

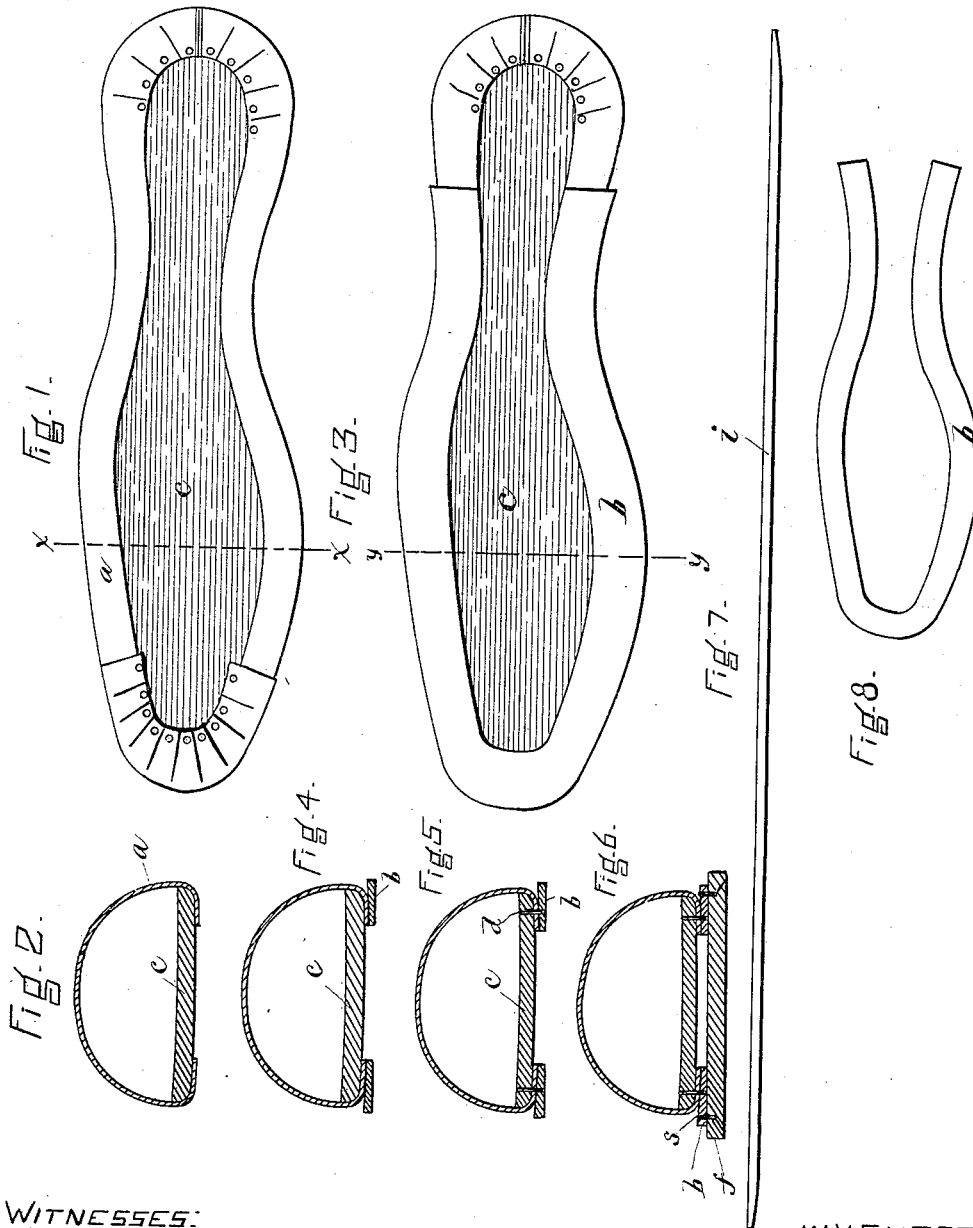
(No Model.)

M. L. KEITH.

MANUFACTURE OF WELTED BOOTS OR SHOES.

No. 381,384.

Patented Apr. 17, 1888.



WITNESSES:  
*H. Brown.*  
*A. R. Harrison.*

INVENTOR:  
*Myron L. Keith.*  
*Wright Brown Corralley.*  
*Atty.*

# UNITED STATES PATENT OFFICE.

MYRON L. KEITH, OF BROCKTON, MASSACHUSETTS.

## MANUFACTURE OF WELTED BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 381,384, dated April 17, 1888.

Application filed January 13, 1888. Serial No. 200,652. (No model.)

*To all whom it may concern:*

Be it known that I, MYRON L. KEITH, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in the Method of Making Weltd Boots and Shoes, of which the following is a specification.

This invention has for its object to facilitate and improve the application of welts to the uppers of boots and shoes; and it consists, as a whole, in the following steps, viz: first cementing the welt to the inwardly-turned edge of the lasted upper, then permanently attaching the welt to the upper and inner sole by stitches or other suitable fastenings, then cementing the outer sole to the welt, and finally permanently securing the outer sole to the welt by the usual means, the welt being molded to the desired form prior to its application to the upper, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents the bottom of a lasted upper prior to the application of the welt. Fig. 2 represents a section on line *x x*, Fig. 1. Fig. 3 represents a view similar to Fig. 1, showing the welt cemented to the upper. Fig. 4 represents a section on line *y y*, Fig. 3. Fig. 5 represents a section showing the permanent fastenings which attach the welt to the upper and the inner sole. Fig. 6 represents a similar section showing the outer sole secured to the welt. Fig. 7 represents the strip from which the welt is made, and Fig. 8 represents the molded welt made from said strip.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I last the upper *a* in the usual manner, and to its edges, which are turned inwardly on the bottom of the last, I secure by cement a welt, *b*, the inner side of the welt being first coated with cement and then pressed by any suitable means against the inwardly-turned portions of the upper. I prefer to press the welt against the said portions of the upper by the flexible pad of a sole-laying machine such as is shown in various patents issued to the Boot and Shoe Sole Laying Company. After the cement has sufficiently dried or set, the welt is secured to the upper and to the inner sole, *c*, by stitches or

other permanent fastenings, *d*, as shown in Fig. 5. This method of securing the welt entirely does away with tacks or nails in the welt before permanently fastening it to the shoe, and obviates the various well-known objections to the multiplication of tacks or nails in a boot or shoe bottom. The outer sole, *f*, may afterward be secured by first cementing it to the welt or inner sole by the use of a sole-laying machine such as is above referred to, and then, after the cement has set permanently, attaching the outer sole to the welt by stitches *s* or other permanent fastenings. By thus using cement for the preliminary attachment of both the welt and outer sole I entirely discard tacks or nails, excepting such as may be employed in lasting the upper.

I employ a molded welt substantially such as is described in my pending application for patent of earlier date than the present application. In making said welt I first cut from a piece of sole-leather a straight strip, *i*, (shown in Fig. 7,) and then wet said strip and place it in a mold or chamber, the inner surface of which has the outline which it is desired to give the outer edge of the welt, the strip *i* being suitably bent and manipulated to cause it to lie against the wall of said mold in the form of a skeleton sole. Then, when the strip is properly adjusted within the mold, I apply a heavy pressure to the welt by means of a follower inserted in the mold, and thus make the curved welt perfectly flat. The pressure is maintained until the welt has dried, the form thus made permanent, so that the molded welt can be placed on and secured to the bottom of the upper with nearly the same ease and facility as a sole.

It is obvious that the preliminary fastening of the outer sole may be effected by other methods than by cement.

I claim—

1. In the manufacture of weltd boots or shoes, the improved step consisting of temporarily attaching a welt molded to required shape to the upper by means such as cement, and then permanently attaching said welt to the upper and inner sole, as set forth.

2. The improved method of making weltd boots or shoes herein described, the same con-

sisting in first temporarily attaching a welt  
molded into proper final shape to the upper  
by means such as cement, then permanently  
attaching the welt to the upper and inner sole,  
5 then temporarily securing the outer sole to the  
welt, and finally permanently attaching the  
outer sole to the welt outside of the upper, as  
set forth.

10 3. The improved method of making welted  
boots or shoes herein described, the same con-  
sisting in molding a strip of leather into a form  
corresponding to the margin or contour of the  
outer sole, temporarily securing said molded

welt to the upper, permanently attaching said  
molded welt to the upper and inner sole, and 15  
finally attaching the outer sole to the molded  
welt.

In testimony whereof I have signed my name  
to this specification, in the presence of two sub-  
scribing witnesses, this 23d day of December, 20  
A. D. 1887.

MYRON L. KEITH.

Witnesses:

RUFUS E. PACKARD,  
IRA A. LEACH.