

R. H. ANDERSON.
TOE PROTECTOR.
APPLICATION FILED MAY 31, 1921.

1,420,302.

Patented June 20, 1922.

Fig. 1.

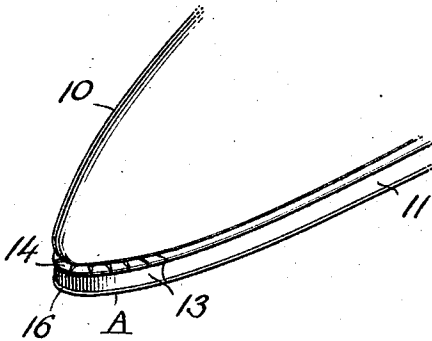


Fig. 2.

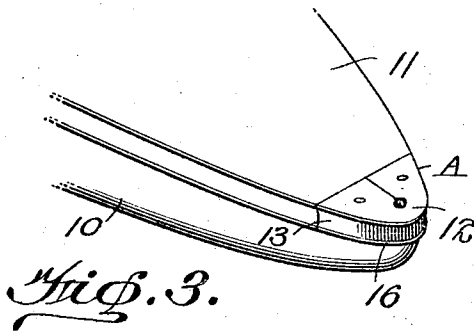
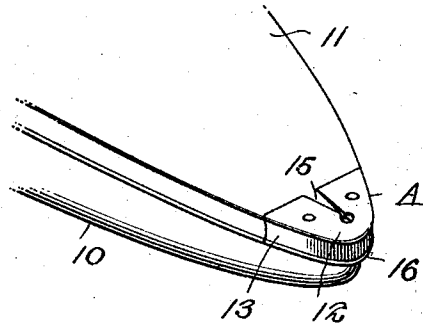


Fig. 4.

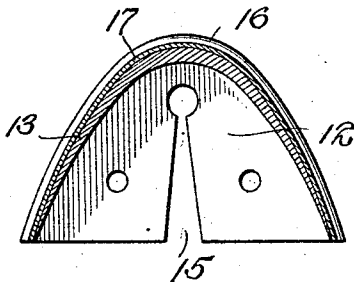
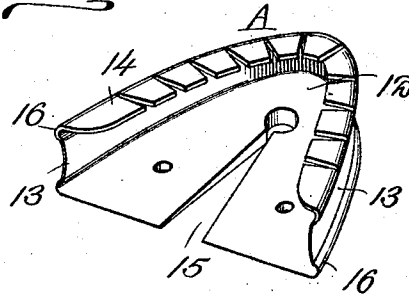
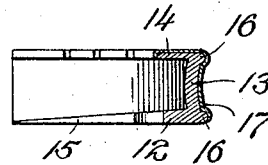


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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TOE PROTECTOR.

1,420,302.

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To all whom it may concern:

Be it known that I, ROY H. ANDERSON, a citizen of the United States, and resident of Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Toe Protectors, of which the following is a specification.

My invention relates to toe protectors for shoe soles and it is my purpose to provide improvements in the form of protector disclosed in my copending application filed July 25, 1919, and serially numbered 313,308. The protector illustrated and described in said application consists of a metallic member including a base portion thicker at its front than at its rear and adapted to underlie the sole, a vertical side portion tapering from its front or intermediate thickened portion rearwardly to thin edges and adapted to embrace the edge of the sole, and an inwardly directed flange at the upper edge of the side portion adapted to overlie the adjacent top face of the sole. Through the instrumentality of a protector of this form the toe portion of a shoe, after being worn away, may be restored to its normal shape by persons with only ordinary skill, thereby saving the trouble and expense of having the shoe formally repaired. Furthermore, such a protector, when applied to the sole of a shoe, is substantially invisible owing to the fact that its outer surfaces form smooth and even continuations of the corresponding surfaces of the sole, and its maximum wearing material is disposed at the point of greatest wear. It is now my purpose to provide a protector which is similar to and retains all of the advantages of my prior protector, but which is additionally advantageous in that its base portion is slotted so that it may be adjusted to fit soles of different lasts, and in that its vertical side portion is provided with upper and lower beads functioning, first, to enhance the strength, durability and rigidity of the protector, second, to protect the enameled intermediate portion of the vertical sides from contact with objects which might mar and chip the enamel, third, to retain the enamel on said vertical side portion, and lastly, to enhance the graceful appearance of the protector and provide a continuation of the beadings at the upper and lower edges

of the soles of certain styles of shoes, notably of the higher and more refined grades of women's shoes at present widely worn.

While my protector as originally conceived was designed particularly as an article for repair purposes it is in nowise limited to such use, but is capable of being placed on new shoes with the same facility that it is applied to worn ones, in which use the advantages flowing from the provision of the upper and lower beadings are of particular importance.

With the foregoing and other objects in view my invention consists in the novel features of construction which will be hereinafter more fully described, illustrated in the accompanying drawings and particularly defined in the appended claims.

In the drawings, wherein like characters of reference denote corresponding parts in the different views:—

Fig. 1 is a perspective of the toe portion of a shoe showing the improved protector applied;

Fig. 2, a view similar to Fig. 1 looking at the sole of the shoe;

Fig. 3, a view similar to Fig. 2 showing my protector adjusted to fit a sole of different last;

Fig. 4, an enlarged perspective of the protector detached;

Fig. 5, a section taken horizontally through the vertical side portion of the protector; and

Fig. 6, a longitudinal section taken centrally through the protector from front to rear.

Referring now to the drawings in detail, 10 designates generally a shoe and 11 the sole thereof, with the tip portion of which my improved protector A is adapted for association.

Protector A consists of a metallic member including a base portion 12 corresponding in shape to the tip of the sole to which it is to be applied, a vertical side portion 13 rising from the base portion and of a height corresponding to the thickness of the sole, and an inwardly directed flange 14 at the upper edge of the side portion preferably of a width to overlie the top face of the sole and extend inwardly thereon substantially to the upper of the shoe. The base portion 12 is thicker at its front than at its rear thin edge,

but the outer face of said base portion and the inwardly directed flange 14 are disposed in parallelism so that to whatever extent the base is thickened forwardly such thickened portion is disposed entirely within the protector. The vertical side portion 13 is thicker intermediately than at its ends, that is, it tapers from the front of the protector rearwardly to thin edges. The outer face of said vertical side is designed to form an even continuation of the edge of the sole and the thickened portion thereof, like the thickened portion of the base, is therefore disposed entirely within the protector. Openings are preferably formed in the base portion 12 to receive suitable fastening devices whereby the protector is secured in place, but if desired such openings may be dispensed with and the tangs constituting the flange 14 may be utilized as the sole securing means of the protector. In this connection it is obvious that the flange 14 may consist of the tangs illustrated or it may consist of a continuous strip-like portion, but the tangs are desirable when the flange constitutes the sole securing means for the protector inasmuch as they are capable of a firmer grip on the upper face of the sole than a continuous portion and are particularly desirable upon an adjustable protector to permit adjustments without straining or bulging of any portions thereof.

To render the protector adjustable the base portion 12 is provided with a slit 15 which opens through the rear of the base and terminates in a circular opening near its forward or tip end, said slit tapering from a relatively wide mouth portion at the rear of the protector to a relatively narrow portion where it enters said opening. This slit admits of the sides of the protector being squeezed together so that it will fit the tip portion of a sole of a lesser width or different last from the sole it fits when in its original form, as respectively illustrated to advantage in Figures 2 and 3 of the drawings.

Outwardly extending upper and lower beads 16 are formed on the vertical side portion 13 at its junction with the inturned flange 14 and the base portion 12, respectively, and serve to reinforce and stiffen the protector, enhance its graceful appearance and protect the vertical side portion against injury from contact with hard objects.

After completion the protectors are enameled and the beads perform the additional function of providing shoulders tending to hold the enamel 17 on the vertical side portion and prevent chipping of the same. Furthermore, some styles of shoes, notably the higher and more refined grades of women's shoes, are formed at the edges of the sole with upper and lower beads, as illustrated in Figures 1, 2 and 3 of the drawings, and when the protector is applied to shoes of this type the beads 16 serve to preserve the

beauty and grace of their appearance, forming even continuations of the sole beads as is apparent.

The beads 16 may be formed as solid projections upon the outer face of the vertical side portion or the metal of said portion may be stamped or otherwise pressed outwardly to form them, in which latter event groove-like depressions will be formed interiorly of the protector, and when the protector is applied to the sole the leather will be pressed into these depressions which will assist in retaining the protector firmly in place.

Fig. 4 of the drawings illustrates my invention in its preferred form, but it is apparent that, all other portions remaining as illustrated, the slit 15 may be eliminated and the base portion formed solid, or both the base portion and flange 14 may be formed solid, or, all other portions remaining the same, the beads may be eliminated, in fact, without departing from the spirit of the invention various portions and features of the protector may be used in combination or separately, but in the preferred form of the protector there exists a relative cooperation between certain portions thereof that renders its production in the form shown most desirable.

In applying the protector to a shoe the forward or tip end of the sole is skived to fit the base portion 12 so that when the protector is applied the bottom of the base constitutes an even continuation of the bottom of the sole. In most instances the leather of the sole is sufficiently soft that application of the protector will result in the sides of the sole being slightly compressed to allow the outer faces of the vertical side portion to constitute an even continuation of the sides of the sole, but if this cannot be accomplished the sides of the sole may also be skived to fit the thickened part of said vertical side portion. After the protector has been fitted to the sole it is secured in place either by the tangs forming the flange 14 or by suitable fasteners passed through the openings in the base and driven into the sole, or by both the tangs and fasteners as shown.

The portion 13 between the beads 16, is preferably concaved and when so formed its purpose is twofold: First, it gives a true likeness to the edge of a beaded sole to thereby render a nearer perfect continuation of the same and, secondly, its retaining effect on the enamel is more pronounced than if said portion were formed straight as it may be if so desired.

I claim:—

1. A protector adapted to be secured to the toe portion of a shoe sole, comprising a metallic member including a base portion adapted to underlie the sole, a vertical side portion adapted to embrace the edge of the

sole, and a bead formed on and extending contiguous with and adapted to protect the surface of said side portion.

2. A protector adapted to be secured to
5 the toe portion of a shoe sole comprising a metallic member including a base portion adapted to underlie the sole, a vertical side portion adapted to embrace the edge of the

sole, and a pair of beads formed on said side portion adjacent to its upper and lower 10 edges, said beads being adapted to protect the surface of said side portion.

In testimony whereof I hereunto affix my signature.

ROY H. ANDERSON.