes which consists in inserting a wedge-shaped member between the outsole and upper, securing said member at its outer edge to said outsole and upper.

5. The method of making shoes which consists in inserting a wedge-shaped member between the outsole and upper at one side of a median line extending from toe to heel, and then securing said member at its outer edge to said outsole and upper.

6. The method of making shoes having an upper part and an outsole part which consists in cementing a wedge-shaped member to one of said parts at one side of a median line extending from toe to heel, and then securing said outsole part to the upper part.

7. The method of making shoes which consists in cementing a wedge-shaped member to an outsole at one side of the median line extending from toe to heel, and then securing said outsole and wedge-shaped member to the upper.

8. The method of making shoes which
consists in cementing a wedge-shaped member to an outsole at one side of the median line extending from toe to heel, said wedge-shaped member having a gradually increasing thickness from said median line to its outer edge, and then securing said outsole and wedge-shaped member to the upper.

Signed by me at 294 Washington St., Boston, Mass., this 3rd day of March, 1921.

GUSTAF E. HEDLUND.

Witnesses:
WALTER E. LOMBARD,
NATHAN C. LOMBARD.