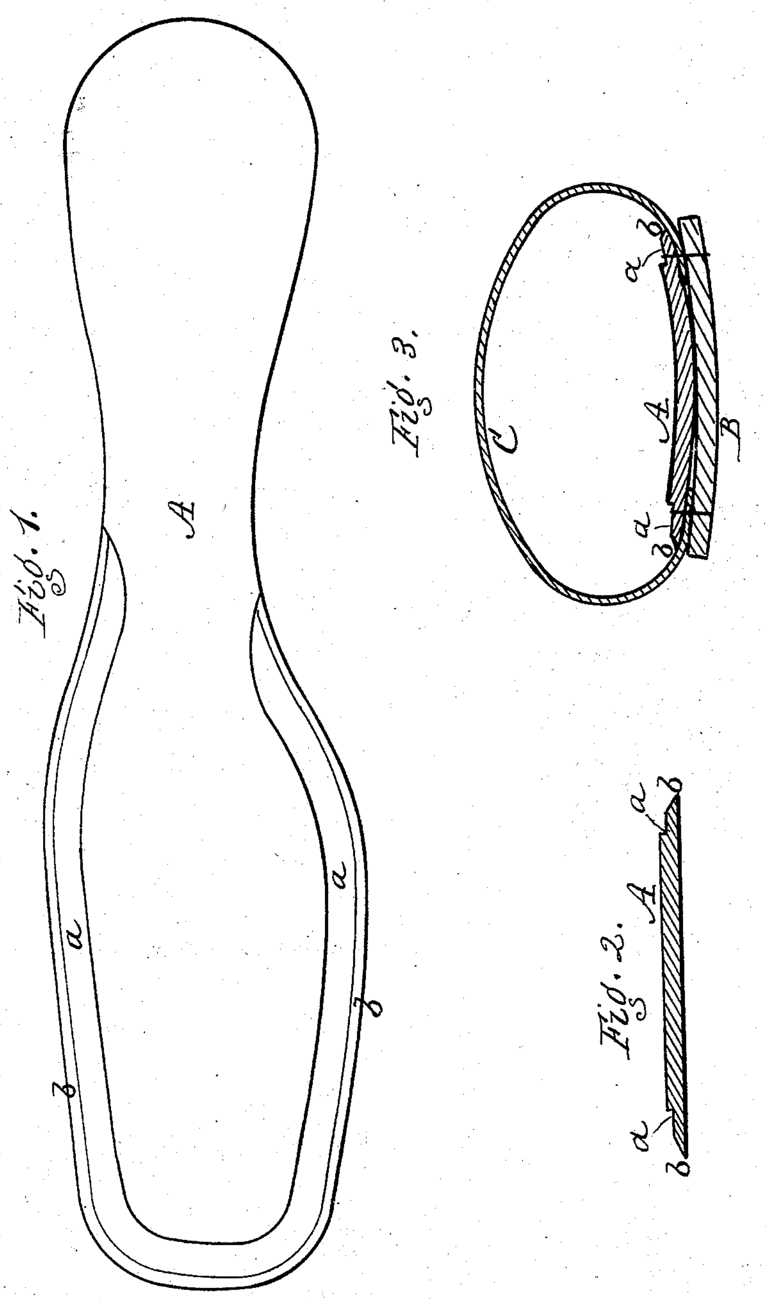
W. H. WOOD.

Boots and Shoes.

No. 211,362. Patented Jan. 14, 1879.



Attest.
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UNITED STATES PATENT OFFICE.

WILLIAM H. WOOD, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO DEVALSON G. WEAVER, OF SAME PLACE.

IMPROVEMENT IN BOOTS AND SHOES.

Specification forming part of Letters Patent No. **211,362**, dated January 14, 1879; application filed November 30, 1878.

To all whom it may concern:

Be it known that I, WILLIAM H. WOOD, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of the inner sole. Fig. 2 is a cross-section of the same. Fig. 3 is a cross-section of a shoe showing my improvement.

My improvement relates to machine-sewed boots and shoes. The design is to relieve the stiffness and rigidity of the same, to produce greater strength in the stitching, to insure longer wear, and to render the same easier to the wearer.

My invention consists of an insole having its edge forward of the instep portion reduced in thickness to form a seat for the line of stitching, and a beveled or chamfered edge to prevent the cutting of the upper, all as hereinafter described.

A represents the inner sole. From the heel forward to the instep it is of usual form and of full thickness at the edges. From the instep forward on each side, and around the toe, the edges of the sole are reduced in thickness by cutting off a portion at the top—say, one-fourth of an inch, more or less, inward toward the center, forming thereby a sunken seat, *a*, which allows the line of stitching to lie below the top of the sole. The outer edge of this seat is chamfered or beveled off, forming a thin edge, *b*, which lies next to the upper. Being very thin and flexible, it prevents the cutting or breaking of the upper over it, which occurs where the edge is thick and rigid.

The inner sole, A, is stitched to the outer sole, B, and upper C in the ordinary manner of machine-sewed shoes, the said stitching passing through all of said parts on the inside of the shoe; but instead of passing through the whole thickness of the insole forward of the shank, as in ordinary shoes, it passes only through the thin seat *a* at the edge, which, while it preserves the essential strength of the leather, insures great flexibility, as the stiff upper portion, which is very hard and has but little strength, is removed. From the great stiffness of both the outside and inside soles in ordinary machine-sewed shoes the front portion is very rigid and not easily bent, which renders them painful to the wearer, while the great strain upon the stitching causes it soon to break out. By reducing the thickness of the edges of the insole, forming the depressed seat *a*, this stiffness is substantially removed, and a stay on the inside of the upper is still left, which prevents the stitching striking directly into the upper. The stitching is also sunken below the level of the top of the sole, so that it cannot injure the foot. The thin feather-edge *b* at the outer edge of the seat, as before described, protects the upper from breaking or being cut. To still further increase the flexibility of the inner sole, it is cut or gashed at intervals crosswise on the bottom, but not deep enough to cut through. The improvement above described is applicable to all machine-sewed work, such as boots, shoes, slippers, &c., for men, women, and children.

I am aware that the edges of insoles have been beveled or chamfered off to prevent cutting of the upper; also, that the stitching has been made to sink into a channel. Such I do not claim.

What I claim as new is—

An improvement in the manufacture of boots and shoes consisting of an insole having its edge forward of the instep portion reduced in thickness to form the seat *a* for the line of stitching, and a beveled or chamfered edge, *b*, all substantially as and for the purpose specified.

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

WILLIAM H. WOOD.

Witnesses:
JOHN H. LUTZ,
R. F. OSGOOD.