

J. W. HATCH.  
SHOES.

No. 195,447.

Patented Sept. 25, 1877.

Fig. 1.

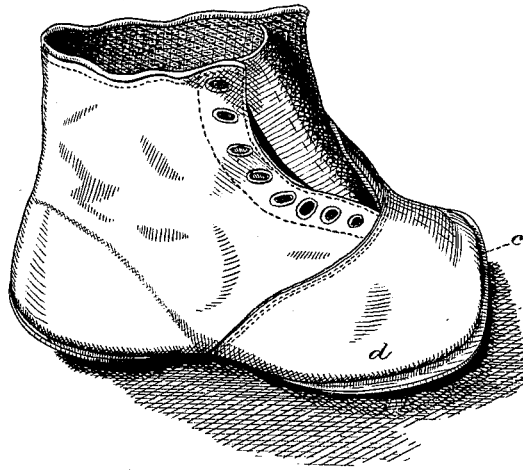


Fig. 4.

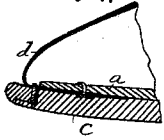


Fig. 5.

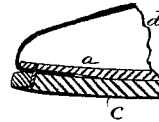


Fig. 2.

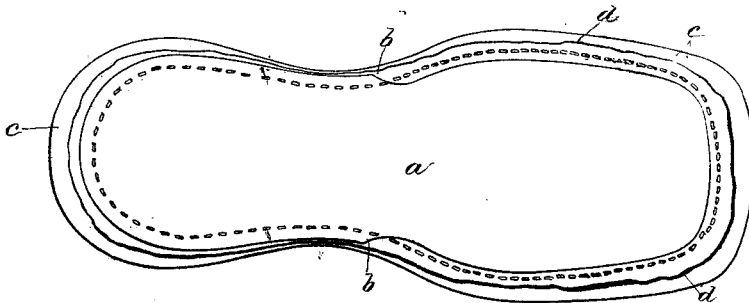
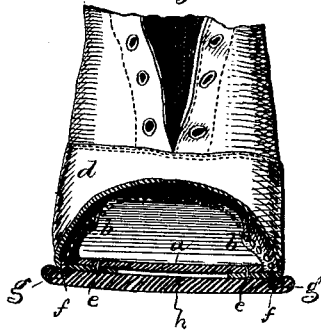


Fig. 3.



Witnesses,  
L. C. Latimer  
H. J. Pratt

Inventor,  
Jesse W Hatch  
per Lewis & Heycox.

# UNITED STATES PATENT OFFICE.

JESSE W. HATCH, OF ROCHESTER, NEW YORK.

## IMPROVEMENT IN SHOES.

Specification forming part of Letters Patent No. 195,447, dated September 25, 1877; application filed May 7, 1877.

### To all whom it may concern:

Be it known that I, JESSE W. HATCH, of Rochester, in the county of Monroe and State of New York, have invented an Improvement in Shoes, of which the following is a specification:

This invention relates to an improved shoe of the class made upon the McKay sewing-machine. In that class of shoe the upper is placed between an inner sole and a channeled outer sole, and the stitches are made through the three.

In this plan the inner sole, projecting outward beyond the row of stitches uniting it with the upper and outsole, does not permit the stitches uniting the upper and outsole to be made very close to the angle formed in the upper directly at the point where the upper meets the outer sole; and, consequently, if the outer sole is extended in width or length much beyond the inner sole, it will not be held in contact with the upper sufficiently near its bend to properly hold the sole edge.

Further, in a shoe of this class, when finished, the upper bent about the inner sole is substantially flush with the edge of the outer sole, and blows against the upper (it resting against the inner sole) soon cut it through.

To obviate the cutting of the upper, shoe-tips are used to cover the toe of the upper. So, also, a sole has been recessed to receive the upper and inner sole.

I have ascertained by experiment that an ordinary outsole may be sewed to the upper on a McKay machine, and be made to project beyond the upper to serve the purpose of a protecting edge, and the upper be so held as not to be cut over the inner sole when the shoe is worn, if, when sewing the shoe about its ball and toe in front of the shank, the stitches be made outside the inner sole, and so as to enter the upper and outsole. This can be done without necessarily increasing the width of the outsole. It is in this last class of shoes that my invention consists.

Figure 1 represents, in side elevation, a child's shoe made in accordance with my invention; Fig. 2, a plan of the inner sole and upper stitched together, and as they would appear if the upper were cut away parallel with the face of the inner sole; Fig. 3, a trans-

verse section of the shoe; Fig. 4, a longitudinal section at the toe; and Fig. 5, a section at the toe of an ordinary shoe.

The inner sole *a*, of leather or leather-board, is, forward from the point *b*, near the shank, made considerably narrower than the outside *c*, and shorter, as shown in plan, Fig. 2. *Sole*

In the preparation of the shoe, the inner sole *a* is placed upon a last-bottom, as usual, the last being wider and longer than the inner sole, and the upper *d* is then lapped over it, and secured by suitable tacks *e*, nails, pegs, or stitches, as common in lasting. Then a channeled outer sole, *c*, is placed on the inner sole, and held by a proper number of lasting tacks or nails *e*, and the last is then withdrawn, leaving the shoe ready to be placed upon the horn to be stitched.

Referring to Figs. 2 and 3, it will be observed that the edge of the inner sole, forward of the shank, terminates short of the upper, thereby leaving a passage way. The end of the horn rests in this passage while the shoe is being sewed from the shank forward about the toe and back to the shank, and from the shank backward about the heel the end of the horn bears upon the inner sole. The stitches uniting the outer sole with the upper are therefore at the forward portion of the shoe made only through the outsole and upper, and at the back portion of the shoe through the outer sole, upper, and inner sole.

As shown in Figs. 2, 3, and 4, the upper is secured to the inner sole, in front of the shank, by lasting-tacks *e*, and to the outsole, outside of the inner sole, by stitches *f*, made through a channel, *g*.

Fig. 5 shows a sectional detail of an upper and inner and outer soles united, as usual, by a stitch. In such figure it will be observed that the outer edge of the inner sole projects outward beyond the stitch, and the upper is bent directly around such edge, and the edge of the outer sole is almost even with the upper.

In such a shoe, blows against the upper quickly cut it over the edge of the inner sole, especially if a leather-board inner sole is used. To obviate this cutting of the upper, especially at the toes, where the upper receives the greatest number of blows, it has been customary to cover the toe of the upper with a

shoe-tip. To obviate the wear of the upper, the outer sole has been recessed, so as to leave a raised lip about its edge, and the upper and inner sole have been secured in the recess on the sole, the edge of the inner sole thereby being lowered, so that the upper could not be struck opposite the edge of the inner sole.

In a shoe constructed as in Fig. 5, should the edge of the outer sole be allowed to project to such a distance that the upper could not be struck opposite the edge of the inner sole, it would extend so far from the line of stitches that the sole would not be properly held up against the upper at the portion where it is bent about the inner sole. An outer sole having its edge extended in the way last proposed, even if practical, would increase the cost of the shoe considerably, owing to the extra width and length of such outer sole.

In my improved shoe, owing to its peculiar construction, as represented in the drawings, I am enabled to make an ordinary outer sole serve the full purpose of a protector for the upper without increasing its width or cost, or without recessing its upper surface, or without providing the sole with a vertical lip or flange.

By merely decreasing the width and length of the inner sole forward of the shank, I am enabled to secure the upper directly to the outer sole by stitches outside the edge of the inner sole; and the upper, stitched to the outer sole at the portion where the upper bends to meet it, is so held that it cannot, when struck, be bent over the corner of the inner sole.

In my plan of shoe, the upper, about the toe and ball of the foot, is held to the outer sole by stitches made through the upper just at the point where it, when bent, meets the sole, rather than at a distance back therefrom, as shown in Fig. 5. It is therefore possible to extend the edge of the outer sole far enough beyond the stitches or fastenings uniting the upper and outer sole so as to serve as an upper-protector, and this without removing the edge of the outer sole too far from the line of stitching holding it in place with the upper.

It is obvious that this invention may be so embodied with a shoe as to operate as described only with the toe of the upper, or it and a portion of the upper immediately adjacent to the toe, and at the side of the shoe.

In my invention it will be observed that the inner sole is fixed in position with relation to the outer sole, and that the upper is at-

tached permanently with the inner sole, and the latter is not intended to be detached therefrom after the outer sole is stitched to the upper.

The space *h* (shown in Fig. 3) will, in practice, be filled with scrap-leather or leather-board, so as to prevent the descent of the inner sole under the pressure of the foot.

This invention is especially applicable to children's, ladies', and misses' shoes.

The inner sole is full width at the shank-piece.

If desired, the inner sole at the heel may be cut away at its edge, to permit the stitches to be made through the outer sole and upper outside of it; but in such case the inner sole will be permanently fastened to the shoe at the shank by suitable tacks or fastenings.

I claim—

1. In combination, a permanent inner sole, an upper, and an outer sole extended beyond the toe of the upper far enough to serve as a protecting-edge for the upper, the upper and the outer sole being united by stitches made therein within the toe of the shoe outside the end of the inner sole, whereby the toe of the upper is so held as not to be cut over the edge of the inner sole.

2. A permanent inner sole made narrower and shorter than the outer sole from its shank forward, in combination with an upper and outer sole sewed together by stitches passing only into the upper and outer sole outside of the edge of the inner sole, in front of the shank, substantially as described.

3. A permanent inner sole, reduced in width and length in front of the shank, as described, in combination with an outer sole and an upper united together in front of the shank by stitches passing only into the upper and outside the edge of the inner sole, and at the shank and backward by stitches passing through the outsole, upper, and inner sole, all substantially as described.

4. The within-described method of manufacturing an extension-edge upper-protecting shoe, provided with a permanent inner sole, consisting in stitching the upper to the outer sole outside the edge of the permanent inner sole, forward of the shank, substantially as described.

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

JESSE W. HATCH.

Witnesses:

CHAS. B. HATCH,  
S. W. UPDIKE, Jr.