C. H. COLBURN.

Cutting-in Boot-Fronts.

No. 212,357. Patented Feb. 18, 1879.

Fig. 1.

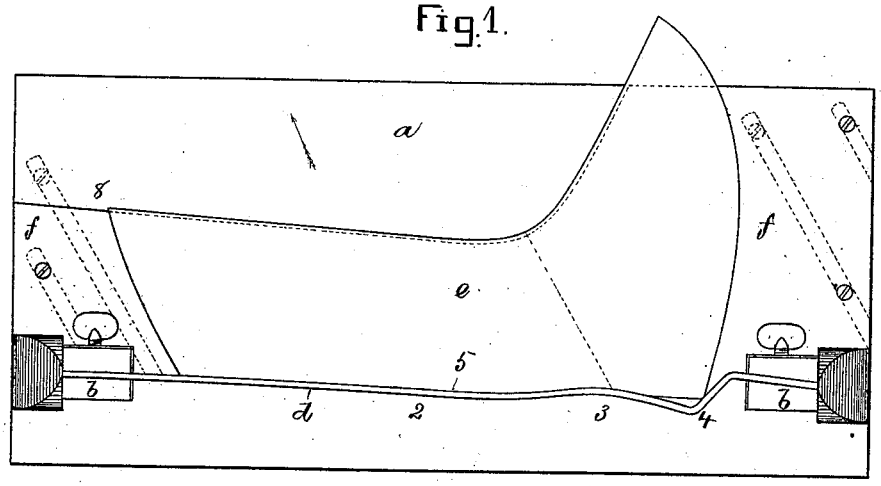
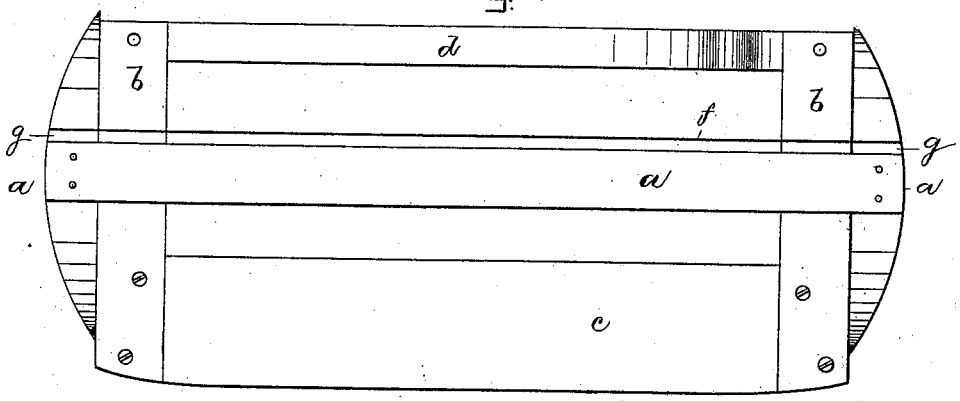


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES H. COLBURN, OF MILFORD, MASSACHUSETTS.

IMPROVEMENT IN CUTTING-IN BOOT-FRONTS.

Specification forming part of Letters Patent No. **212,357**, dated February 18, 1879; application filed January 6, 1879.

To all whom it may concern:

Be it known that I, CHARLES H. COLBURN, of Milford, county of Worcester, State of Massachusetts, have invented an Improvement in Cutting-in Boot-Fronts, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to a new method of cutting-in boot-fronts, and to mechanism for practicing said new method.

In the manufacture of boots the fronts are first cut out in accordance with a pattern, and then stitched and crimped over a form, all of which is well understood. While being crimped the leather stretches unevenly, and before the front is sewed to the back part of the boot the edges of the front are trimmed or cut-in to even them. In this last operation it is usual to place the outer crimped front edge of the leg and vamp against guide-pins held or located in a line conforming with the front of the leg and foot, where the edges of the back part are cut to final form; or else a metal or board pattern, shaped like the crimped front which it is desired to produce, is laid upon the crimped front so that the lines in each for the front of the leg and vamp will exactly accord along the edges of the crimped front and pattern, after which the rear edges of the crimped front piece are cut to accord with the pattern.

In both these plans it will be observed that the boot-front is gaged and cut to shape from a measuring-point which is the outer face of the crimped edge. Now, in consequence of variations in the thickness of the leather on and along the extreme front of the crimped front, which is the line on which the crimp falls, it frequently happens that one boot fits more snugly or tighter to the foot than the other.

The chief object of my invention is to overcome this variation in size of boots or shoes, and secure exactly the same inside measurement or fit in all boots cut to be and intended to be of the same size. I obviate this unevenness as to size by gaging from the inner side of the crimped center of the boot or shoe rather than from the outer edge or fold, as heretofore commonly done; and it is therefore obvious that the rear edges of the front of the leg will always be cut or trimmed uniformly from that face or portion of the leather of the boot or shoe front which bears directly against the instep or top of the foot.

Figure 1 represents a top view of a crimped boot-front applied to my improved inside gage to have the rear side of the front piece trimmed or cut into shape; and Fig. 2, a side elevation thereof, as if viewing Fig. 1 in the direction of the arrow.

The machine herein shown to exemplify my invention is composed of a bed-plate, *a*, supported in any usual way, and at the proper height. In slots in this bed-plate, or it may be in any other part of the frame-work of the machine, I have arranged cutter-carrying arms *b b*, which rise from a reciprocating cross-head, *c*, which may be connected with and be made to rise and fall by the action of a treadle or cam mechanism not necessary to be herein shown and described. At the upper ends of these arms *b b*, and preferably removably or adjustably attached thereto by means of set-screws or other proper and usual holding devices, is attached a cutter or blade, *d*, having a long straight cutting-edge, 2, an inwardly-curved portion, 3, and an angular portion, 4, (see Fig. 1,) to cut and trim to usual shape the inner edge, 5, of the boot-front, *e*, which is held upon, supported by, and acted upon at the inner face of the said front, along the line upon which it is crimped, by the correspondingly-shaped front edge of the internal gage, made as a plate, *f*, supported upon blocks *g* on the surface of the bed *a*, the blocks elevating the gage-plate above the surface of the said bed far enough to permit the crimped boot or shoe to be placed over it as it was placed over the form upon which the front was crimped into shape.

It will be obvious that the front edge, 8, of the gage, (shown partly in dotted lines, Fig. 1,) which rests against the inner face of the material constituting each boot, and along its crimped line, will, because of gaging from the inside of the crimped front *e*, always insure, when the front is trimmed or cut-in by the blade *d*, both of exactly the same size inside measurement rather than of same size outside measurement.

The gage-plate *f* may be slotted, as shown in dotted lines, and be arranged to work with

headed screws or studs, so as to permit the plate to be adjusted in an angular direction toward or from the blade, so as to permit the same blade to cut-in boots of more than one size.

This invention may be practiced to advantage in cutting to ultimate shape of some classes of crimped shoes, and so, also, the gage *f* may be used as described with a hand-knife. One descent or stroke of the cutter or blade *d* cuts the entire rear edge of the front.

I claim—

1. That improvement in the art or method of cutting or trimming the rear edges of crimped boots or shoes to insure like inside measurement in each pair of boots or shoes which consists in supporting the crimped portion of the front when being trimmed or cut-in by means of a gage, which bears upon the material of the crimped front at the inner side of its crimped line, substantially as herein described.

2. In a machine for trimming or cutting-in the fronts of boots and shoes, an elevated gage adapted to receive about it a crimped front and hold it while being trimmed along its rear edges, substantially as described.

3. In a machine for trimming or cutting-in the fronts of crimped boots and shoes, an elevated gage shaped along its gaging-edge to conform with the shape of the crimped front which is placed about it, combined with a cutter or blade, substantially as described, to cut the back edges of the boot or shoe front to shape it at a single stroke, substantially as described.

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

CHARLES H. COLBURN.

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