

J. L. HATCH.

HEEL-STIFFENERS FOR BOOTS AND SHOES.

No. 180,340.

Patented July 25, 1876.

Fig. 1.

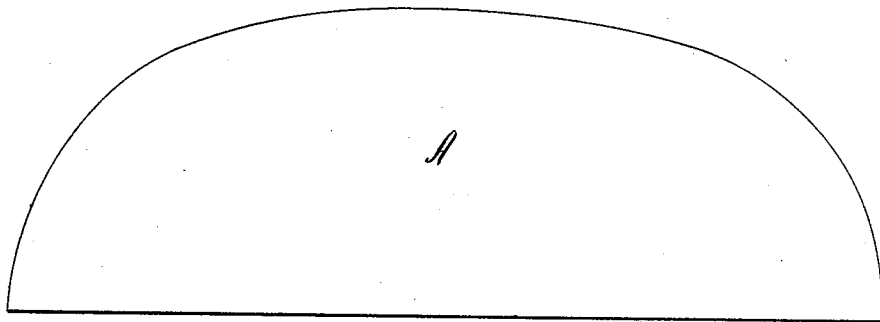


Fig. 5.

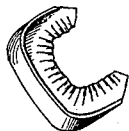


Fig. 4.



Fig. 2.

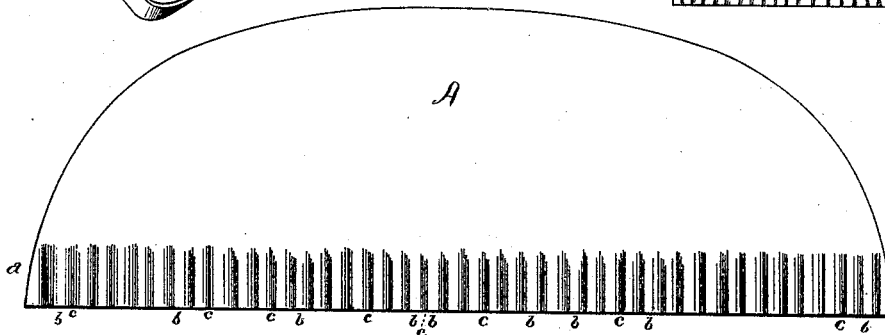
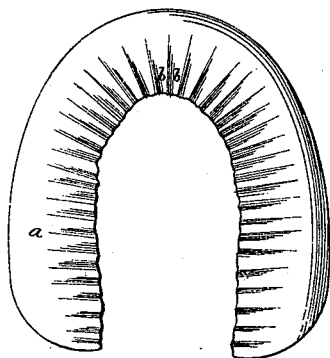


Fig. 3.



Witnesses.

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by
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UNITED STATES PATENT OFFICE.

JAMES L. HATCH, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN HEEL-STIFFENERS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **180,340**, dated July 25, 1876; application filed January 29, 1876.

To all whom it may concern:

Be it known that I, JAMES L. HATCH, of Rochester, in the county of Monroe and State of New York, have invented Improvements in Blanks for Heel-Stiffeners, Toe-Caps, and Box-Toes, of which the following is a specification:

This invention relates to blanks of leather, or leather-board, or leather and leather-board, for the manufacture of heel-stiffeners, toe-caps, or box-toes, is an improvement on United States Patents Nos. 129,338 and 146,252, and consists in a blank in which that edge to form the flange is corrugated before the edge is bent over or turned, the corrugations enabling the edge to be more easily turned, and reducing the liability of breaking the blank as the flange is being turned. The corrugations on the edge, being bent over to form the flange, greatly assist in forming the crimps or gathers evenly and uniformly, thereby adding to the smoothness of the flange. The flange-forming edge is preferably skived before it is corrugated.

Figure 1 is a view of a heel-stiffener blank of ordinary construction; Fig. 2, a blank for a heel-stiffener, with its edge corrugated; Fig. 3, an under side view of the blank Fig. 2, showing its crimped or gathered flange. Fig. 4 represents a blank for a toe-cap, or box-toe; and Fig. 5 the blank crimped or molded to toe-form.

The stiffener-blank A is formed preferably of leather and leather-board united by a water-proof or india-rubber cement, as described in a patent heretofore granted to me, but one or two pieces of leather or leather-board, or leather and leather-board, or other material commonly used for stiffeners or toe-caps, may be used instead.

The lower edges of these blanks (see Figs. 2 and 4) are corrugated, as shown at *a*, by pass-

ing their flange-forming edges between, preferably, a pair of toothed rollers, or a toothed and plain roller, a gage being used, if desired, to guide the edges of the blanks, and determine the length of the corrugations.

The corrugations form in the flange alternate elevations *b* and depressions *c*, and when the corrugated edge is bent over to form the flange—any well-known crimping or flange-turning devices being employed—the elevated portions *b* approach and abut, while the depressed portions *c* have a tendency to move in an opposite direction, forming a substantially even and uniformly crimped or gathered flange. A smooth and evenly-formed flange saves much time in the process of lasting. The corrugations made along the edge of the blank permit the gathers to be formed closer and more compactly than were the corrugations omitted, and the flange may therefore be turned into a smaller curve than heretofore, and when formed will be better retained in position.

I claim—

1. A blank for the manufacture of heel-stiffeners, toe-caps, or box-toes, corrugated at its lower edge prior to being bent to form the flange, substantially as described.

2. In the process of manufacturing heel-stiffeners, box-toes, and shoe-tips, corrugating the lower edge of the blank, then bending the blank into heel or toe form, and turning the corrugated edge to form the flange, substantially as described.

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

JAMES L. HATCH.

Witnesses:

JAMES T. STEWART,
ANDREW J. HATCH.