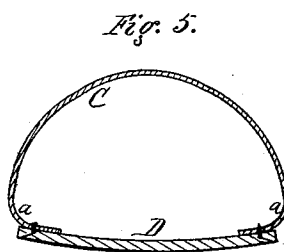
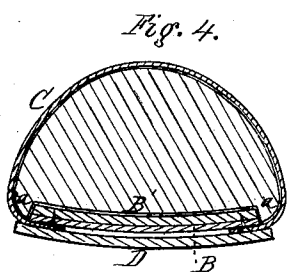
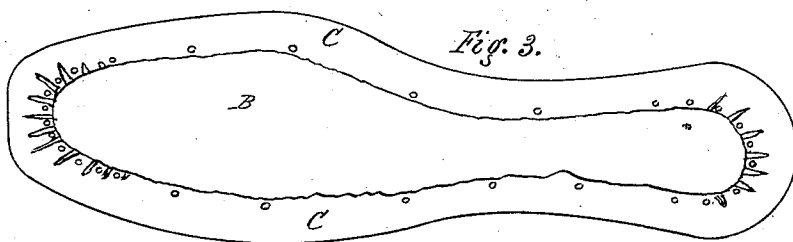
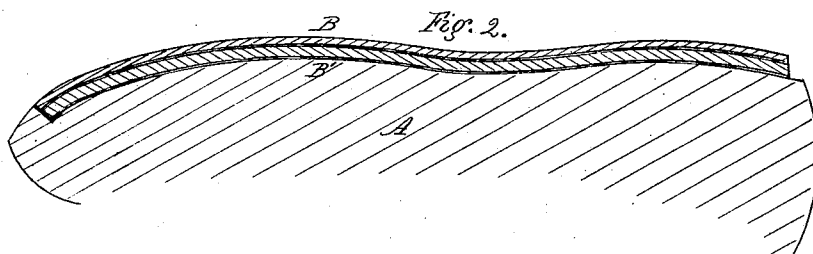
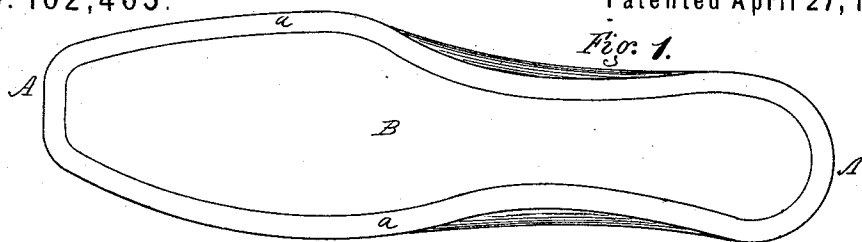


J. ELAM.
Insole, or Former for use in Making Boots and Shoes.
 No. 162,463. Patented April 27, 1875.



Witnesses.
Archie Peirce
Charles Engel

Inventor.
Jahez Elam
per R. F. Osgood
att'y

UNITED STATES PATENT OFFICE.

JABEZ ELAM, OF ROCHESTER, NEW YORK, ASSIGNOR TO RICHARD
TRENAMAN, OF SAME PLACE.

IMPROVEMENT IN INSOLES OR FORMERS FOR USE IN MAKING BOOTS AND SHOES.

Specification forming part of Letters Patent No. **162,463**, dated April 27, 1875; application filed
April 8, 1875.

To all whom it may concern:

Be it known that I, JABEZ ELAM, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Making Boots and Shoes, of which the following is a specification:

My invention consists in forming machine-stitched boots and shoes, having a single sole only, by the employment of a "former," to which the "upper" is lasted preparatory to stitching, and which is removed when the stitching is done.

The several figures in the drawings illustrate the successive steps in making a boot or shoe in my improved manner.

Figure 1 is a plan of the last with the former attached thereto in condition for the lasting of the upper; Fig. 2, a vertical section of Fig. 1. Fig. 3 is a plan similar to Fig. 1, but showing the upper lasted in place and ready for the reception of the sole. Fig. 4 is a cross-section, showing the shoe lasted, the sole in place, and the whole ready to be sewed when the last has been removed. Fig. 5 is a cross-section of the finished shoe.

The former B B' is made of the same shape of the sole, but is narrower and shorter, so as to leave a space, *a*, outside, sufficient for the horn of the sewing-machine to pass all around without sewing through the former. It is made of two thicknesses, as shown, the outer one being of leather or other firm substance, while the inner one is of rubber, or a substance that is elastic and soft. C is the upper, and D the sole.

The operation is as follows: The former is first fitted to the last, as shown in Fig. 1. The upper is then applied, being drawn over and tacked to the former in the same manner as it is tacked to the insole in common shoes. This is indicated in Fig. 3. The sole is then applied to the bottom, as shown in Fig. 4, and after the last is removed the shoe is run through the sewing-machine to stitch the sole

in the ordinary manner. The horn of the sewing-machine passes outside the edges of the former in the space *a*, and therefore the stitching passes only through the sole and the lap of the upper that rests thereon. When the sewing is accomplished the former is drawn out of the shoe, which is easily done, since it is held only by the projecting points of the tacks, which were inserted inward from the laps of the upper. These tacks are rolled and headed down to prevent injury after the former is removed, and the shoe is then complete, as shown in Fig. 5, with the exception of covering the interior of the sole with a suitable lining.

By making the former in two parts, B B', as before described, they are more readily drawn from the tacks in removing. The first thickness, also, by being hard, gives a strong hold to the tacks after passing through the upper, while the inner thickness, by being soft, prevents bending or twisting of the thin points of the tacks, and allows easy separation, as before described.

I do not claim, broadly, a shoe formed with a single sole; neither do I claim sewing outside the edge of an insole through the upper and sole of a single-soled shoe; neither do I claim forming a cavity in the whole bottom of the last to receive the former.

What I claim, and desire to secure by Letters Patent, is—

In the manufacture of single-soled boots and shoes, the former or inner sole herein described, composed of one thickness of leather and one of rubber, to which the upper is lasted or secured, as herein shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JABEZ ELAM.

Witnesses:

R. F. OSGOOD,
ARCHIE BAINE.