G. H. JONES.

Manufacture of Boots and Shoes.

No. 204,979. Patented June 18, 1878.

Fig. 1.

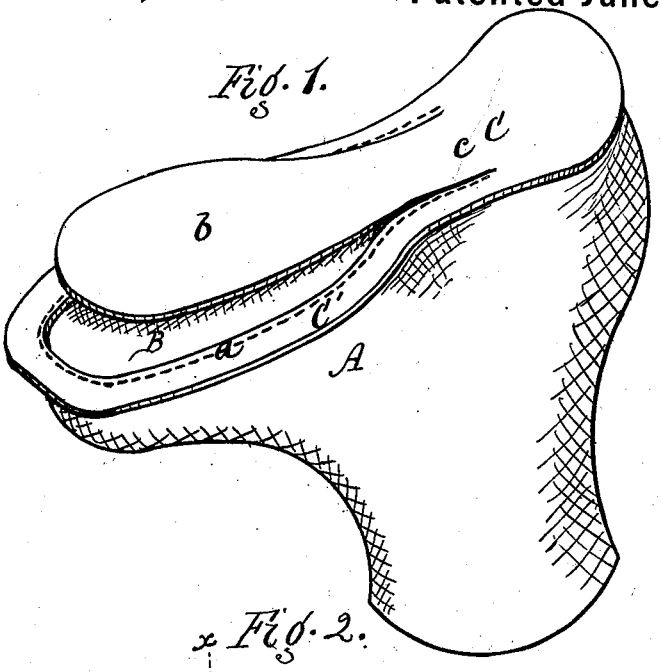


Fig. 2.

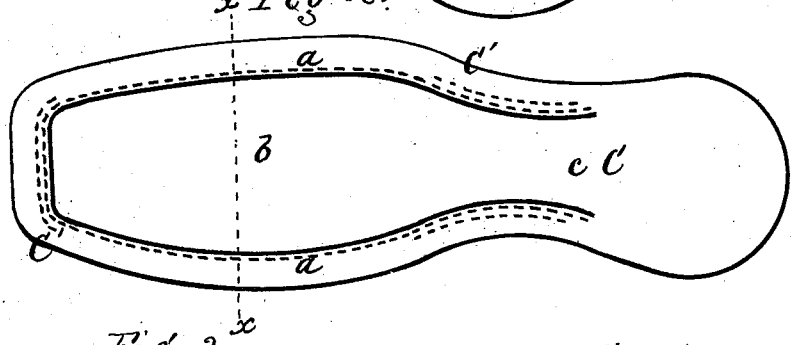


Fig. 3.

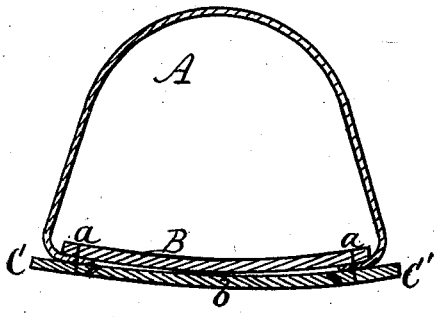
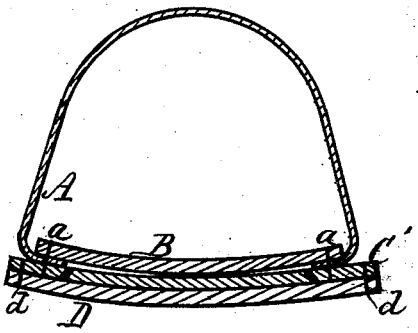


Fig. 4.



Attest.

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UNITED STATES PATENT OFFICE

GEORGE H. JONES, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN MANUFACTURE OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **204,979**, dated June 18, 1878; application filed August 27, 1877.

To all whom it may concern:

Be it known that I, GEORGE H. JONES, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in the Manufacture of Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a shoe turned bottom upward, and showing my improvement before the outer sole is applied. Fig. 2 is a plan of the same. Fig. 3 is a cross-section in line *x x*. Fig. 4 is a view similar to Fig. 3, but showing the outer sole applied to the shoe.

My improvement relates to machine-sewed boots and shoes, in which the upper, the inner sole, and the welt are first secured together by a seam passing directly through said parts from outside to inside, and the outer sole and welt are then secured together by a seam passing through said parts outside of the upper.

The invention consists in forming the welt by laying a flat piece of leather over the whole bottom of the lasted shoe, sewing the same to the upper and inner sole, as above described, and then cutting the leather inside of the seam around the toe and sides as far back as the heel, leaving the same free, but attached at the heel, whereby some advantages are secured, as will be hereinafter more fully set forth.

A represents the upper; B, the inner sole; C, the piece of leather from which the welt C′ is formed; and D, the outer sole.

The shoe is first lasted in the ordinary way. The piece of leather C is then placed over the bottom of the lasted shoe, covering the same, and being of the size and shape of the outer sole. The shoe is then run through a sewing-machine, which forms the seam *a*, said seam passing through the welt-piece, the upper, and the inner sole to the inside of the shoe. The welt-piece C is next cut with a sharp knife inside of the seam *a* around the toe and sides as far back as the heel, which leaves the tongue *b* entirely free, but attached at the heel, as shown at *c*.

In Fig. 1 the tongue *b* is shown as raised up from the welt proper, for the purpose of illustration. The tongue thus cut from the welt-piece is allowed to remain flat in its seat, and forms the filling between the outer and inner soles. The outer sole is next placed over the shoe, and its outer edge is sewed to the welt C′ by a seam, *d*, which passes through both of said parts outside of the upper.

Several advantages are secured by forming the welt as above described:

First, the welt proper is perfectly smooth and unwrinkled around its whole perimeter, making uniform and perfect work, and saving much time in manufacture, whereas, as ordinarily applied in a narrow strip, it has to be curved, bent, and wrinkled, and frequently notched on the inner edge, which weakens it, and with the utmost care smooth and good work cannot always be made, especially with stiff and hard leather.

Second, the cutting around inside the seam to form the tongue *b* relieves the seam from the strain and wear it would receive if the whole welt-piece C were entire, securing, in this respect all the advantage of a narrow welt, and also securing to the wearer the ease of motion and flexibility of the foot which occurs in hand-sewed shoes. It obviates the stiffness that always occurs in machine-sewed shoes.

Third, it enables more than one line of stitching to be made at the instep or toe, or other point where greater strain comes, as shown in Fig. 2, since the cutting of the welt-piece can be carried farther in at any point.

Fourth, it enables the welt to be cut by a die to the exact size and shape desired to fit the sole, thereby obviating much of the labor and difficulty involved in paring the ordinary welt.

The shoes thus formed can be made as cheaply or cheaper than ordinary shoes, since the tongue *b* occupies the place of ordinary filling between the soles, and the difference in cost of stock is more than compensated in the saving of labor.

Having thus described my invention, I claim—

The process herein described of manufacturing boots and shoes, which consists in laying a flat piece of leather over the bottom

of the lasted boot or shoe, sewing the same to the upper and the inner sole by a seam passing to the inside, then cutting around the toe and sides inside the seam as far back as the heel, leaving thereby a welt at the edges and a filling-piece in the center, and finally sewing the outer sole to the welt by a seam passing through both of said parts outside of the upper, as and for the purpose specified.

GEORGE H. JONES.

Witnesses:
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J. M. AIKENHEAD.