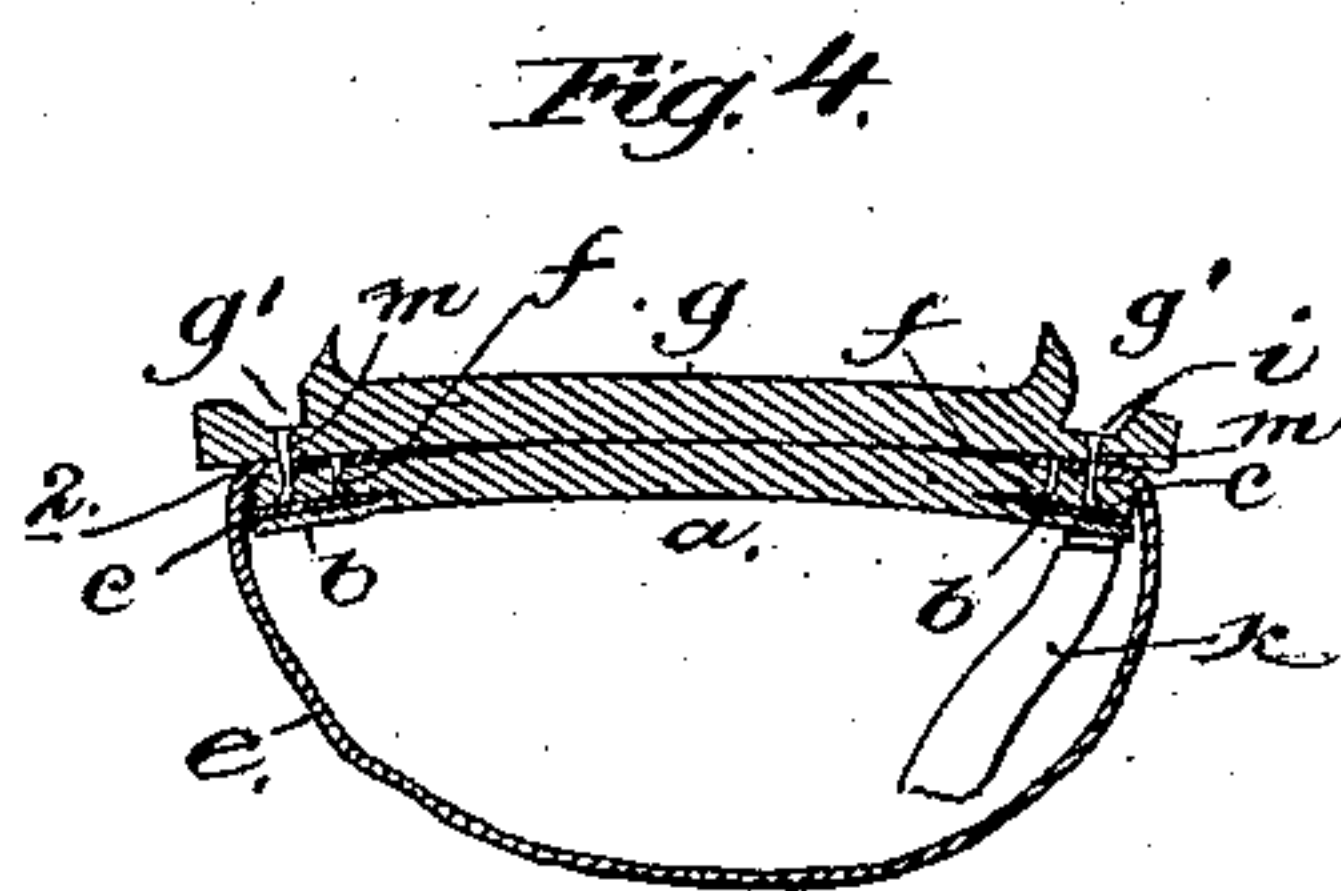
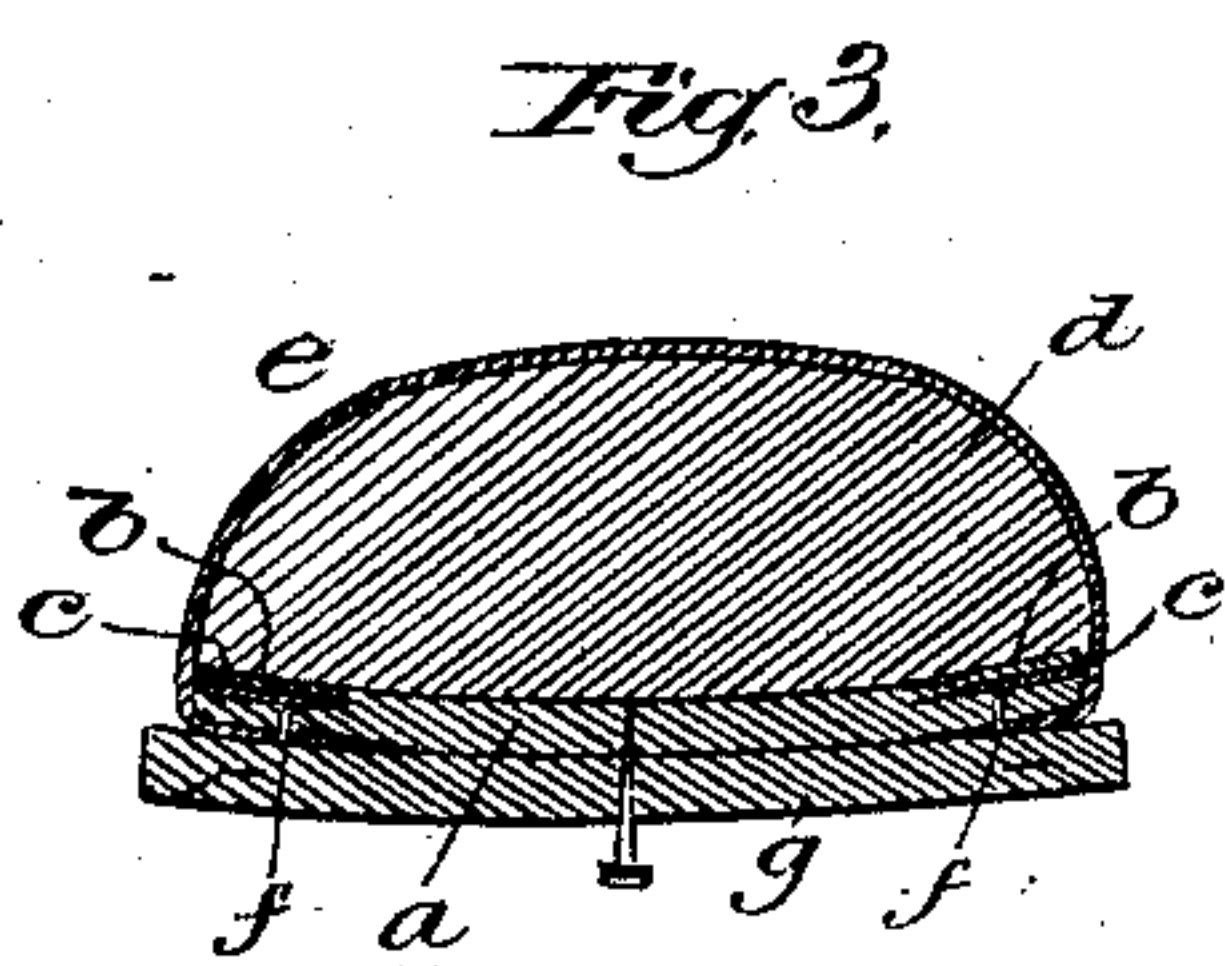
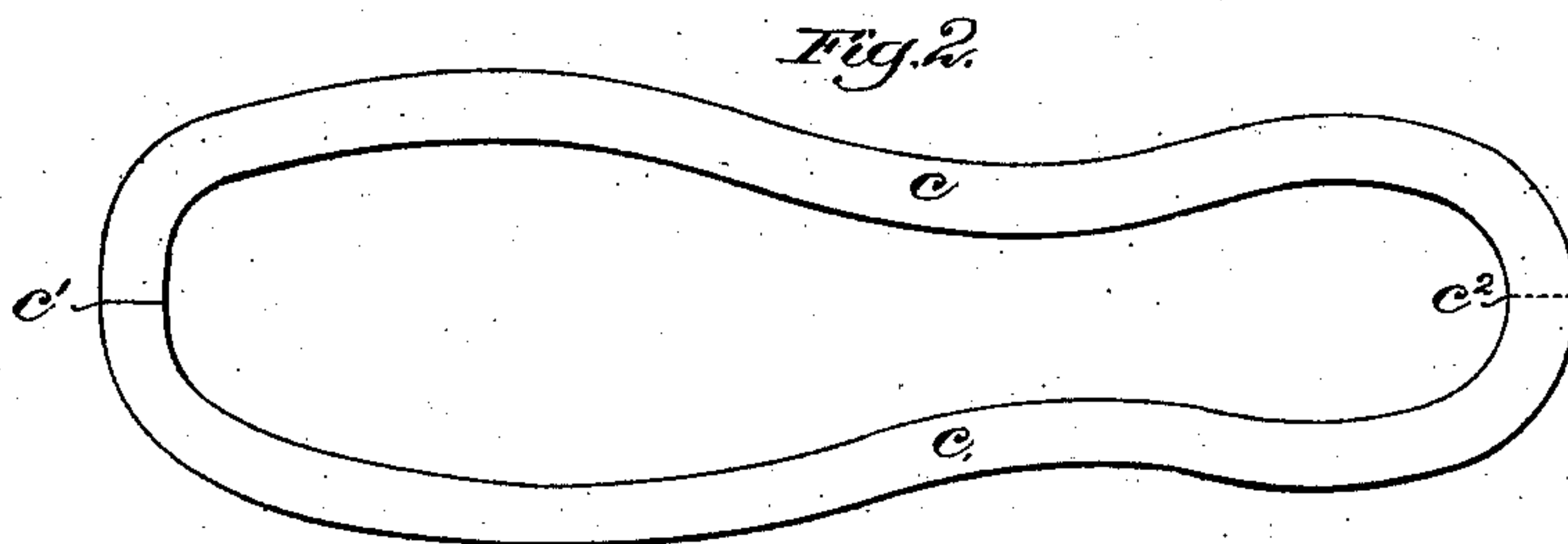
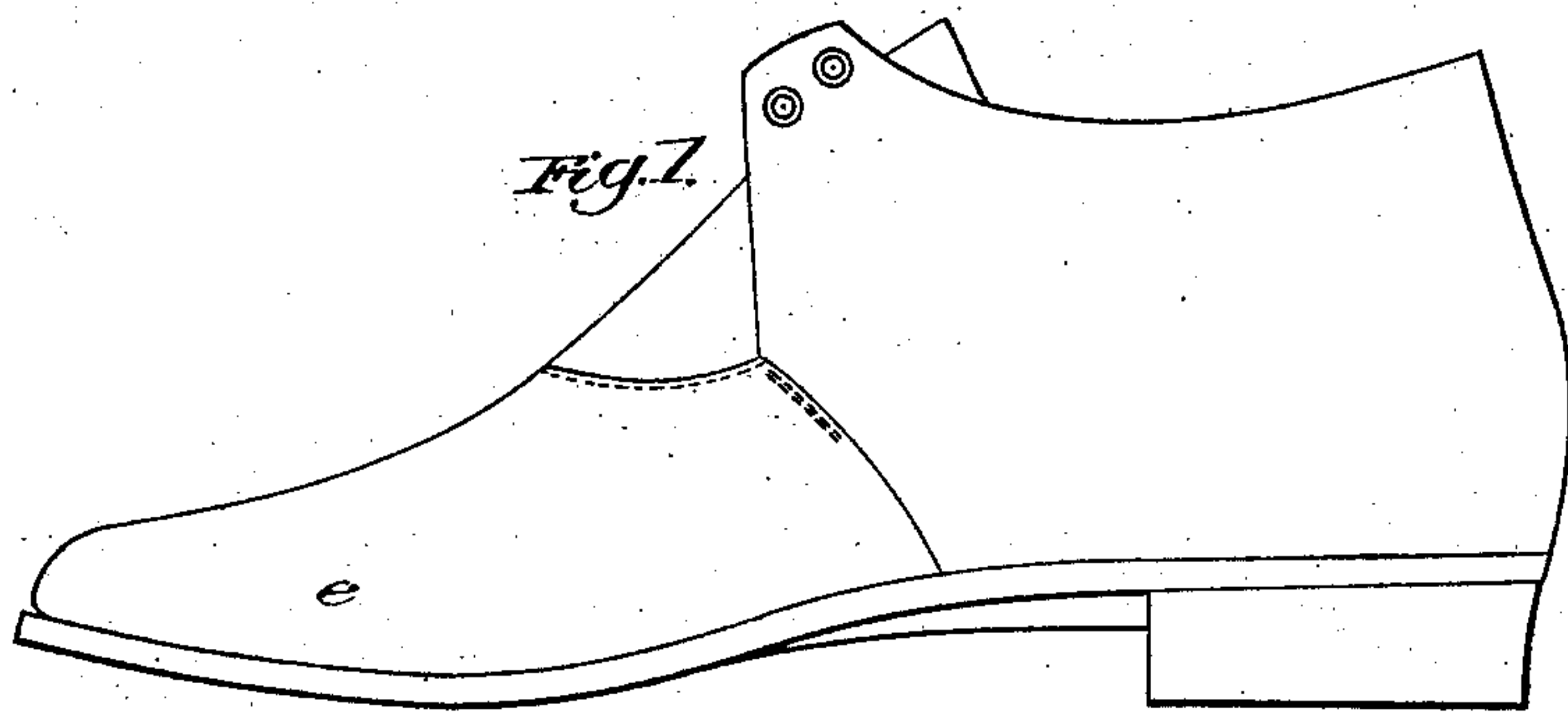


(No Model.)

G. W. GREGORY.
BOOT AND SHOE.

No. 290,986.

Patented Dec. 25, 1883.



Witnesses.

John F. C. Brinkley
Fred A. Powell.

Inventor.

George W. Gregory

UNITED STATES PATENT OFFICE.

GEORGE W. GREGORY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO EDWIN
L. SPRAGUE, OF SAME PLACE.

BOOT OR SHOE.

SPECIFICATION forming part of Letters Patent No. 290,986, dated December 25, 1883.

Application filed April 23, 1883. (No model.)

To all-whom it may concern:

Be it known that I, GEORGE W. GREGORY, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Boots and Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object a novel method of producing boots and shoes, whereby the points or inner ends of the metal or other driven fastenings employed to unite the soles and uppers are concealed and do not appear at the surface of the inner sole to interfere with the foot and mar the stocking.

Figure 1 represents in side elevation a shoe; Fig. 2, a metal rim or clinching surface, and Figs. 3 and 4 a cross-section of the shoe in process of construction.

In accordance with my invention, the inner sole, *a*, is channeled in from its edge for about seven-eighths of an inch, more or less, and preferably entirely about the said sole from heel to toe and return, forming a lip, *b*. In this channel and under its lip is placed a thin metal rim or clinching-surface, *c*, (see Fig. 2,) preferably made of sheet-steel, shaped to conform in outline with the shape of the inner sole. In Fig 2 the rim is shown as divided at *c'*, leaving it in one piece; but, if desired, the rim may be divided as shown by dotted line *c''*, Fig. 2. The metal rim *c* is placed in the channel of the inner sole under the lip *b*. The inner sole is laid upon and with the lip next the bottom of the last *d*. The upper *e* is drawn over the last and inner sole, and its edges are secured to the inner sole by tacks *f*, driven through the upper and the thickest part of the channeled edge of the inner sole, and the points of the said tacks meet or strike the metal rim and are arrested or clinched against the said rim in the channel. The outer sole, *g*, suitably channeled, as shown at *g'*, is placed on the lasted shoe, and is held there preferably by lasting-nails *h*. The last *d* is now removed from the shoe, and the latter is placed upon or over a rotatable horn, *k*, of a nailing-machine for driving nails or fastenings, or for inserting screws—for instance, a standard screw or cable wire machine—and the lip *b* of the channel rests on the tip of the horn. Next, the metal

or other driven sole-fastenings are driven through the outer sole, upper, and that part of the inner sole between the upper and the metal rim in the channel, and the said fastenings so driven or inserted have their points or ends clinched against or arrested by the said metal rim *c* or clinching-surface, leaving the lip *b* entire. The driven sole-fastenings having been clinched or arrested by the rim *c*, the shoe is removed from the horn and the operator lifts the lip *b*, seizes the metal rim, and pulls it out of the channel of the inner sole, and the channel lip is thereafter brought down on the inner sole to overlap or cover the ends or points of the tacks *f*, used in lasting, and also the driven fastenings. The tack *f* does not remain in the shoe, but merely holds temporarily the outer and inner soles together.

The sole applied outside the upper and inner sole may be composed of one or more layers or thicknesses of leather, and so also I desire it to be understood that I might make a nailed turned shoe on a horn by the aid of the metal rim. In this last-named class of shoe the one single sole which serves as the outer sole would be channeled, as is the inner sole, *a*, Fig. 3, the metal rim or clinching-surface would be applied thereon, and the upper, wrong side out, would be drawn about the sole, as is the upper shown in Fig. 3, and the edges of the upper would be tacked to the said sole, as at *f*. After this the last would be withdrawn and the shoe be placed on a horn, and the edges of the upper would be united to the said sole by fastenings driven first into the edge of the upper, then through the main part of the edge of the sole, and be stopped or clinched on the metal rim resting in the channel and between the lip *b* and the tip of the horn. After this the shoe would be removed from the horn and turned to bring the upper right side out, the metal rim would be removed, and the channel-lip *b* be pasted or connected in place, as it will also be in the shoe having the outer sole, *g*.

I do not broadly claim the employment of a metallic surface in a channel against which to clinch a nail or fastening; nor do I broadly claim concealing the points of nails in the channel in an inner sole.

I claim—

1. The improvement herein described in the manufacture of boots and shoes, it consisting in channeling the inner sole, placing a metallic rim or clinching-surface therein and
5 the inner sole on the last, drawing the upper over the inner sole on the last, confining the upper in place about the inner sole, applying the outer sole to the last, withdrawing the last from the lasted shoe and placing the latter,
10 with the metal rim or clinching-surface therein, on a horn, and driving the sole-fastenings through the outer sole, upper, and partially through the inner sole, and stopping or clinching their ends upon the said metal rim
15 or clinching-surface, and then removing the shoe from the horn and the metal rim from the channel in the inner sole, substantially as described.

2. That improvement in uniting a channeled
20 sole and an upper, which consists in placing a metal rim or clinching-surface in the chan-

nel of the sole, drawing the upper over the edge of the said sole on a last, fastening the edges of the lasted upper to retain the latter in position with relation to the said sole, re- 25 moving the last, placing the shoe upon a horn with the metal rim in the channel and the lip of the channel interposed between the said metal rim and the horn, and inserting fastenings through the upper and partially through 30 the sole, and stopping or clinching them on the metal rim, and removing the shoe from the horn and the metal rim from the channel, substantially as described.

In testimony whereof I have signed my 35 name to this specification in the presence of two subscribing witnesses.

GEO. W. GREGORY.

Witnesses:

JOS. P. LIVERMORE.

FRED A. POWELL.