C. J. ADDY.

Machine for Trimming the Edges of Boot and Shoe Soles.

No. 201,977. Patented April 2, 1878.

Fig. 1.

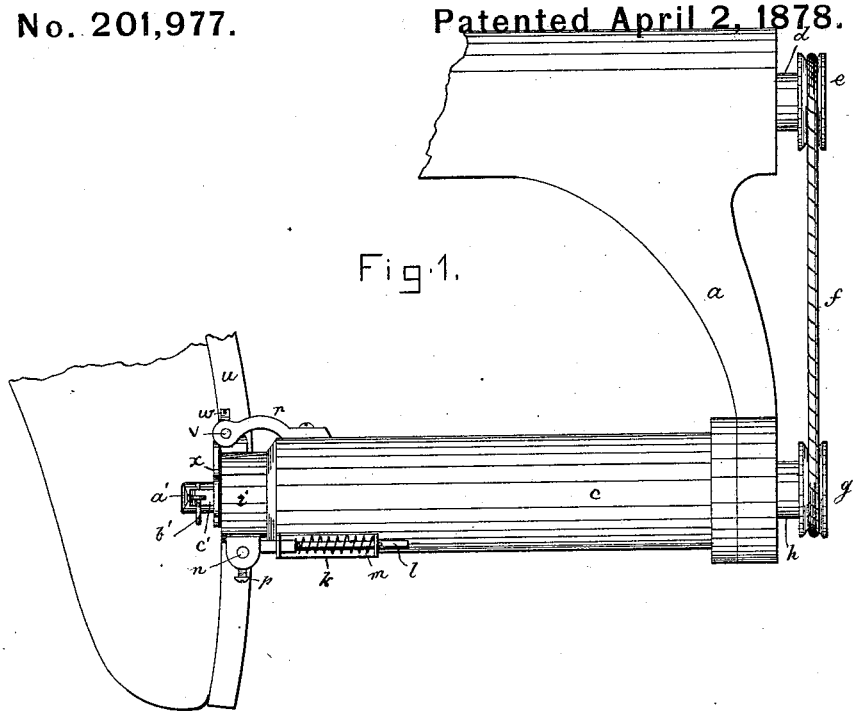

Fig. 2.

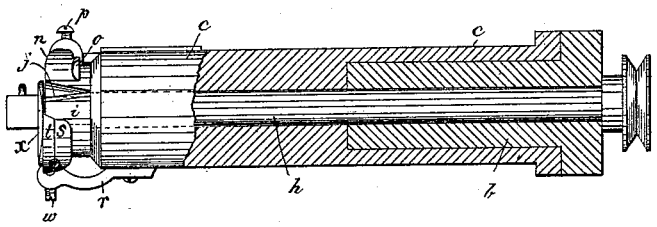

Fig. 3.

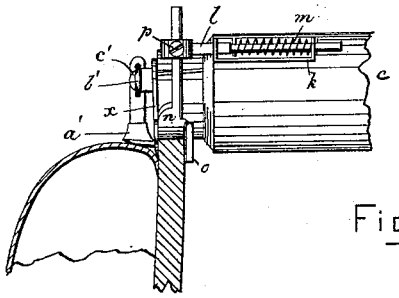

Fig. 4.

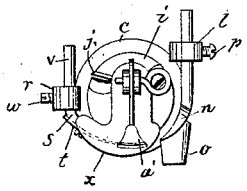

Fig. 5.

Witnesses.

W. Z. Pratt.

L. A. Baxter

Inventor.

Charles J. Addy

by Crosby & Gregory Attys

UNITED STATES PATENT OFFICE.

CHARLES J. ADDY, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS RIGHT TO ESSEX S. ABBOTT, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR TRIMMING THE EDGES OF BOOT AND SHOE SOLES.

Specification forming part of Letters Patent No. **201,977**, dated April 2, 1878; application filed February 12, 1878.

To all whom it may concern:

Be it known that I, CHARLES J. ADDY, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Mechanism for Trimming Edges of Soles, of which the following is a specification:

This invention relates to mechanism for trimming the edges of soles.

A patent granted to myself and E. S. Abbott, No. 197,306, to which reference may be had, shows a reciprocating cutting-knife within a handle free to be oscillated by hand, such handle being supported upon a "head-piece" or frame pivoted upon a "forked piece," so connected with its holding devices as to be capable of being oscillated or rotated, of moving backward or forward horizontally, or swinging horizontally to the right or left.

In this my present invention the handle to be grasped by the operator will be supported substantially as provided for in such invention, the object being to so support the said handle that the operator can place the trimming device in proper position with relation to any part of the sole-edge, whatever may be its curvature, while the jack or shoe has only a motion of rotation. This, it will be seen, necessitates that the handle be capable of a universal movement—that is, up and down, backward and forward, and laterally to and from the shoe, and in any directions between such positions.

This present machine is shown as provided with a rotating edge-trimming knife, instead of with a vibrating trimming-knife. It also has an edge-cutting blade, and a foot to bear upon the trimmed edge of the sole, a gage to bear upon the sole in advance of the edge-trimming knife, a gage to bear upon the upper, and a rand-gage to fit between the upper and sole.

Figure 1 represents, in top view, sufficient of an edge-trimming device to illustrate my invention; Fig. 2, an under-side view of Fig. 1, showing the trimming-knife, foot, edge-cutting blade, and gages; Fig. 3, a side elevation; Fig. 4, an end view thereof, and Fig. 5 a detail of the edge-cutting blade.

The frame *a*, from which the bearing *b* for the handle *c* projects, is intended to represent a portion like that designated in the hereinbefore-mentioned patent as the "head-piece," and it will be capable of having imparted to it a universal motion, as therein provided for, and as hereinbefore mentioned. This frame *a* may be supported by a ball-joint at the end of a second arm, ball-jointed to its movable support.

The rotating shaft *d* and pulley *e*, driven in any suitable way, or as described in such patent, are connected by belt *f* with pulley *g* on shaft *h*, which at its forward end, beyond the handle *c*, carries the rotating trimming-knife *i*, provided with one or more cutting-blades, *j*.

The handle *c*, which may be oscillated freely about the bearing *b*, has a bearing-block, *k*, to receive a rod, *l*, and spring *m*, which supports the adjustable edge-gage *n*, adapted to bear upon the edge of the sole in advance of the action of the trimming-knife, the edge-gage being also provided with a finger, *o*, to bear against the bottom of the sole. The spring *m* permits this gage to yield laterally, and by means of the screw *p* the gage can be moved more or less distant from the path of rotation of the edge of the trimming-knife.

A bracket, *r*, attached at the opposite portion of the handle *c*, carries a foot, *s*, which bears upon the trimmed edge of the sole *u* at the rear of the trimming-knife. The shank *v* of this foot, held in the bracket *r*, is made adjustable by the screw *w*.

Next this foot is an edge-cutting blade, *t*, adapted to trim off the corner or edge of the sole next the upper. The free end of this blade has a lug or projection, (see Fig. 5,) which enters a recess in the side of the rand-guide *x*, which, in this instance of my invention, is supported by the lug *v*, and rests in the crease between the sole and upper.

The upper-gage *a'*, adapted to bear, when desired, against the upper, as shown in Fig. 3, is adjustably connected by the pin *b'* with the ear *c'*, projecting from the rand-guide. When the upper-gage is not to be used, it may be elevated from contact with the upper.

These different gages, and edge-cutting blade and foot, may be used, separately or to-

gether, in connection with a reciprocating cutting-knife, such as described in the patent referred to.

These devices may, with slight modification, be used to trim heels.

When the upper-gage *a'* is employed, the gage *n* is not used, and vice versa.

I claim—

1. An edge-trimming knife to trim the sole, and a foot to bear upon the trimmed edge of the sole, combined with a blade to remove the edge of the sole next the upper.

2. The oscillating handle, supported and made movable, as described, in combination with a trimming-knife for the edge of the sole, and a separate blade to cut away the corner of the trimmed edge of the sole next the upper, substantially as described.

3. An edge-trimming knife and oscillating handle, supported as described, and a blade to cut the trimmed edge of the sole, combined with a rand-gage, to operate substantially as described.

4. The oscillating handle, supported and made movable substantially as described, in combination with the rand-gage, foot, and blade to cut the trimmed edge of the sole.

5. The oscillating handle, adapted to be moved universally, as described, in combination with an edge-trimming knife, and a gage to bear upon the untrimmed sole-edge in advance of the cutter, the gage being carried by the handle, substantially as described.

6. The oscillating handle, supported and adapted to be moved universally, as described, in combination with a trimming-knife to trim the edge of the sole, a rand-gage, and a gage to bear against the upper, substantially as described.

7. The gage to bear against the upper and the rand-gage, in combination with the foot and blade to cut away the trimmed edge of the sole, substantially as described.

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

CHARLES J. ADDY.

Witnesses:

G. W. GREGORY,

L. A. BAXTER.