(No Model.) J. G. ROSS. ART OR METHOD OF MANUFACTURING BOOTS OR SHOES. No. 332,362. Patented Dec. 15, 1885.

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Fig: 2. a 'a A Inventor; Winesses: John A. Kennie Per: broshy hegory his attys. Eminy. (\mathcal{D})

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN G. ROSS, OF WAKEFIELD, MASSACHUSETTS.

ART OR METHOD OF MANUFACTURING BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 332,362, dated December 15, 1885. Application filed October 21, 1885. Serial No. 180,476. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. Ross, of Wakefield, county of Middlesex, and State of Massachusetts, have invented an Improvement in

- 5 Art or Method of Manufacturing 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 an improved method of manufacturing welted shoes with a novel inner sole, whereby the stitches, instead of passing through the outer sole, upper, and inner sole, as usual, thus leaving
 a rough surface for the tread of the foot, are permitted to pass through the outer sole, upper, and through only a portion of the inner sole, so that a smooth surface is left for the tread of the foot, and a sock-sole is dispensed with.

The invention consists in the method of | making boots and shoes, which consists, first, in splitting the innersole from the heel to the ball, forming a separate outer face and tread-25 face, then inserting a metallic plate between the outer face and tread-face thus formed, securing the inner sole with the interposed plate to the bottom of a last, lasting the upper in the usual manner, the tacks thereby 30 entering the last at the fore part and clinching upon the metallic plate from the heel to the ball, securing a welt in the usual manner, applying the outer sole, removing the last and metallic plate, securing the outer sole to the 35 welt around the fore part in any usual manner, securing the outer sole, upper, and outer portion or face of the inner sole together around the heel and shank portion, the treadface of the inner sole at such time being tem-40 porarily turned back, and, lastly, pasting or otherwise securing the tread-face of the inner sole left by splitting down upon the outer face of the inner sole, thereby concealing the stitches and leaving a smooth surface for the

The invention to be described may be applied to a w shoe of any usual or suitable pattern.

55 The inner sole, a, which forms the essential feature of this invention, is split from the heel to the ball, leaving an outer face, a'', and a tread-face, a^2 . Between the outer and tread faces, $a' a^2$, of the inner sole a metallic plate, 60 b, is inserted, it being of similar shape to the contour of the sole. The inner sole, with the metal plate b inserted, is laid upon the last A and secured by lasting-tacks. The upper B, as above stated, of any suitable pattern, is then 65 drawn over the last and lasted in usual manner, and about the shank and heel the upper is attached to the inner sole by tacks or other usual driven fasteners, which, however, clinch upon the metal plate b and do not enter the 70 thin flap a^2 . About the ball and fore part the upper is temporarily attached to the inner sole by tacks, which are drawn out as the welt c is secured to the inner sole, which, as usual, is suitably channeled. At this stage 75 of the proceeding, or at any other convenient time, the last is withdrawn and the tread face a^2 of the inner sole, a, is turned back or pushed into the toe part of the shoe, and the metallic plate removed, after which the outer sole, 80 upper, and part a' of the inner sole, a, are united by stitches or fastenings passing through and through. This being done, the tread-face a^2 of the inner sole, a, is turned back and pasted or cemented down upon the 85 outer face, a', thereby concealing the stitches, and leaving a smooth surface for the tread of the foot over the heel and shank portion of the shoe, and, as herein shown, the shoe being of the welted class, the tread-face of the inner 90 sole, a, at the fore part, is also smooth, thereby entirely dispensing with a sock-sole. The shoe herein described is simple to manufacture, and the sewing about the heel and shank can be done on an ordinary machine 95

45 tread of the foot, all substantially as will be described.

Figure 1 shows in side view a button-gaiter constructed in accordance with this invention, a portion thereof being broken away to more 50 fully show the novel features, and Fig. 2 shows an inner sole with the interposed metallic plate laid upon a last. employing a straight needle, thereby saving considerable in the expense of manufacturing the shoe. I claim—

The herein described improvement in the 100 art or method of manufacturing boots and shoes, which consists in first splitting the inner sole from the heel to the ball, thereby forming an outer face and a tread-face, as de-

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scribed, then inserting a metallic plate between the outer face and tread-face, securing the inner sole with the interposed plate to the bottom of a last, lasting the upper and securing a welt in the usual manner, applying the outer sole, removing the last and metallic plate, securing the outer sole to the welt around the fore part, uniting the outer sole, upper, and outer face of the inner sole around
the heel and shank portion, the tread-face of the inner sole at such time being temporarily turned back, and, lastly, securing the tread-

face of the inner sole down upon the outer face of the inner sole, thereby concealing the stitches and leaving a smooth surface for the 15 tread of the foot, substantially as described. In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN G. ROSS.

Witnesses:

G. W. GREGORY, F. L. EMERY.

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