A. VAN WAGENEN.
Boot and Shoe.

No. 207,227. Patented Aug. 20, 1878.

Fig:1.

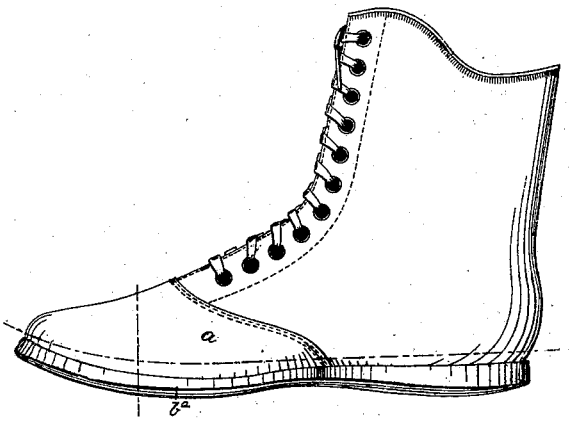


Fig:2.

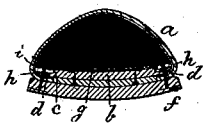


Fig:3.

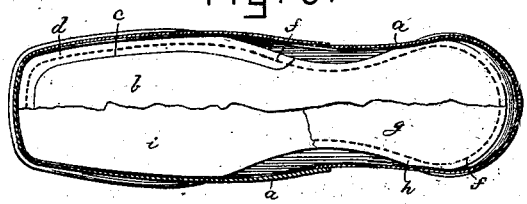


Fig:4

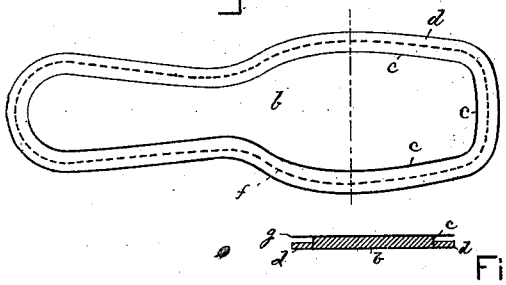


Fig:5.

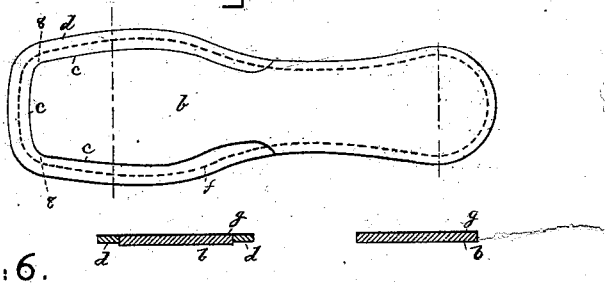


Fig:6.

Fig:8.

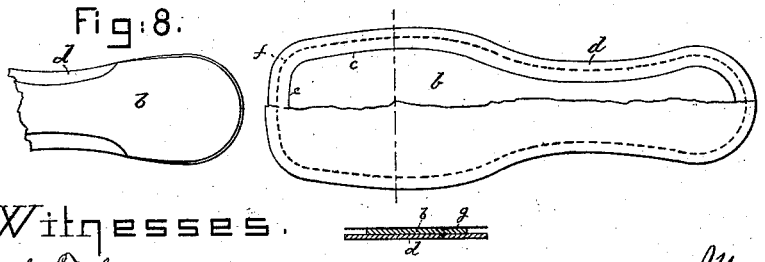
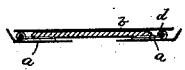


Fig:7.



Witnesses.
L. F. Connor.
N. E. Whitney.

Inventor.
Albert Van Wagenen
by Crosby & Gregory, Attys.

UNITED STATES PATENT OFFICE.

ALBERT VAN WAGENEN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE HATCH FLEXIBLE SEWED SHOE COMPANY, OF SAME PLACE.

IMPROVEMENT IN BOOTS AND SHOES.

Specification forming part of Letters Patent No. **207,227**, dated August 20, 1878; application filed June 24, 1878.

To all whom it may concern:

Be it known that I, ALBERT VAN WAGENEN, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Boots and Shoes, of which the following, in connection with the drawings, is a specification:

This invention relates to boots and shoes, and has for its object to produce a flexible soled shoe which will not rip, as will common machine-sewed shoes, wherein the stitches uniting the outer sole and upper extend through the inner sole at or near its edge, (said edge being of the same thickness and rigidity as the main part of the main inner sole,) and in which the edge of the upper will not cut through at the toe by blows against it from the outside, as is common in shoes wherein the upper rests directly against the hard upper corners of the inner sole.

In carrying out this invention, the main inner sole, shortened at front or narrowed at the ball in front of the shank, or both, is combined with an inner-sole welt placed about the edge of the main inner sole to receive the stitches which unite the outer sole and upper together, and, in connection with said inner sole and inner-sole welt, may be, and preferably will be, employed a supplemental inner sole, and also a sock-sole, such as described in another application for patent filed in the United States Patent Office concurrently with this.

Figure 1 represents, in side elevation, a shoe made in accordance with one form of this invention; Fig. 2, a cross-section thereof; Fig. 3, a top view, the upper being cut away to show the interior of the shoe, such figure also showing part of a sock-sole and supplemental sole; Figs. 4, 5, and 6, bottom views and sections of soles of different forms, but all containing the invention herein claimed; Fig. 7, a modification showing the inner-sole welt as corded, and Fig. 8 a modification to be hereinafter referred to.

The upper *a* and outer sole, b^2, may be of any usual material and shape. The main inner sole, *b*, of substantially uniform thickness from side to side, has placed about its edge *c* an inner-sole welt, *d*, such welt being composed of leather made as an integral part of the main inner sole, as in Figs. 2, 3, and 4, or of buck or sheep skin, or cloth, or other suitable material, placed about or connected with the main inner sole, as shown in Figs. 5, 6, and 7, the soft and flexible edges of the said sole-welt extending outward in contact with the upper, about the toe or ball of the foot, outside the seam connecting the outer sole, upper, and inner-sole welt, thereby preventing the upper, when struck at the outside, from coming in contact with a hard portion of the inner sole and being cut, as would be the case were it not for the welt or flexible soft part so interposed as a cushion between the upper and rigid part of the inner sole inclosed between the stitches at opposite sides of the shoe. This welt may extend about the toe or the ball and toe of the shoe, as shown in Fig. 3, or entirely about the sole, as shown in Fig. 4.

The inner sole, *b*, and inner-sole welt are, in Figs. 2 and 3, covered by means of a supplemental inner sole, *g*, which extends across them, and receives at its edges the stitches, which also extend through the outer sole, upper, and inner-sole welt, and the edges of the inner-sole welt and supplemental inner sole project outward from the seam or stitches *f* to the upper, and act as a cushion for the upper, so that when struck on the outside the upper will not be cut by coming in contact with a hard portion of the inner sole. This supplemental inner sole will be of cloth or soft leather.

To prevent the stocking from meeting the waxed thread, or from being worn by the lasting-tacks clinched into the inner sole, a sock-sole, *i*, of thin leather, or sheep or buck skin, or cloth, is pasted upon the surface of the fibrous supplemental inner sole, as described in my other application.

If desired, the inner sole may be of leather-board or leather, and the inner-sole welt be made of a piece of skiving, or sheep or buck skin cut of sole shape, and pasted or cemented at one side of the inner sole, while the other side of the sole is covered with a supplemental inner sole, *g*, as shown in Fig. 6 and the section below it. This inner-sole welt may be corded, as shown in Fig. 7, to assist its action as a cushion.

It is a well-known fact to manufacturers

that machine-sewed shoes rip at the ball of the foot, not because of lack of strength of the thread uniting the outer sole, inner sole, and upper, but because of the unequal bending of the connected outer and inner soles, which causes one sole to move over the other, and which cuts the thread. When the stitches uniting the outer sole and upper do not pass through the ball of the inner sole this cutting is obviated.

Fig. 8 shows an inner sole so cut away at the shank that the stitches pass through the heel-seat only, the inner-sole welt being placed at each side of the shank.

The inner-sole welt will in some cases be cut away at the extreme forward end of the inner sole, as shown in dotted lines 8, Fig. 5.

I claim—

1. In a boot or shoe, an inner sole, *b*, and upper combined with an independent inner-sole welt stitched to the upper and outer sole outside the toe or ball and toe of the inner sole, substantially as described.

2. A boot or shoe composed of an outer sole, upper, inner sole, inner-sole welt, and supplemental inner sole, the upper, outer sole, inner-sole welt, and supplemental inner sole being united by the same fastening devices extending through all of them, substantially as described.

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

ALBERT VAN WAGENEN.

Witnesses:
G. W. GREGORY,
N. E. WHITNEY.