C. F. HILL.

Boots and Shoes.

No. 162,923. Patented May 4, 1875.

Fig. 1.

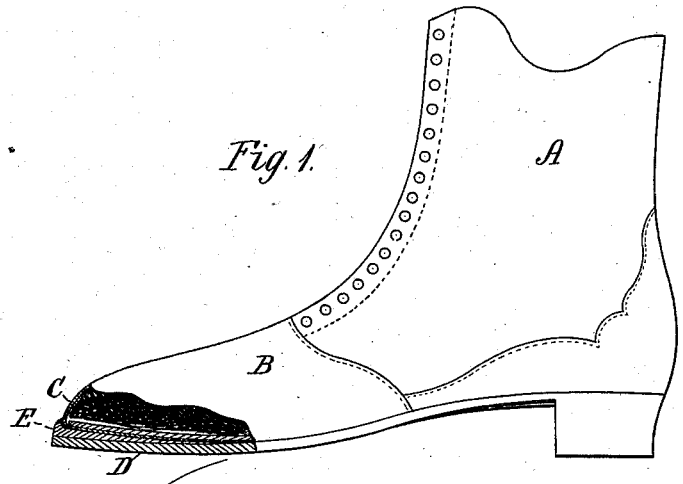


Fig. 2.

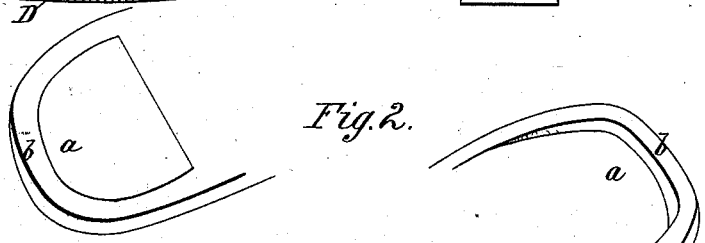


Fig. 3.

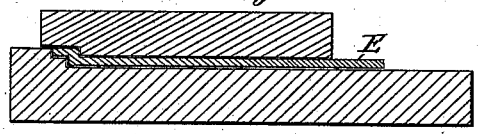


Fig. 6.

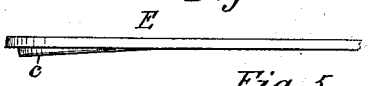


Fig. 4.

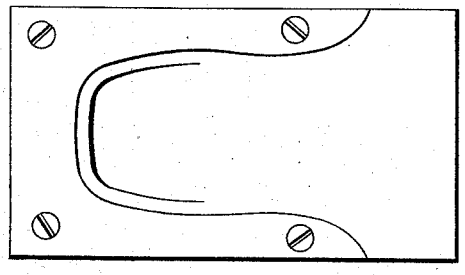
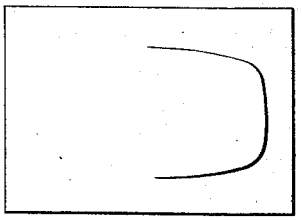


Fig. 5



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UNITED STATES PATENT OFFICE.

CHARLES F. HILL, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN BOOTS AND SHOES.

Specification forming part of Letters Patent No. **162,923**, dated May 4, 1875; application filed April 2, 1875.

To all whom it may concern:

Be it known that I, CHARLES F. HILL, of Baltimore city, State of Maryland, have invented a 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 drawing, forming a part of this specification, in which—

Figure 1 is a side elevation of a shoe constructed according to my improved method, with a portion broken away to show said construction. Fig. 2 are perspectives of the molded tap-soles. Fig. 3 is a vertical section of the dies, with the sole in position between the same to be molded; Fig. 4, plan view of one of the dies; Fig. 5, inverted plan of the other; Fig. 6, modification of tap-sole.

This invention relates to certain improvements in boots and shoes; and it consists in the combination, with the insole, the outsole, and the upper, of a tap-sole indented at the toe, so as to leave a raised edge to protect the upper.

In the drawing, A represents a shoe constructed according to my improved method, in which B is the upper, C the insole, and D the outsole. The tap-sole E, instead of being made plain and smooth, as usual, is indented at the toe with a depression, *a*, which leaves a raised edge, *b*, around the said toe, which, extending upward over the lower part of the upper, receives the wear, and protects the said upper.

In manufacturing my indented tap-soles the leather is first soaked in water, and placed between suitable dies, as shown in Fig. 3. A sufficient amount of power is then applied to produce the indentation and make it permanent, and, as soon as dry enough, the interior bulge *c* upon the bottom of the toe part of the sole is trimmed off, so as to leave a smooth outer surface for the outsole.

In manufacturing my tap-soles I may make them to extend to the shank, as shown in Fig. 6, for heavy soles; or I may arrange them for the toe alone, as shown in Fig. 2, when a light summer shoe is desired.

I am aware of the fact that welts have been attached to the outer edge of the sole, upon the same plane with the insole, and sewed to the latter, and also to the upper, and that the said welts are intended to protect the upper. I therefore disclaim such welt, which is expensive, and requires much stitching, and confine myself to a shoe constructed with the tap-sole or toe-piece in one piece, and indented as described, so as to leave a protecting-edge for the upper.

By means of my improved method shoes can be more rapidly and economically manufactured, and a better article produced, for the reason that the indented sole is in one piece, the top side of the depression presents a smooth surface, and there is no seam between the raised edge and the body of the sole.

Having thus described my invention, what I claim as new is—

1. In a boot or shoe, the combination, with the upper, the insole, and the outsole, of a tap-sole depressed without break or incision upon the upper surface, and trimmed upon the lower, so as leave a raised protecting-edge for the vamp, substantially as and for the purpose described.

2. As a new article of manufacture, a tap-sole depressed without break or incision upon the upper surface, and trimmed upon the lower, so as to leave a raised edge at the toe, substantially as and for the purpose described.

CHARLES F. HILL.

Witnesses:
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WM. DREDRIDGE.