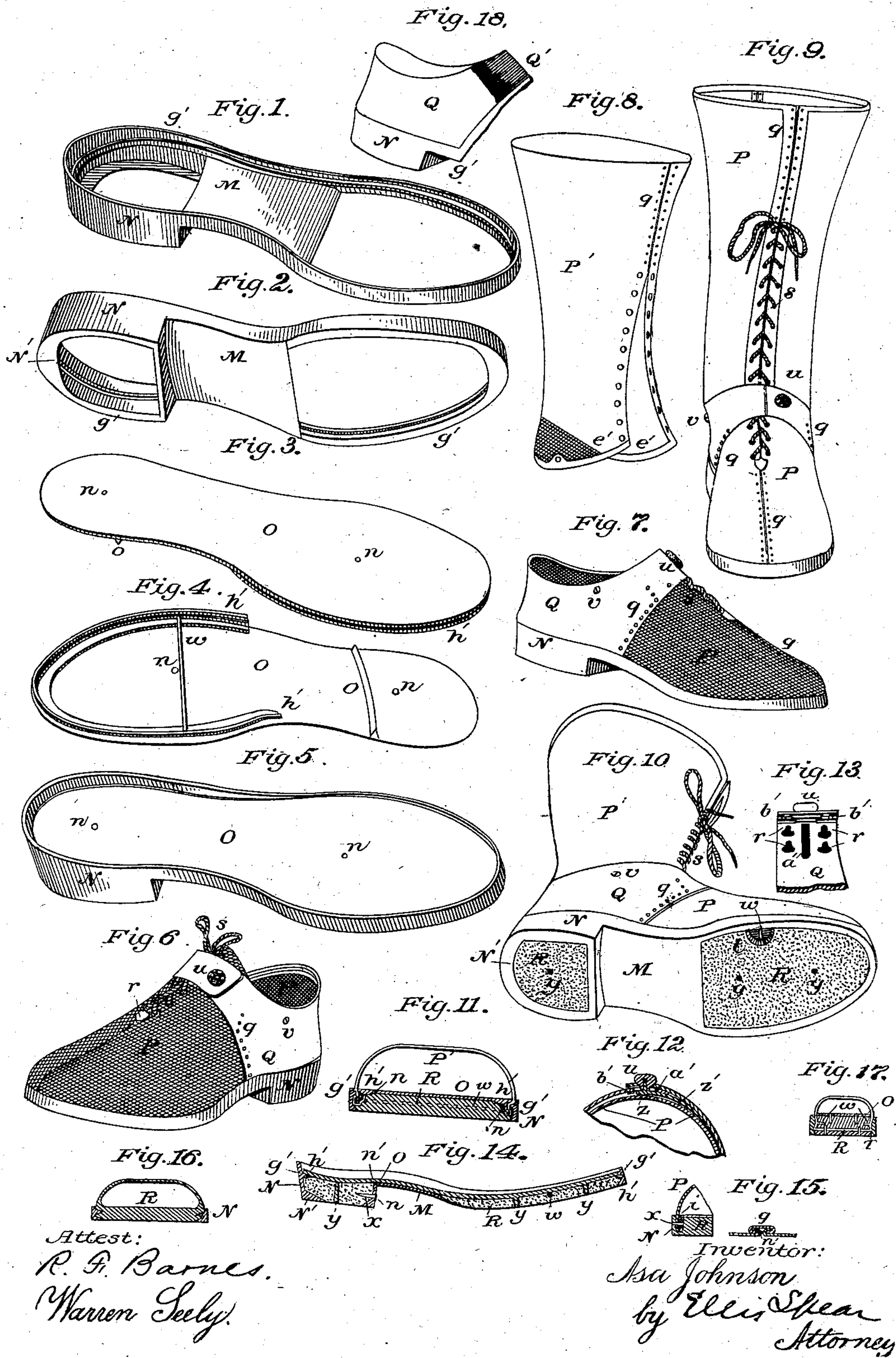


(Model.)

A. JOHNSON.
BOOT OR SHOE.

No. 259,163.

Patented June 6, 1882.



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UNITED STATES PATENT OFFICE.

ASA JOHNSON, OF NEW YORK, N. Y., ASSIGNOR TO THE AMERICAN BOOT, SHOE, AND LAST COMPANY, OF SAME PLACE.

BOOT OR SHOE.

SPECIFICATION forming part of Letters Patent No. 259,163, dated June 6, 1882.

Application filed April 2, 1880. (Model.)

To all whom it may concern:

Be it known that I, ASA JOHNSON, of the city, county, and State of New York, have invented new and useful Improvements in Metallic and other Boots and Shoes, of which the following is a specification.

My invention relates to the construction of boots and shoes, and more particularly to making such boots and shoes of metal and of peculiar style and shape, adapted exactly to fit the foot.

My invention consists in metallic boots and shoes made the exact shape of the feet and legs of the persons for whom they are intended, and also in surrounding the sole with a metallic rim made thicker at the toe and back part of the heel, so as to have a broader wearing-surface at those points than on other portions where there is less wear, in order to prevent any possibility of their wearing faster at the heel and toe than at other points.

It also consists in the construction of an open-front elastic-laced boot and shoe that may be worn either as a front elastic-laced boot or as a shoe; and it finally consists in the particular construction and arrangement of the various parts, as fully hereinafter explained.

In the accompanying drawings, Figure 1 is a perspective of a metallic rim which forms the external edge of a boot or shoe, and to which the soles and upper are attached. Fig. 2 represents a bottom view, in perspective, of the rim shown in Fig. 1. Fig. 3 is a top plan view of the insole to be used in connection with the rim. Fig. 4 is a bottom view of the insole. Fig. 5 shows the rim and insole. Figs. 6 and 7 are perspective views of a metallic shoe complete. Fig. 8 represents the adjustable boot-leg. Fig. 9 shows the adjustable leg in position. Fig. 10 shows the side and bottom of a boot or shoe. Fig. 11 is a cross-section of the foot of a boot or shoe. Fig. 12 is a cross-section through the instep, showing the lacing. Fig. 13 illustrates the fastening device. Fig. 14 is a longitudinal section, showing the manner of securing the soles to the rim. Fig. 15 shows details of construction. Fig. 16 is a cross-section of a boot or shoe, formed together whole in one piece, including the sole. Fig. 17 is a modification of Fig. 11. Fig. 18 is a modification showing a chain fastening device.

The construction and operation of my metallic boot and shoe are as follows:

The different parts, portions, or pieces of the boots are prepared by certain mechanism invented by me for that purpose.

On the bottom of the last are placed pins or projections, which pass through corresponding holes in the insole O, which has on it a projection extending downward from it a suitable distance to allow the lower edge of the upper to be locked over it. The upper P is then placed over the last, and its edges drawn down and locked over the edge of said projection to hold it in its proper position.

The metal rim N is preferably made in two or more pieces, and on its inner surface are two projections, which are then placed and pressed against the edge of the sole and upper, and said projections carry the upper P into the grooves that are made in the projection on the insole O, where the upper is firmly held by said projection on the insole and the metal rim N. The ends of said rim N are then brazed or soldered together at the toe and back part of the heel, and the said rim, upper P, and insole O and its projections are all soldered together, as represented in the drawings. There are also nails, rivets, screws, or pins driven through the rim into the sole, which is made of any suitable material, cemented and pressed into the cavity or mold formed by the insole and metal rim N. It is also held by the lower projection, N', and by one or more wires, W, extending across from one side of the rim to the other, passing between the different layers of the sole, such layers being cemented to the wires and to each other, and also to the insole and rim, with shellac, rubber, or other suitable cement. An additional fastening is also afforded by the nails, rivets, or screws mentioned, which pass through the rim, upper, and insole, and into the sole R, and are soldered to the rim, to prevent them from working loose and to make a smooth and neat finish to the sole. All of the nails, screws, or rivets are soldered, as described, to such rim and insole in order to keep the insole perfectly smooth on its upper side, by which the comfort of the wearer is increased and wear of the stockings diminished.

At the shank of the sole of this boot or shoe

is a piece of metal, M, riveted and soldered to the insole O, and metal rim N for the purpose of forming a thin stiff shank to the boot and shoe, and also to form a recess, cavity, or groove to receive the edge of the sole R, as shown in Fig. 10. This piece may be cast to or with the metal rim N. There may also be cast one or more cross-wires, and also a toe-piece, a counter, and as much of the upper as may be desired, with the said rim.

By the use of the metal rim having a broader wearing-surface at the heel and toe, the heels may be made low and broad, so as to look well and always retain their perfect shape.

The soles are always sure to be perfectly square under the feet, and as the wearing-surface of the soles is made on a true circle struck from the hip-joint of the wearer, a rolling contact with the ground is had, which insures a square and true bearing.

This metallic boot or shoe has a wire-gauze upper and an outer sheet-metal counter, and is made so it can be worn either as an open-front elastic-laced boot or as a front-laced shoe. It may have an adjustable detachable leg made of wire-gauze or its equivalent. It is open in front a sufficient distance, so that when laced with an elastic string or lacing it may fit the leg and still be easily drawn on and off without unlacing. Its lower end is dipped in solder or its equivalent, so as to form a smooth edge and to cause it to retain its original and proper position. The solder extends upon its two opposite sides at the ankle, so as to form two bars, through which holes are made, as represented in the drawings. There are also corresponding holes made in the sheet-metal counter to receive the eyelet-shaped screw-nut and its screw. (See V, Figs. 14, 15, and 18.)

There is sufficient room left between the upper edge of the wire-gauze upper and the sheet-metal counter to allow the wire-gauze leg to be placed between them, so that when a boot is desired the leg is placed between the upper and the counter, where it is held by the eyelet screw-nuts placed through the holes in the leg P and counter Q.

The screw that passes through the screw-nut from the opposite side of the material forms a vise to hold the parts together, and also a hinge on which the leg can move backward and forward when walking. The foot of the boot or shoe and its leg are then laced together with elastic lacing, which passes through suitable eyelets in the front of the boot or shoe.

However, I do not in this application claim this detachable leg, intending to make it the subject of another application.

There is also an inelastic strap, chain, or string at the instep of the boot, which secures it together at that point, where there is very little or no movement caused by the bending of the foot. The ends of said strap or chain are secured together by a device consisting of an eyelet-shaped screw-nut clamping device, which clamps the straps or chains firmly together and holds them there, the device being easily regulated by turning the button or nut. The screw-nut button, with the screw in its end, moves back and forth in the slot *a* in the end of the strap or chain, thereby allowing the end to be slipped in or out of the vise, as may be necessary, to loosen or tighten the inelastic strap, chain, or string, to correspondingly loosen or tighten the boot or shoe at the instep, and to facilitate the operation of putting on and taking off the same.

Having thus described my invention, what I claim is—

1. A boot or shoe having its counter made of sheet metal and the upper of flexible metallic material.

2. A boot or shoe having its counter made of sheet metal and the upper of wire-gauze.

3. The combination of the wires or pins, connected by solder in the manner described, with the filling of leather, papier-maché, or equivalent material, as and for the purpose set forth.

4. The combination of the metallic insole with the upper sole, formed of the metal-plate instep, the metallic rims, and the filling of papier-maché or equivalent material, as set forth.

5. The metallic rim or flange having the enlarged integral heel-flange N', as set forth.

6. The combination, with the wire-gauze upper, connected to the sole by solder or equivalent means, of the sheet-metal counter and the adjustable strap, with its screw-clamp, as set forth.

7. The combination, with the wire-gauze upper, of the elastic lacing, as and for the purposes set forth.

In testimony whereof I hereunto set my hand before two subscribing witnesses.

ASA JOHNSON.

Witnesses:

FRANK MIDDLETON,
C. N. ATWOOD.