

No. 898,233.

PATENTED SEPT. 8, 1908.

I. LINCOLN.
HEEL PROTECTOR.
APPLICATION FILED JAN. 30, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

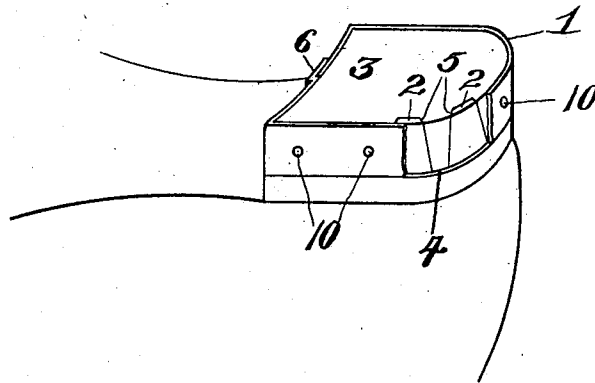


Fig. 2.

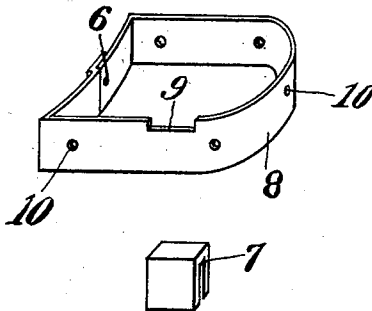
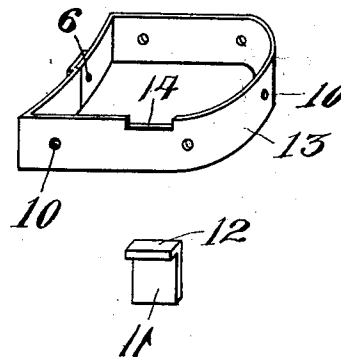


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4

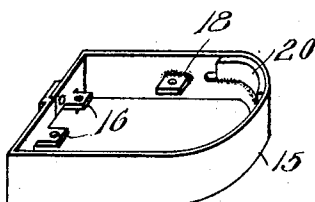


Fig. 5.

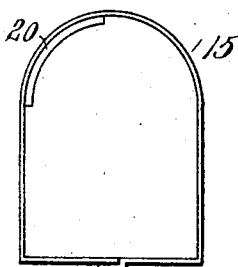


Fig. 6.

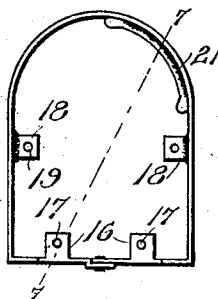


Fig. 7

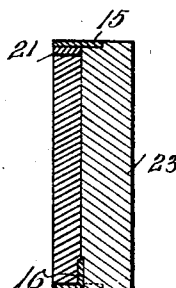


Fig. 9.

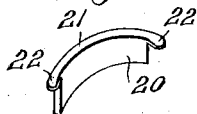


Fig. 10.

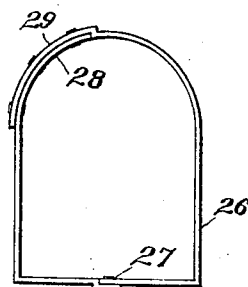
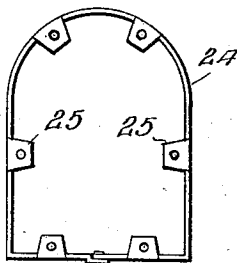


Fig. 8.



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UNITED STATES PATENT OFFICE.

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HEEL-PROTECTOR.

No. 898,233.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed January 30, 1907. Serial No. 354,917.

To all whom it may concern:

Be it known that I, IRVIN LINCOLN, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Heel-Protectors, of which the following is a specification.

The invention relates to an improvement in heel protectors designed primarily to prevent the usual uneven wear to which the heel is subjected.

The main object of the present invention is the provision of a heel protector which may be quickly and evenly applied to any heel and which in use will prevent the wear of one portion of the heel in excess of another portion, thereby avoiding deterioration of the shape of the shoe incident to use after uneven wear of the heel.

The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a bottom perspective of a portion of the shoe illustrating the application of my invention to the heel thereof, a portion of the securing band being broken out to show the application of the wear plates, Fig. 2 is a perspective view of a slightly different form of securing band and wear plate, Fig. 3 is a similar view of another form of band and wearing plate. Fig. 4 is a perspective view of another form of heel protector, Fig. 5 is a bottom plan view of the same with the heel in place, Fig. 6 is a top plan with the heel removed, Fig. 7 a section on line 7—7 of Fig. 6, with the heel in position, Fig. 8 is a modification of the band shown in Fig. 4. Fig. 9 is a perspective view of the form of wear plate shown in Fig. 6. Fig. 10 is a plan of a modified securing band.

Referring particularly to the drawings, wherein similar reference numerals indicate like parts throughout the several views, my improved heel protector, in the form illustrated in Fig. 1 comprises a securing band 1, preferably a thin metallic strip, and a series of wear plates 2, preferably of metal capable of resisting the wear to which the shoe is to be subjected. The heel 3 is reduced in sectional dimensions by cutting away the outer surface thereof to provide a channel 4 equaling

in dimensions the dimensions of the band 1, so that when said band is in place in the channel the surface thereof coincides with the exposed surface of the heel. The channel 4 extends to the lower surface of the heel, whereby the lower edge of the band 1 terminates coincidently with the lower surface of the heel. In that portion of the heel which is subjected to most wear in use I form recesses 5, extending to the lower surface of the heel and co-extensive in height with that of the channel 4. The walls of the recesses 5 incline outwardly relative to each other in an upward direction, and toward each other in transverse section, as will be clearly seen in Fig. 1. The wear plates 2 are designed to snugly fit within the recesses 5, being exactly co-extensive with said recesses so that their relatively outer surfaces form a continuation of the channel 4. The band 1 is seated in the channel 4 after the wear plates are placed in position, the ends of the band preferably overlapping at the forward portion of the heel and being secured by a nail or other suitable fastening, as 6. As the band snugly fits the channel 4 it is obvious that the wear plates 2 are held against movement from the recesses 5, the angular inclination of said plates serving to prevent movement of the plates longitudinally relative to the recesses. The plates are thus securely held in position on the heel through the formation of the recesses and the use of the securing band 1, though it is obvious that said plates may be removed when desired by a removal of the band and the lateral movement of the plates relative to the recess.

In Fig. 2 is shown a slightly modified construction in which the wear plate is in the form of a U-shaped member 7, preferably of equal sectional dimension throughout. With this form of wear plate the recess 5 in the heel will be of equal width throughout its length, as will be evident, and will, of course, be of a depth to receive only one of the arms of the plate. The securing band 8 in this form is of a size to fit the arms of the plate 7, so that when said band is in position one of the arms thereof will rest against the outer surface of the band. The band 8 is also preferably formed in its upper edge with a notch 9 to receive the connecting bar of the arms of the

wear plate 7. The wear plate in this form is thereby securely held in position by a direct engagement with the band through the medium of the notch 7, said band being preferably formed with a series of holes 10 for the reception of additional nails when desired.

In the form shown in Fig. 3 the wear plate 11 is in the form of an inverted L-shaped plate, the upper edge thereof being projected laterally to provide a flange 12. This plate is secured in a recess formed in the edge of the heel similar to the recess 5 in the preferred form but co-extensive in dimensions with that of the plate 11. The band 13 in this form is notched in the relatively upper edge at 14 to receive the flanged portion 12 of the plate, thereby securing the plate against independent movement longitudinally relative to the heel. The wear plates of each of the forms described are thus secured against independent movement relative to the heel by the securing band and the form of the recess in the preferred form of the invention, and by the securing band alone in the modified form. In either construction the securing band is effective as a means for preventing independent movement of the wear plates. It is, of course, to be understood that any number of wear plates desired is contemplated, and that their position on the heel is to be arranged with particular regard to that portion of the heel most subjected to wear in the individual user.

In the form shown in Figs. 4 to 7 inclusive the band 15 is similar to that described in connection with the preferred form, the straight edge of which is preferably cut away from the upper edge to leave ears 16, which are bent laterally to project from the inner side of the band. These ears are preferably formed with holes 17 for a purpose which will presently appear. The band 15 is further provided at opposing points on its side edges with ears 18 also perforated at 19, said ears being practically co-extensive with the ears 16 and being soldered or otherwise secured to the inner surface of the band about midway the height of the latter. The wear plate in this form is a strip of suitable material 20 soldered or otherwise secured to the interior surface of the band to arrange the wear portion in alinement with the lower edge of the band. The wear plate is practically half the width of the band, and is provided on its lower edge with a holding strip 21 of a length to extend beyond the ends of the wear plate in the form of widened lips 22. In use this form of band is secured to the heel by disposing the tongues 16 and 18 between the successive layers of heel material, as clearly shown in Fig. 7, the band being further secured if desired by nails driven through the openings in the respective tongues and into the rela-

tively upper layer 23 of the heel before the application of the outer or lower layer. The lips 22 of the holding strip of the wear plate are also disposed between the respective layers of the heel material, thereby securing said wear plate more firmly in position.

In Fig. 8 the heel protector is shown in the form of a band 24 with which any of the forms of wear plates desired may be used, though I prefer the application of that form shown in Fig. 4. The relatively upper edge of the band of this form of heel protector is formed with a series of inwardly projecting tongues 25 designed to rest against and be secured to the upper layer of heel material, the lower layer of heel material underlying the tongues and serving to secure the band firmly in place. Any of the bands described may be used with a composite heel made up of separate layers of different materials, as wood and leather or the like, the particular construction of band providing for the effective securing of the layers together in a manner to prevent disconnection of the protector.

In Fig. 10 is shown a modified form of securing band in that said band as 26 is formed in two separate parts connected at one end as at 27, with the imposing ends extended to form comparatively long overlying portions 28 and 29, which are designed to be secured together in any desired manner. This form of band provides an effective and strong protector particularly adapted for heavy wear.

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

1. A heel composed of sections, one section being smaller than the other to provide a recess extending continuously and entirely around the heel and of uniform depth, said recess having a notch in its vertical wall, in combination with a band proportioned to fill the recess with its outer surface flush with the outer surface of the larger section of the heel and with its bottom edge flush with the bottom surface of the smaller section, means for securing the band firmly on the heel, and an imperforate wearing element disposed in the said notch and arranged under the band and held in place by the latter.

2. A heel composed of layers, the bottom one of which being smaller than the other to form a peripheral recess extending horizontally around the entire heel, there being a vertical recess in the inner or vertical wall of the horizontally extending recess and of a length equal to the width of the latter, in combination with a band disposed in the horizontal recess and fastened to the heel, and an imperforate wear plate detached and separate from the band and fitted in the vertical recess and bearing directly on and held in place by the band.

3. A heel provided with vertically extend-

ing recesses tapering downwardly, wear
plates corresponding in shape to the recesses
and prevented from moving longitudinally
therefrom by the converging walls of the re-
cesses, a band encircling the heel and bearing
5 on the plates for preventing lateral displace-
ment of the latter, and fastenings extending
through the band and piercing the heel to

hold the band tight against the plates and
heel.

In testimony whereof, I affix my signature
in presence of two witnesses.

IRVIN LINCOLN.

Witnesses:

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B. H. BROWNELL.