

W. E. FORSTER & W. C. TOLLES.

BOOT AND SHOE SOLE-TRIMMING MACHINE.

No. 190,482.

Patented May 8, 1877.

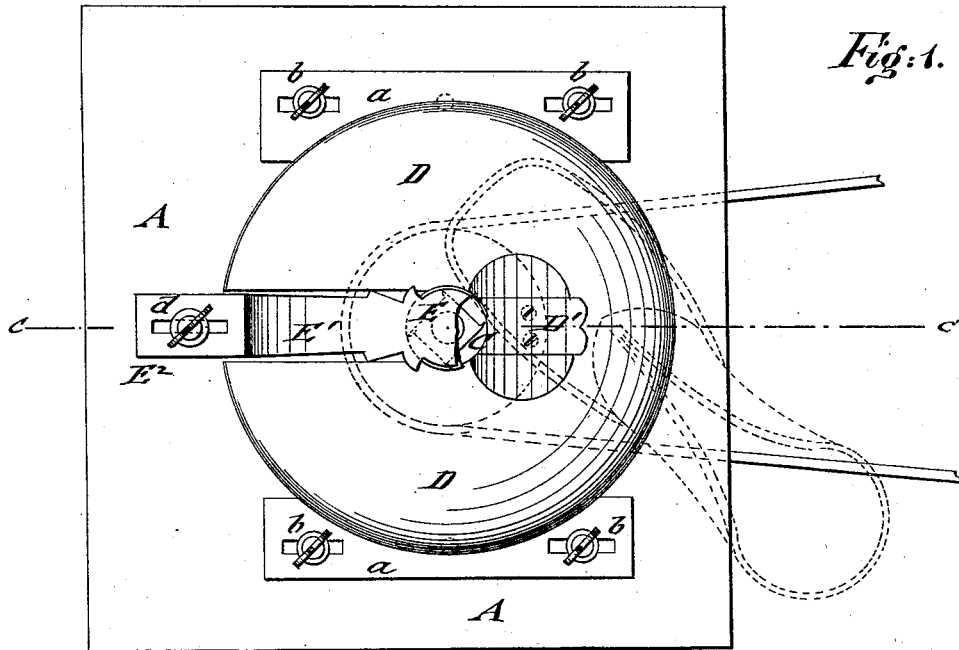


Fig: 1.

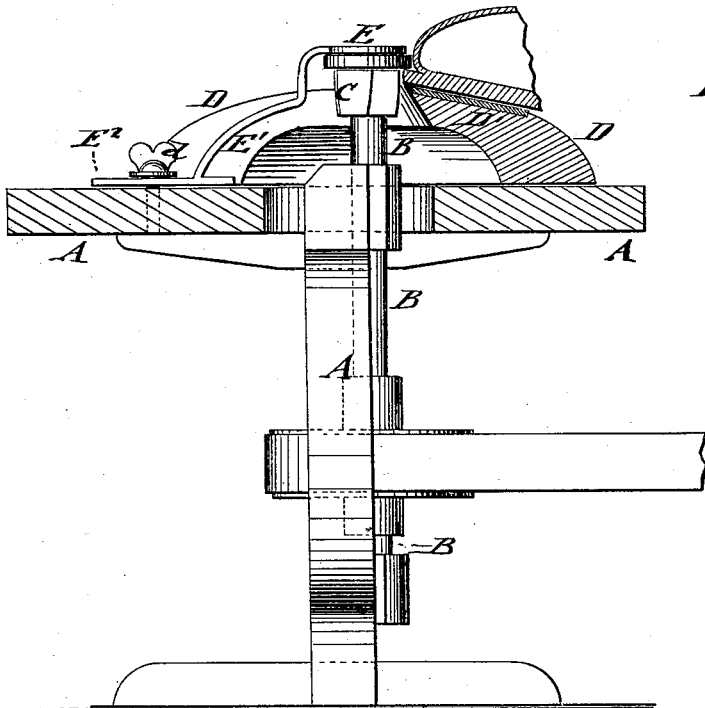


Fig: 2.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM E. FORSTER AND WILLARD C. TOLLES, OF NASHUA, N. H.

## IMPROVEMENT IN BOOT AND SHOE SOLE TRIMMING MACHINES.

Specification forming part of Letters Patent No. 190,482, dated May 8, 1877; application filed April 2, 1877.

*To all whom it may concern:*

Be it known that we, WILLIAM E. FORSTER and WILLARD C. TOLLES, of Nashua, in the county of Hillsborough and State of New Hampshire, have invented a new and Improved Sole Trimming Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, and Fig. 2 a vertical central section, of our improved machine for trimming the soles of boots and shoes on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention is designed for the purpose of trimming the soles and heels of boots and shoes in rapid, uniform, and effective manner by a simple and labor-saving machine; and the invention consists of a revolving cutter, in combination with a feed-table and adjustable gage.

In the drawing, A represents the supporting-frame of our improved sole and heel trimming machine, and B the vertical cutter-shaft, that turns in a bottom step and suitable top bearings of the frame A, and carries at the upper end the sole-trimming knife C, which revolves with great rapidity by suitable belt-and-pulley connection with a power-shaft. A cast-metal table, D, of convex shape, is secured to the top part of frame A by means of slotted side plates *a* and tightening clamp-screws *b*, the table D being readily taken off and replaced by one of less height and convexity, according as soles or heels have to be trimmed. The cutting-knife is keyed to the shaft in such a manner as to be readily taken off for sharpening, the same projecting about the thickness of the sole or heel above the table on which the boot or shoe rests when being fed against the revolving knife.

The table D is provided at the front part with a straight or concave throat-plate, D', on which the sole or heel of the shoe rests when being exposed to the action of the knife, the same having either straight or convex cutting-edges, according as a straight or concave edge of the soles and heels is desired.

The rear part of table D is recessed for the arm E<sup>1</sup> of the gage E, which is rigidly held in

position immediately above the cutter, and adjusted to project the proper distance beyond the same, so as to regulate the degree of trimming by a slotted horizontal base-plate, E<sup>2</sup>, and clamp-screw *d*. The shoe is run along the gage, which bears against the upper of the shoe, as shown in Fig. 2, the heel or sole being turned on the throat-plate and trimmed off by the action of the cutter.

In place of the gage a gage-plate or former that is secured by pins to the sole, and made to correspond in shape therewith, may be used, as shown in dotted lines in Fig. 1; but in most cases the gage above the cutter is preferable, as a steadier and more uniform trimming of the soles and heels is obtained.

The machine accomplishes the trimming of the soles and heels at a considerable saving of time and labor over the present method of trimming by hand, and is, moreover, of simple, durable, and not very expensive construction.

The convex table is for the purpose of allowing the shank of sole to come within range of the cutter, the convexity of table being made to correspond with the concavity of shank. Without the convexity of table the concavity of shank could not be reached by the cutter in order to trim it.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A machine for trimming the soles and heels of boots and shoes, consisting essentially of a convex table, horizontally-revolving cutter, and suitable gage device, substantially in the manner and for the purpose set forth.

2. The convex table D, having straight or concaved throat or rest plate D', substantially as specified.

3. The combination of a horizontally-revolving cutter with a detachable and adjustable convex rest-table, substantially in the manner and for the purpose set forth.

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Witnesses:

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