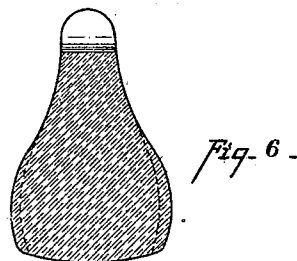
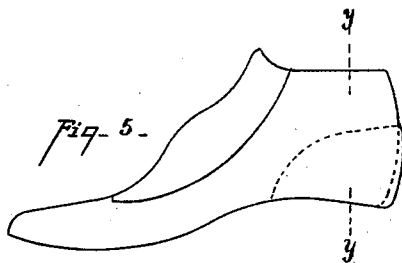
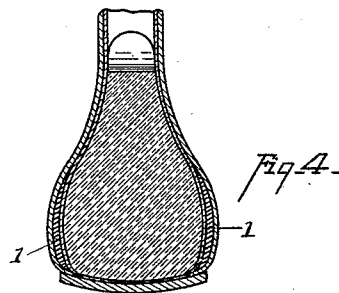
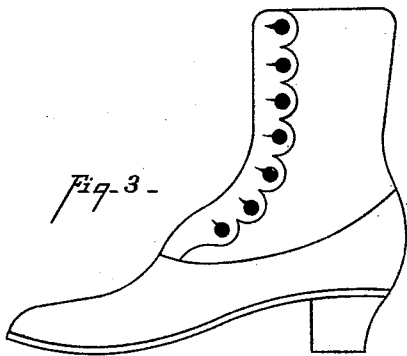
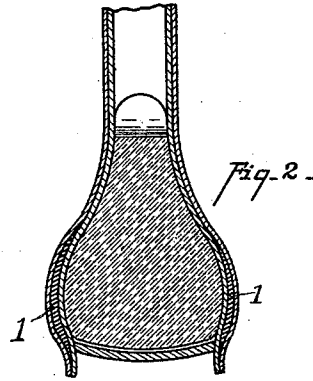
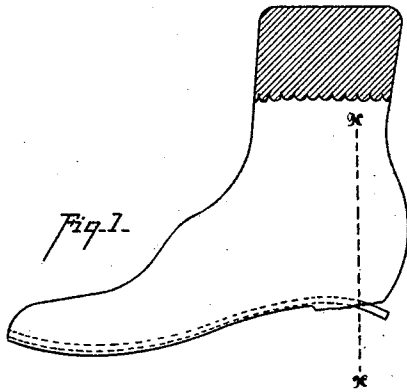


(No Model.)

A. C. OPPENHEIMER.
MANUFACTURE OF SHOES.

No. 499,571.

Patented June 13, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT C. OPPENHEIMER, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF
TO JOHN HELMING, JR., OF SAME PLACE.

MANUFACTURE OF SHOES.

SPECIFICATION forming part of Letters Patent No. 499,571, dated June 13, 1893.

Application filed March 16, 1893. Serial No. 466,344. (No model.)

To all whom it may concern:

Be it known that I, ALBERT C. OPPENHEIMER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in the Manufacture of Shoes, of which the following is a specification.

My invention relates to the process of making what is known as a turned shoe.

The object of the invention is to so construct the shoe that the double or second lasting will not injure the shoe by unduly stretching the parts. The detailed manner of accomplishing this result is fully pointed out in the description of the accompanying drawings making a part of this specification, in which—

Figure 1 is a side elevation of a shoe in the first lasting process. Fig. 2 is a section on line *x, x*, Fig. 1. Fig. 3 is a side elevation of a shoe completed after the second lasting. Fig. 4 is a similar section to that of Fig. 2 showing the shoe turned and on the last ready for heeling. Fig. 5 is a side elevation of the last. Fig. 6 is a section on line *y, y*, Fig. 5.

In making a turned shoe by the ordinary process now in use it is placed inside out upon a last, and the sole *A* is attached to the upper; the shoe is then turned and the same last is put into it for reshaping and finishing; the inside of the shoe when turned right side out is considerably smaller than the inside of the shoe when wrong side out; this difference in size is chiefly due to the fact that the counter *1* is of considerable thickness. When the shoe is lasted in order to hold it tightly on the last it is buttoned up, if it is a button-shoe; now when the same last is put into the shoe for the second lasting it unduly stretches the shoe, and in many cases the button holes are injured or the buttons pulled off, and sometimes the upper is torn by the strain of the button threads; as a consequence the flap *b* yields and the front is drawn to one side of the center.

In Fig. 5 I have shown by full and dotted lines the difference of the size of the inside of the shoe during the first and second lasting. The shoe is unduly stretched across the instep when the same last is put in for the

second lasting. This is the process of lasting shoes hitherto employed with all turned shoes; as a result of these two different inside sizes very many of the shoes are damaged by the undue stretching of the shoe in the second lasting; either the buttons are torn off or the stitches ripped. But there is an additional disadvantage due to this undue stretching of the shoe; they are lasted and turned and lasted again while in a moist condition, and as a consequence they shrink when the moisture evaporates; now if some parts have been unduly stretched they shrink unevenly and set out of shape; some parts of the uppers wrinkle in the undue stretching and they are apt to set in the wrinkled condition. My process, however, obviates all these difficulties, and I obtain a neater and better shaped shoe without any material danger of damage to either buttons or seams; this makes a very large saving in the cost of manufacturing turned shoes.

By my process I employ two sets of lasts of different size and shape which are indicated in Figs. 5 and 6; the full lines in said figures represent the enlarged last employed in the first step, to wit, last for the shoe wrong side out, and the dotted lines the size for the last of the second step. The size and shape of the last for the finished work is first determined; then I take another like it but with the difference indicated by the enlargement and upon this the shoe is first lasted and the sole attached as indicated in Fig. 1, the shoe is then turned and the second last which is less in size around the heel in the planes opposite the thick counter *1*, as indicated by the dotted lines, is inserted to shape up the shoe; thus the last is shorter in length between toe and heel, and narrower in cross section across the heel as indicated by the dotted lines in said figures; as a consequence when the second last is inserted into the shoe for the second lasting operation the same fit or pressure is applied to each part of the shoe that was before employed when lasting the wrong side out, and there is no undue stretching but merely bringing the shoe back by the second lasting process by the strain to nearly the same shape and size that was given it in the first step of lasting. As a consequence the

buttons are not unduly strained, and the front seam is not stretched to one side; the stitches are not ripped, and there is no wrinkling of the shoe occasioned by the undue stretching of some part of the upper, and the shoe when completed sets and fits exactly in the same manner as when but one lasting had occurred, thereby producing a much neater and more durable shoe. Besides it saves a large expense as there are no damaged shoes made by my process, thus making a saving not only from loss of goods, but also in time and expense of repairing damaged shoes, which have to be always sold at a great reduction in price from that of a perfect article.

Having described my invention, what I claim is—

The process of making a turned shoe which consists in lasting it wrong side out with an enlarged interior heel portion, then turning the shoe and relasting, and shaping and finishing the same with a reduced interior heel portion, substantially as described.

In testimony whereof I have hereunto set my hand.

ALBERT C. OPPENHEIMER.

Witnesses:

T. SIMMONS,
C. W. MITES.