No. 744,850. PATENTED NOV. 24, 1903.

E. P. WORTH.

ARTICLE FOR USE IN THE MANUFACTURE OF BOOTS OR SHOES.

APPLICATION FILED FEB. 5, 1902.

NO MODEL.

Fig. 1.

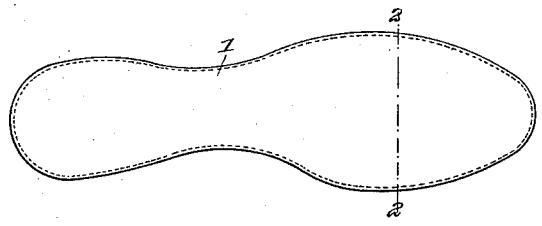


Fig. 2.

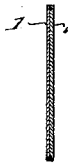


Fig. 3.

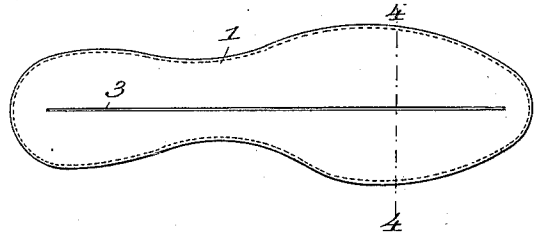


Fig. 4.

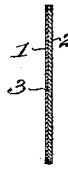


Fig. 5.

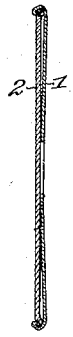


Fig. 6.

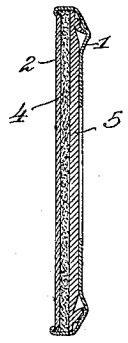
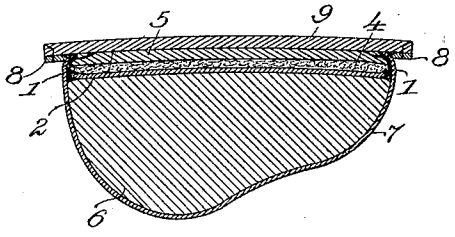


Fig. 7.



Witnesses:
John F. C. Brinkerhoff
Fred O. Fisher

Inventor:
Edwin P. Worth
by his Attorney
Benjamin Phelps

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 744,850. Patented November 24, 1903.

UNITED STATES PATENT OFFICE.

ELVIN P. WORTH, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO ELECTRIC CUSHION SHOE COMPANY, OF PORTLAND, MAINE, A CORPORATION OF MAINE.

ARTICLE FOR USE IN THE MANUFACTURE OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 744,850, dated November 24, 1903.

Application filed February 5, 1902. Serial No. 92,615. (No model.)

To all whom it may concern:

Be it known that I, ELVIN P. WORTH, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Articles for Use in the Manufacture of Boots or Shoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to an improved article for use in the manufacture of boots and shoes.

The object of my invention is to provide an article which can be used in the manufacture of boots and shoes in the same manner as an ordinary insole and by which a shoe provided with a sock-lining or with a sock-lining and a cushion-sole can be produced superior in construction to boots or shoes provided with sock-linings which have heretofore been devised.

With this object in view my invention consists in the article hereinafter described and claimed, the advantages of which will be obvious to those skilled in the art from the following description.

My invention is embodied in its preferred form in an article comprising a sock-lining consisting of two layers of material cut to the shape of a shoe-sole, sewed together at their edges and turned inside out, and a cushion-sole and an insole provided with a lip formed by channeling the insole or in any other desired manner, inserted between the layers of the sock-lining, the layer of the sock-lining on the lipped side of the insole extending over the insole in position to be attached thereto by the stitches of the inseam which unite the insole to the upper. In an article so constructed the layer of the sock-lining on the lipped side of the insole fits smoothly against the surface of the sole without wrinkling or puckering, and the lining is held in position on the insole during the operation of sewing the upper to the insole without the use of any securing means such as cement or stitching, these results being principally due to the fact that both layers of the sock-lining are cut to the shape of the sole. Since the sock-lining is turned inside out, the seam is located within the lining and the lining extends smoothly and evenly over the edge of the insole and the insole and lining fit snugly against the upper in the completed shoe. Another advantage secured by turning the lining inside out is that the layer of the lining which extends over the lipped surface of the sole lies flat against the sole inside of the lip, in which position it is not liable to be seized, together with the upper and its lining, by the lasting-pincers during the lasting operation. While, however, for the reasons above stated an article embodying my invention in its preferred form possesses all of the features of construction above referred to, my invention as to its broader aspects may be embodied in an article which is lacking certain of these features. Thus the cushion-sole might be omitted without departing from the broader principles of my invention. Also in certain cases an insole which is not provided with a channel or a lip might be inserted between the layers of the sock-lining. Also certain features of my invention might be embodied in an article in which the sock-lining is not turned inside out before the insole is inserted between the two layers thereof. I do not, therefore, consider my invention as limited to an article provided with any of the features of construction referred to above as being desirable in the preferred form thereof, except where such features of construction are specifically recited in the claims.

The preferred form of my invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of two layers of material cut to the shape of a shoe-sole and sewed together at their edges, said view illustrating a step in the manufacture of the sock-lining. Fig. 2 is a cross-sectional view on the line 2 2 of Fig. 1. Fig. 3 is a view similar to Fig. 1, illustrating another step in the production of the sock-lining, the upper layer of the lining being shown as provided with a slit or aperture extending from a point near the toe to a point near the heel of the lining. Fig. 4 is a cross-sectional view on the line 4 4 of Fig. 3. Fig. 5 is a cross-sectional view

illustrating the preferred form of the completed sock-lining, the sock-lining shown in the figure being produced by turning the lining shown in Fig. 3 inside out. Fig. 6 is a cross-sectional view of the preferred form of the completed article, which is produced by inserting a cushion-sole and a channeled insole between the layers of the lining illustrated in Fig. 5; and Fig. 7 is a cross-sectional view of a completed shoe which has been produced by the use of the article illustrated in Fig. 6.

As shown in the drawings, the sock-lining is produced by sewing together at their edges two layers of material 1 and 2, which have been cut to the shape of a shoe-sole. These layers may be of any suitable material, the layer 2 preferably being of soft leather and the layer 1 of canvas. After the two layers have been sewed together, as shown in Fig. 1, a slit or aperture 3 is formed in the layer 1, extending from a point near the toe to a point near the heel thereof, and the lining is turned inside out. The appearance of the sock-lining as thus produced is illustrated in Fig. 5. A cushion-sole 4 and an insole 5, illustrated in the drawings as an ordinary channeled leather insole, are inserted between the layers of the sock-lining, as illustrated in Fig. 6. It will be seen that the article thus produced consists of a sock-lining composed of two layers of material cut to the shape of a shoe-sole, sewed together at their edges and turned inside out, and a cushion-sole and a channeled insole inserted between the layers of the sock-lining. The layer 1 of the sock-lining extends over the channeled surface of the insole 5 and lies smoothly and evenly against such surface without wrinkling or puckering. The seam which unites the edges of the sock-lining is located within the lining, and consequently the lining extends evenly and smoothly over the edges of the cushion-sole and insole. The insole, the cushion-sole, and the sock-lining are retained in position with relation to each other without the use of cement or stitching, and the layer 1 of the sock-lining extends over the channel flap or lip of the insole in a position to receive the stitches of the inseam during the operation of sewing the upper to the insole. After passing over the channel flap or lip of the insole the layer 1 of the sock-lining lies flat against the surface of the insole on account of the strain upon this layer of the sock-lining produced by turning the lining inside out.

My improved article is used in the manufacture of shoes in the same manner as an ordinary lipped insole, as will be evident from an inspection of Fig. 7. In said figure, 6 indicates a last upon which the article illustrated in Fig. 6 is placed, with the layer 2 of the lining in contact with the bottom of the last in the same manner as an ordinary insole. The upper 7 is then lasted over the sock-lining, cushion-sole, and insole in the same manner as when an ordinary insole is used. During this operation it will be seen that the layer 1 of the sock-lining does not interfere with the lasting operation, since it lies flat against the surface of the insole and is therefore in a position in which there is no liability of its being seized by the lasting-pincers. After the upper has been lasted the welt 8, the upper 7, and the insole 5 are united by a line of stitching in the usual manner, the stitches passing through the layer 1 of the sock-lining, so that the lining is fixedly secured to the shoe. During the sewing operation the portion of the lining 1 which extends beyond the channel flap or lip of the insole is raised to allow the stitches to be located in the channel, or, if desired, this portion of the layer 1 is cut away prior to the sewing operation. After the welt, upper, and insole have thus been sewed together the shoe is finished in the usual manner by trimming the upwardly-projecting portion of the channel flap or lip, which operation at the same time trims off the layer 1 of the sock-lining, and by securing the outsole 9 to the welt 8.

I am aware that it has been proposed to provide a shoe with a sock-lining for the insole and with a cushion or protective sole interposed between the sock-lining and the insole, examples of such shoes being shown in the patents to S. F. Whittlesey, No. 328,267, dated October 13, 1885, and A. Reed, No. 563,803, dated July 14, 1886. In the construction shown in the patent to Whittlesey the sock-lining consists of a single sheet of material, the edges of which are folded over the edges of the protective sole and insole, the lining being secured to the protective sole and insole by means of cement. An article embodying my invention is distinguished from this construction in various particulars—as, for instance, in comprising a sock-lining composed of two layers of material sewed together at their edges, whereby the wrinkling and puckering of that portion of the lining which extends over the edge of the insole incident to the Whittlesey construction is avoided.

In the construction shown in the patent to Reed the sock-lining consists of a layer of material which is united at its edge to a tape which has previously been secured to the insole by a line of stitches. An article embodying my invention is distinguished from this construction in that the layers of material of which the sock-lining is composed are cut to the shape of the sole, whereby the wrinkling or puckering of the tape of the Reed construction is avoided. It is also distinguished therefrom in that the layer of the sock-lining which extends over the lipped surface of the insole extends over the channel flap or lip in a position to receive the stitches of the inseam, no means other than the stitches of the inseam being provided for securing the lining to the insole or for securing it in position in the shoe.

An article embodying my invention is also clearly distinguished from the constructions shown in both of the above-mentioned patents in many particulars, which will be obvious to those skilled in the art.

Having thus indicated the nature and scope of my invention and having specifically described an article embodying the preferred form thereof, I claim as new and desire to secure by Letters Patent of the United States—

1. An article of manufacture, having, in combination, a sock-lining consisting of two layers of material sewed together at their edges and turned inside out, and an insole inserted between the layers of the sock-lining, substantially as described.

2. An article of manufacture, having, in combination, a sock-lining consisting of two layers of material cut to the shape of a shoe-sole sewed together at their edges and turned inside out, and an insole inserted between the layers of the sock-lining, substantially as described.

3. An article of manufacture, having, in combination, a sock-lining consisting of two layers of material cut to the shape of a shoe-sole sewed together at their edges and turned inside out, and an insole inserted between the layers of the sock-lining, the sock-lining extending over the insole in position to receive the stitches of the inseam, substantially as described.

4. An article of manufacture, having, in combination, a sock-lining consisting of two layers of material cut to the shape of a shoe-sole and sewed together at their edges, and a lipped insole inserted between the layers of the sock-lining, one of the layers of the sock-lining extending over the lip of the insole in position to receive the stitches of the inseam which unite the insole and upper, and being provided with an aperture through which the insole is inserted, substantially as described.

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

ELVIN P. WORTH.

Witnesses:
FRED O. FISH,
HORACE VAN EVEREN.