W. J. HOAR.

SHOE.

APPLICATION FILED OCT. 1, 1913.

1,106,811.

Patented Aug. 11, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

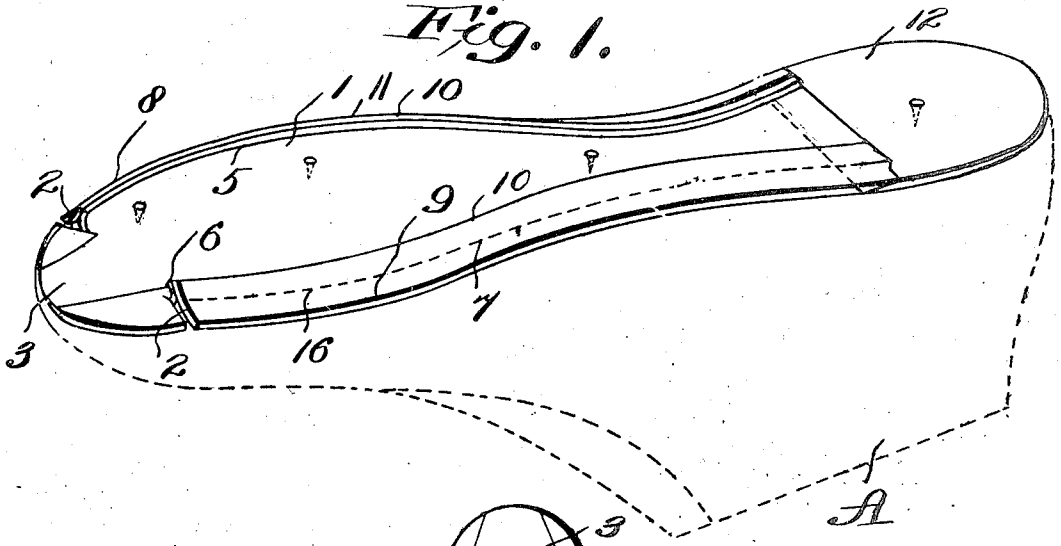
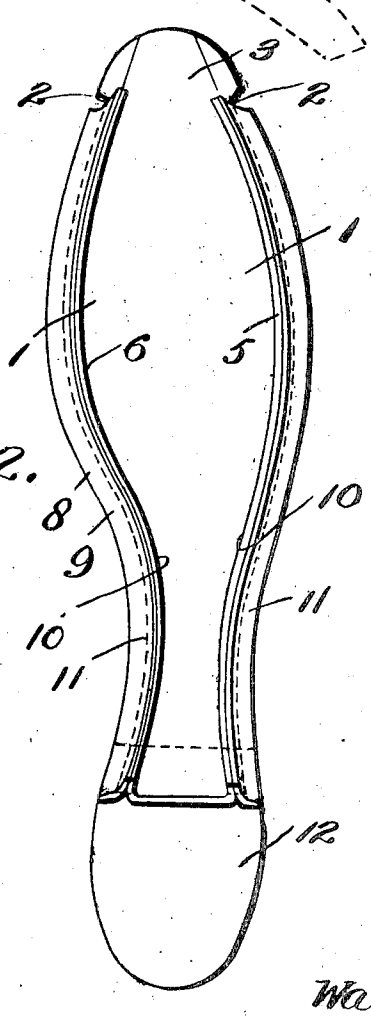


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

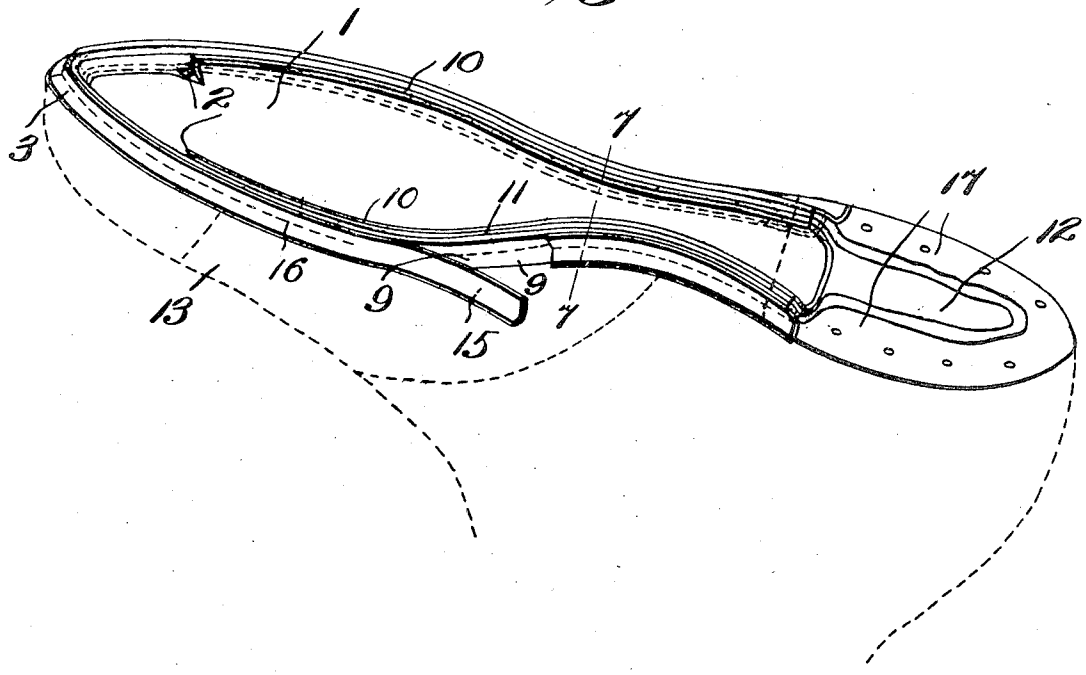


Fig. 7.

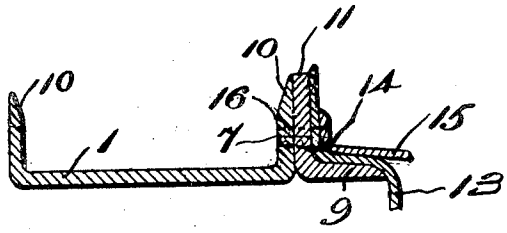


Fig. 5.

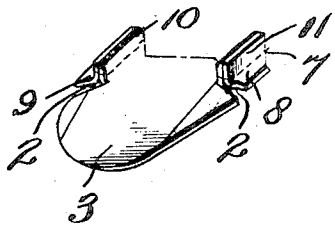


Fig. 3.

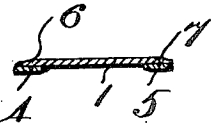
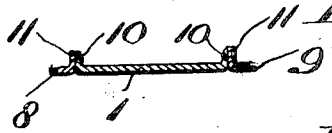


Fig. 4.



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UNITED STATES PATENT OFFICE.

WALTER J. HOAR, OF PORTLAND, MAINE, ASSIGNOR TO W. J. HOAR SHOE MANUFACTURING CO., OF PORTLAND, MAINE, A CORPORATION.

SHOE.

1,106,811. Specification of Letters Patent. Patented Aug. 11, 1914.

Application filed October 1, 1913. Serial No. 792,863.

To all whom it may concern:

Be it known that I, WALTER J. HOAR, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in 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 boots and shoes, and more especially to inner soles therefor, and has for its purpose to provide an inner sole construction which will serve as the foundation for manufacturing footwear, from a light pump to the heaviest working shoe.

The further purpose of the invention is to construct a highly flexible inner sole and unite the same to the upper in a manner to provide a water-tight seam between them; and wherein the flexibility of the inner sole will enable the same to conform with all movements of the foot while in use, and thus avoid the formation of a vacuum in the shoe with its resultant disadvantages.

With these and other objects in view the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

In the accompanying drawings forming a part of this application, and in which similar reference symbols indicate corresponding parts in the several views: Figure 1 illustrates the inner sole on the last. Fig. 2 is a top plan view thereof. Fig. 3 is a transverse sectional view of the inner sole with side strips attached. Fig. 4 is a view similar to Fig. 3 and showing the side strips forming the sole extension, and the shoulder formation. Fig. 5 is a detail perspective view of the inner sole toe portion. Fig. 6 illustrates the manner of applying the upper and welt to the inner sole; and Fig. 7 is a partial transverse sectional view taken on the line 7—7 of Fig. 6.

In the preferred embodiment of the invention the inner sole 1 is cut narrower than the width of the last, and is provided with cuts or incisions 2 on opposite edges to form a free toe portion 3. A pair of strips 4 and 5 are stitched to the sole portion 1 along the lines 6 and 7, and said pair of strips are then turned outwardly, as in the manner shown in Fig. 4, to provide sole extensions 8 and 9, and upturned shoulders 10 and 11 formed on the insole side edges and strips, respectively. The side strips 4 and 5 extend from the heel 12 to the points of incision 2, and thus leave free the toe portion 3, as clearly shown in Fig. 2. The insole comprises a separate heel portion 12 and a main body portion 1. In uniting the inner sole to the shoe upper the heel portion 12 is tacked to the last in the usual manner, glue is applied to the sole portion 1, and said sole portion 1 is then tacked to the last along the side edges. The upper 13 is then sewn to the shoulders by the stitches 14, and the welt 15 is sewn on to the upper and the shoulders by the stitches 16, in the usual manner (see Fig. 7).

The heel portion 17 of the upper is gathered and secured to the heel 12 of the inner sole as in the manner shown in Fig. 6. In the trimming operation the parts are cut away near the line of stitches 16.

From the foregoing, it will be clearly seen that by so uniting the parts, the welt, the upper and the inner sole are completely drawn together, thus making a water-tight seam, or union. And it will be further noted that where the inner sole is used with a rubber sole, the rubber sole cannot rip, since the inner sole is softer than the rubber. The omission of the ridge or shoulder on the toe portion of the inner sole leaves that part of the inner sole independent and capable of great flexibility. A rubber sole, when used, cannot easily break across the bottom, since the inner sole is not sufficiently rigid or stiff to form a lever in bending the shoe. By providing the strips forming the shoulders only part way around the side edges of the inner sole, and having the cuts in the inner sole near the toe portion, the inner sole is allowed to spread out on the last without requiring to be lasted or pulled, as required by the inner soles of other shoes.

It is obvious that those skilled in the art may vary the details of construction and arrangement of parts without departing from the spirit of my invention, and therefore I do not wish to be limited to such features except as may be required by the claims.

I claim:

1. A foot covering having, in combination, an insole having a portion of each side edge

turned up to form a shoulder terminating at the toe portion of said insole, strips secured to said shoulders and forming insole extensions, and an upper secured to said shoulders, the toe portion of said insole being free from said upper.

2. A foot covering having, in combination, an insole having a portion of each side edge turned up to form a shoulder terminating at the toe portion of said insole, said insole having its heel portion separate from the main body of the insole, strips secured to said shoulders and forming insole extensions, and an upper secured to said shoulders, the toe portion of said insole being free from said upper.

3. A foot covering having, in combination, an insole formed with incisions on opposite edges adjacent the toe portion; said insole having its heel portion separate from the main body of the insole, the edge portions of the insole between said heel portion and the incisions being turned up to form shoulders, strips secured to said shoulders and forming insole extensions, and an upper secured to said shoulders, the toe portion of said insole being free from said upper.

4. A foot covering having, in combination, an insole formed with incisions on opposite edges adjacent the toe portion; said insole having its heel portion separate from the main body of the insole, the edge portions of the insole between said heel portion and the incisions being turned up to form shoulders, strips secured to said shoulders and forming insole extensions, a welt secured to said shoulders; and an upper united to said insole between the shoulders and welt by said securing means, the toe portion of said insole being free from said upper.

5. A foot covering having, in combination, an insole formed with incisions on opposite edges adjacent the toe portion; said insole having its heel portion separate from the main body of the insole, the edge portions of the insole between said heel portion and the incisions being turned up to form shoulders, strips secured to said shoulders and forming insole extensions, a welt; an upper; and two rows of stitches uniting said upper to said shoulders.

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

WALTER J. HOAR.

Witnesses:
HORACE B. WENTWORTH,
A. L. LOWELL.