No. 791,539. PATENTED JUNE 6, 1905.

W. H. COLBATH.

WEAR PROTECTOR FOR BOOTS OR SHOES.

APPLICATION FILED NOV. 10, 1904.

Fig. 1.

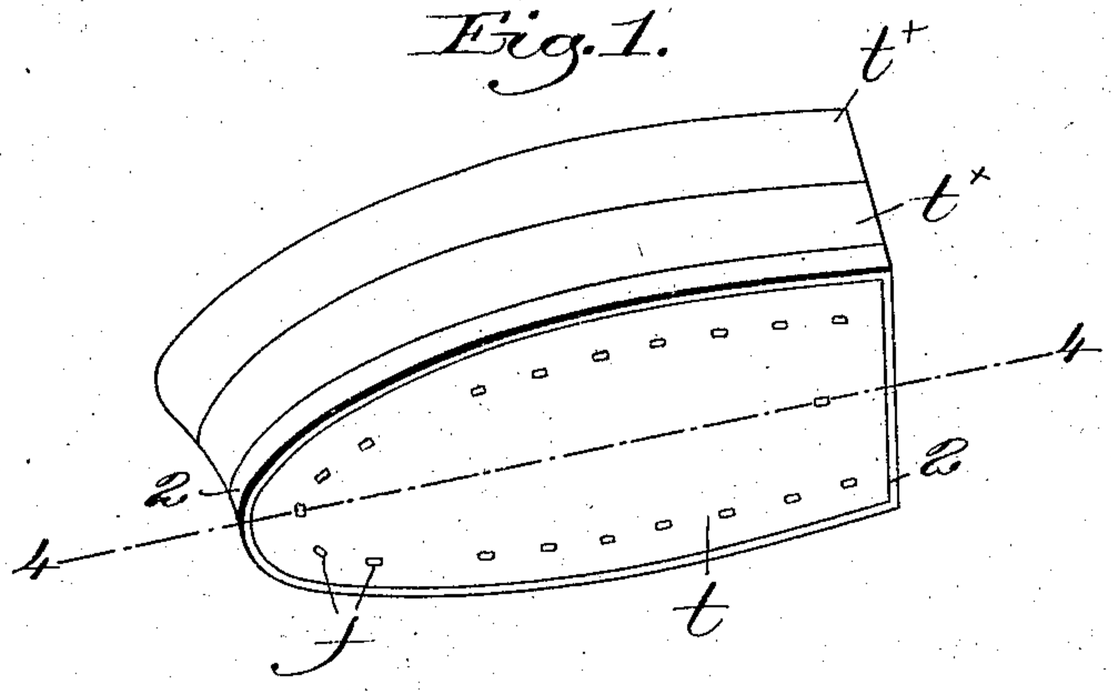


Fig. 2.

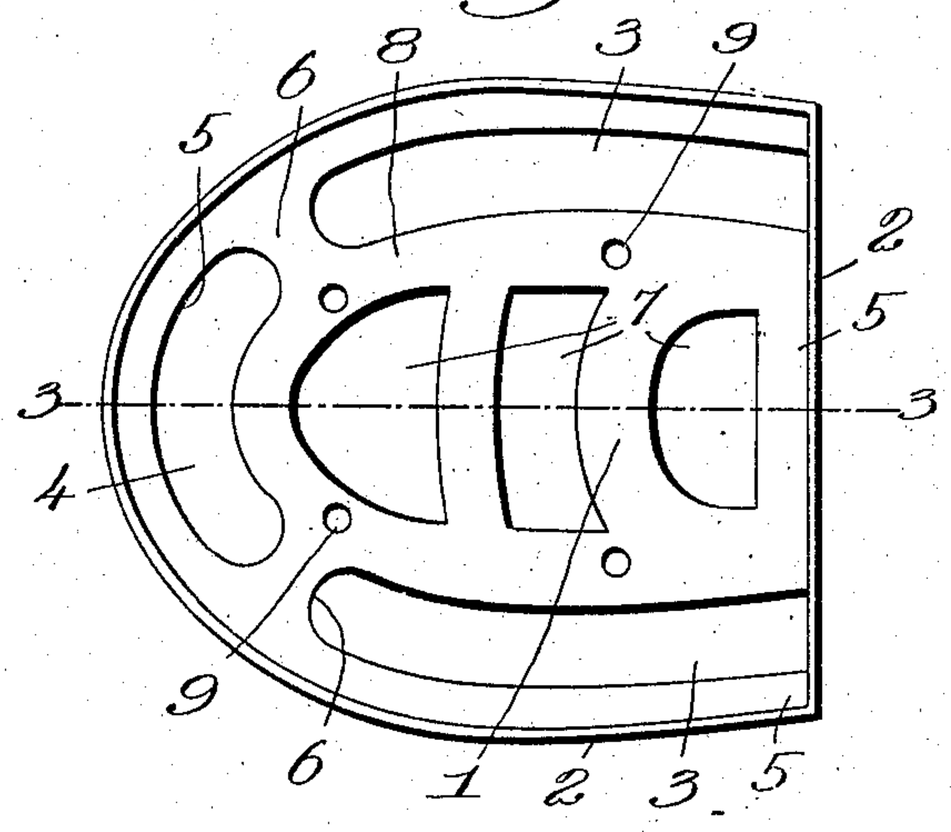


Fig. 3.

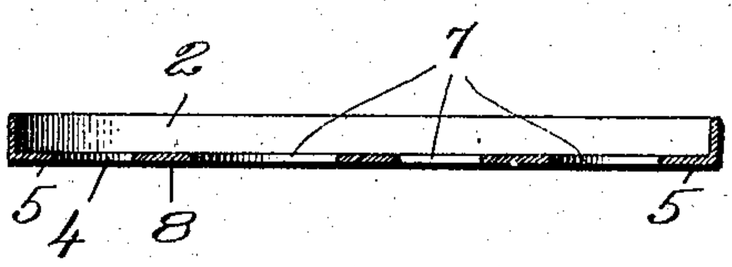
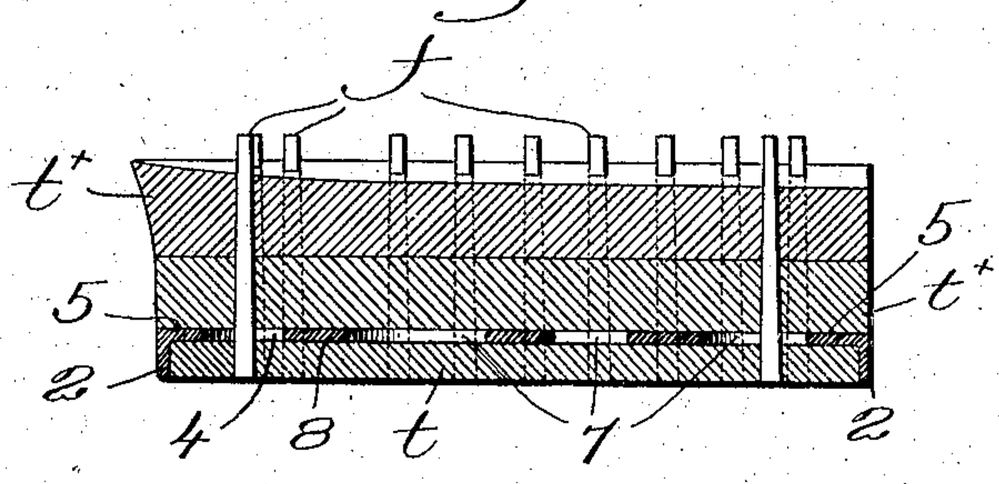


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. COLBATH, OF COCHITUATE, MASSACHUSETTS.

WEAR-PROTECTOR FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 791,539, dated June 6, 1905.

Application filed November 10, 1904. Serial No. 232,145.

To all whom it may concern:

Be it known that I, WILLIAM H. COLBATH, a citizen of the United States, and a resident of Cochituate, county of Middlesex, State of Massachusetts, have invented an Improvement in Wear-Protectors for Boot or Shoe Heels, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a novel wear-protector applicable to the heels of boots and shoes, and more particularly those intended for use in performing heavy rough work, the construction of the wear-protector being such that it can be applied to and used in connection with machine-made heels.

Wear-protectors of the general type to which my invention relates have heretofore been made with a rim or tread portion conforming to the contour of the top lift, and a broad inturned flange has been extended from the base of the tread portion and provided with a row of holes to receive the nails or fastenings through the heel. The heel is then built up by piling a number of lifts one upon the other. The protector is laid on the topmost one with the rim or tread portion uppermost, and the nails are inserted in the holes in the flange and driven through the lifts by hand. The top lift is then laid within the rim of the protector and secured by additional nails driven through the portion of the top lift within the edges of the flange. It is impossible to use such protectors in a heel nailing and compressing machine (which is generally used in the economical manufacture and attachment of heels to boots or shoes) for two reasons. In the first place, in such a machine the built-up heel, with its top lift, is inserted in proper position and compressed, after which the fastenings are inserted in one or more gangs while the heel is under compression, and the heel is directly attached to the shoe or by a separate operation, as desired. Consequently the holes in the flange of the protector cannot be made to register with the nails or other fastenings, as the top lift covers such holes and the slightest displacement of the protector or heel will throw the holes out of the paths of the fasteners. Again, even if this objection could be overcome the compression of the heel would force the central portion of the top lift into the space between the edges of the flange and the completed heel would show a recess or sunken portion in the face of its top lift. The necessity for applying such protectors by hand for the reasons set forth not only increases the cost of the shoe, but prevents the use of the heavily-compressed compacted heel.

In accordance with my invention I have so constructed the wear-protector that the top lift will be supported at its central portion when compressed and have made provision for the insertion of a gang or gangs of nails or other fasteners by a machine. Hand labor is thus dispensed with, reducing the cost of production and securing the benefits of the compressed and machine-fastened heel.

The novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a perspective view of a heel provided with a wear-protector in accordance with my invention. Fig. 2 is a top or plan view of the protector, the tread portion being uppermost. Fig. 3 is a longitudinal section thereof on the line 3 3, Fig. 2; and Fig. 4 is a longitudinal section on the line 4 4, Fig. 1.

The wear-protector is made of metal, either cast or stamped or struck up from metallic plate of suitable thickness, and comprises a flat body portion 1, having a raised rim or tread portion 2 preferably entirely surrounding the edge of the body and conforming to the contour of the top lift. The tread portion is preferably of such depth that its top will lie substantially flush with the face of the top lift *t*, Figs. 1 and 4, in the completed heel, the tread portion engaging the edges of the top lift. As shown in Fig. 2, the body is provided with elongated broad slots or openings 3 4 near the sides and the curved outer end thereof, leaving a relatively narrow inturned flange 5 at the base of the tread portion. The central portion of the body, which forms the

inner edges of the openings, is connected with the flange by webs 6, two of such webs being shown, near the outer end of the body to strengthen the same. If desired, this central portion may be cut out for the sake of lightness, as at 7, but leaving a substantially horseshoe-shaped support 8 along the inner edges of the openings 3 4, stiffened by cross-bars between the openings 7. Holes 9 are formed in the inner or central part of the body for a purpose to be described.

In using the protector the heel is built up by superposing a sufficient number of lifts, as $t^{\times}$, Figs. 1 and 4, and the wear-protector is then applied and secured in place by one or two nails driven through the holes 9. The top lift is then laid on the body within the tread portion 2, and the heel is ready to be compressed and fastened. During compression the top lift is supported adjacent its edges by the flange 5 and at its interior or central portion by the support 8, so that the compression will not depress or sink the central portion of the top lift. The nails or other fastenings *f* are then driven, the openings 3 4 being located along the line of such fastenings, and the latter can pass unobstructedly and freely through such openings into the body of the heel.

It will be manifest that a wide margin of safety is provided by the width of the openings 3 4, for a considerable displacement of the heel can occur without any obstruction to the insertion of the fastenings.

At the points opposite the webs 6 a fastener is omitted from the gang, but without in any way impairing the strength of the heel.

The heel provided with my improved wear-protector can thus be handled by machinery just as it would be without the protector, the only hand labor required in addition to that necessary to build up the lifts being that required to place the protector in position and apply the top lift.

My invention is not restricted to the precise construction herein shown and described, for various changes or modifications may be made by those skilled in the art without departing from the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a wear-protector for boot and shoe heels, comprising a flat metallic body provided with a raised tread portion adapted to embrace the side edges, breast and rear end of the top lift and having broad elongated openings adjacent the sides and rear end of the tread portion to permit unobstructed passage therethrough of the heel-fastenings when inserted in gangs through the top lift and a central support for the top lift, connected at the breast and rear end with the tread portion.

2. As a new article of manufacture, a metallic wear-protector for boot and shoe heels, having a raised tread portion adapted to embrace the edges of the top lift and lie substantially flush with its face, an inturned, narrow flange at the base of said tread portion, to support the top lift adjacent its edges, and means to support the center of the top lift, separated laterally from the flange at the side and the main portion of the rear end, to provide wide, elongated openings for the reception of gangs of heel-fastenings.

3. As a new article of manufacture, a metallic wear-protector for boot or shoe heels, having a raised tread portion adapted to embrace the breast, sides and rear end of the top lift and lie substantially flush with its face, an inturned, narrow flange at the base of said tread portion to support the top lift adjacent its edges, and a central support for the top lift, connected at the breast and outer ends with the flange and separated from the side flanges to provide elongated openings for the reception of the heel-fastenings.

4. As a new article of manufacture, a wear-protector for boot and shoe heels, comprising a flat metallic body having wide, elongated openings adjacent its sides and outer end, to permit the unobstructed passage of the heel-fastenings in gangs and a raised tread portion along the edge of the body, to engage the edges of a top lift, the portion of the body within the openings being connected with the tread portion at the breast and outer ends, and serving to support the top lift when the heel is compressed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM H. COLBATH.

Witnesses:

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