

E. Holmes,
Bevelling Edges of Boot Forms,
No. 1,716. Patented Aug. 12, 1840.

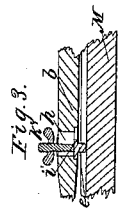


Fig. 1.

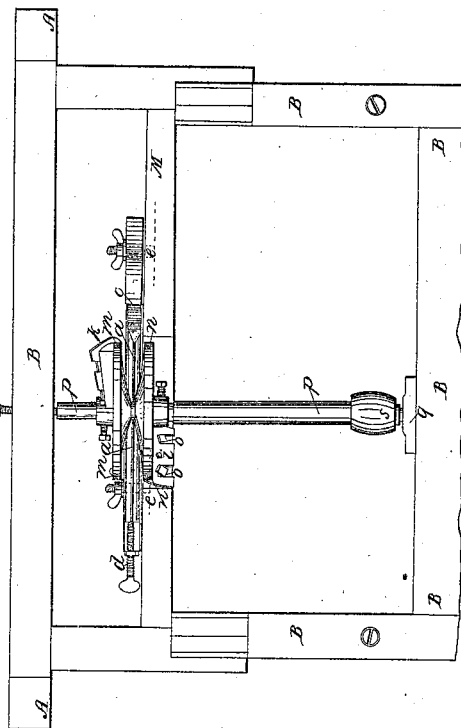
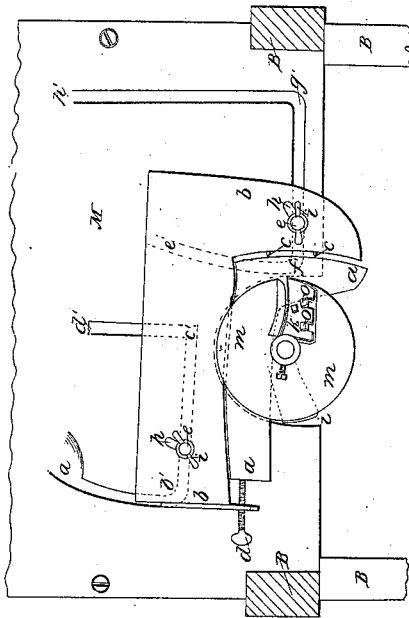


Fig. 2.



UNITED STATES PATENT OFFICE.

ELIJAH HOLMES, OF STOUGHTON, MASSACHUSETTS.

MACHINE FOR BEVELING BOOT-FORMS.

Specification of Letters Patent No. 1,716, dated August 12, 1840.

To all whom it may concern:

Be it known that I, ELIJAH HOLMES, of Stoughton, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Machinery for Forming the Beveled Edges of Boot-Forms.

These improvements, the principles thereof, the manner in which I have contemplated the application of said principles by which it may be distinguished from other inventions, together with such parts or combinations I claim as my invention and hold to be original and new I have herein set forth and described, which description taken in connection with the accompanying drawings herein referred to composes my specification.

The manner in which the common boot form is shaped is understood by all persons conversant with the same, but in order that the object of my machinery may be fully comprehended by others, it must be borne in mind, that the common "boot form" is a piece of board on which the leather of the front of a boot is strained and shaped, so as to give the foot its proper position or angle with respect to the leg, previous to applying the same to the last; this has generally been done by the hand and tool of the workman, and the peculiar office of my invention is to accomplish the same by my improvements, with a great saving of time, labor and expense, and in as perfect if not a more perfect and regular manner than that heretofore practiced.

Figure 1, is an end elevation of my machinery. Fig. 2, being a plan of the same with the beam A A removed, or a horizontal section in the line A A.

The framework B B B B is sufficiently represented in the two figures to show the manner in which the operative parts of the machinery are supported.

A perpendicular shaft *p p* has a pulley *s* firmly attached thereto as seen in Fig. 1, to which pulley a band from any driving power will communicate a rotary motion also to said shaft and likewise to the parts connected to the same. Two circular frames *m m n n* are properly arranged on the vertical shaft *p p*, the said shaft being supported in any manner at its top, while the lower end rests and revolves in the step *q* attached to the cross beam B B. Planing irons *k l* Figs. 1 and 2 are arranged respectively in the circular planes or frames

m m n n. The frames *m m n n* are beveled or have a conical shape on the inner faces as shown in Fig. 1, and the cutting edges of the planing irons should be adapted to the inclination or bevel of the upper and lower faces in opposition; by means of suitable slots, clamping nuts and screws, shown at *o o* &c. the said screws serving at the same time to confine the cutters to the frames *m m*, *n n* or the plane irons may be attached in any other proper manner so as to be readily adjusted to any required position.

a, a, Figs. 1 and 2 is the boot form in its rough state the inner edges of which are to be beveled by my improved machinery. This form is placed in a movable frame *b b* Fig. 2. This frame in shape is similar to the back and lower part of the foot of the form. When the form *a a* is placed in the frame *b b*, it is secured by the clamping screw *d* at the head of the same which presses it against the short points or teeth *c, c* at the foot of the frame. Their joint operation to produce the intended effect will be readily understood without further explanation. The frame *b b* has two guides *e, e*, projecting downward as represented in Fig. 1, and entering and working in the grooves *a', b', c', d', e', f', g', h'* shown in Fig. 2. The guides *e, e* may be adjusted to different positions in slots *h h* Fig. 2, by means of the clamping nuts and screws formed thereon, as shown at *i i* Figs. 1 and 2, and more particularly in Fig. 3, where it will be perceived that the projection or guide *e* has a shoulder *i'* against which the nut *k* operates when screwed down, so as to confine the guide or projection *e* in any position in the slot *h*; the lower part of the said slot being formed or cut larger than the upper so as to receive the shoulder, whose lower side is thus brought on a level or coincides with the under surface of the frame *b b*. The object of the slots *h h* is to enable us to slightly change the position of the form *a a* with respect to the cutters, should the same at any time be deemed necessary.

From the machinery which has been above described, it will readily be seen, that when the form *a a*, is placed in the frame *b b*, and the whole is carried forward, toward the planing machinery, that the upper part of the edge, or toe of the foot of the form, will first come in contact with the cutters

and be beveled on each side, or formed of a wedge shape which shape will correspond or fit into the opening formed by and between the frames *m m*, *n n*. On pushing the
 5 form forward, the cutters will reduce the whole of the upper edge of the foot, from the toe to the instep, and then on moving the frame *b b* laterally or so as to cause the guides *e, e* to travel in the portions *b' c'*,
 10 *f', g'*, of the grooves, the front of the leg of the form will be similarly reduced or beveled. These operations being completed the frame *b b* is withdrawn or moved back, the guides *e, e* passing through the portions
 15 *c', d', g', h'* of the grooves.

The position of the grinding grooves *a', b', c', d', e', f', g', h'* may be easily obtained by passing the frame *b b* (in which a correct pattern of the intended form is
 20 placed and secured by the screw *d*), with the guides *e, e* attached thereto in the several directions necessary to give the edges of the form, their proper beveling shape, or so that the beveled edge of the pattern in
 25 the frame may be always pushed up, or held against the cutters, or between the plates or frames *m m*, *n n* during the mo-

tion of the frame *b b* as above described, and the lines described by the guides *e, e* or points or pencils substituted therefor, 30 will denote the proper position on the board *M* of the grooves.

Having thus described my machinery, I shall claim—

Reducing or beveling the edges of boot 35 forms in the manner herein above explained by revolving cutters, in combination with a frame for holding the boot form, the said frames having projecting pins or guides traveling in grooves, for the
 40 purpose of presenting the form in a proper manner to the action of the cutters, the whole being arranged and operating together substantially in the manner herein above set forth. 45

In testimony that the above is a true description of my said invention and improvement I have hereto set my signature this twenty sixth day of June in the year of our Lord eighteen hundred and forty.

ELIJAH HOLMES.

Witnesses:

R. H. EDDY,
 EZRA LINCOLN, Jr.