

(No Model.)

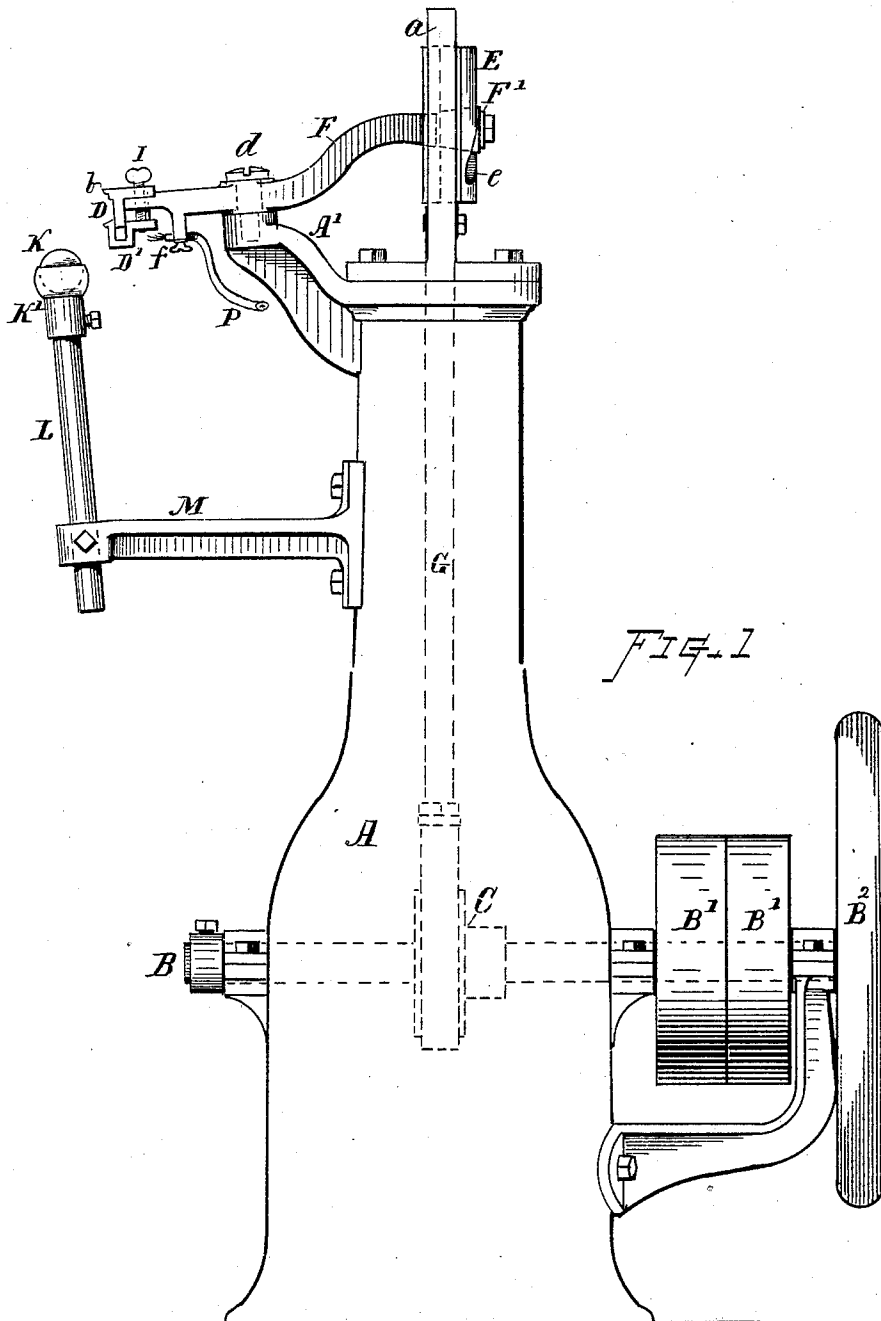
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W. R. ALBERTSON.

BURNISHING MACHINE FOR BOOTS AND SHOES.

No. 310,166.

Patented Jan. 6, 1885.



WITNESSES.

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Geo. M. Rice 2^d

INVENTOR.

William R. Albertson
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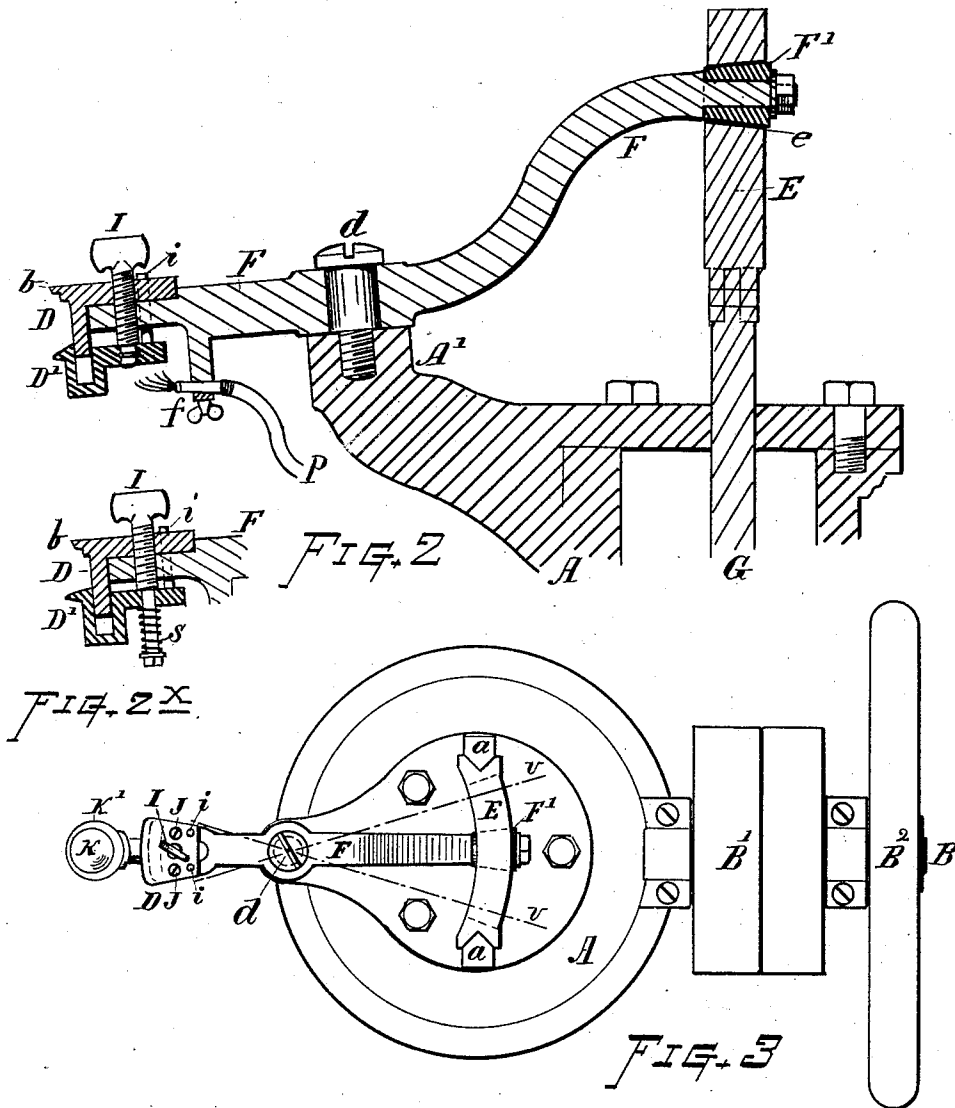
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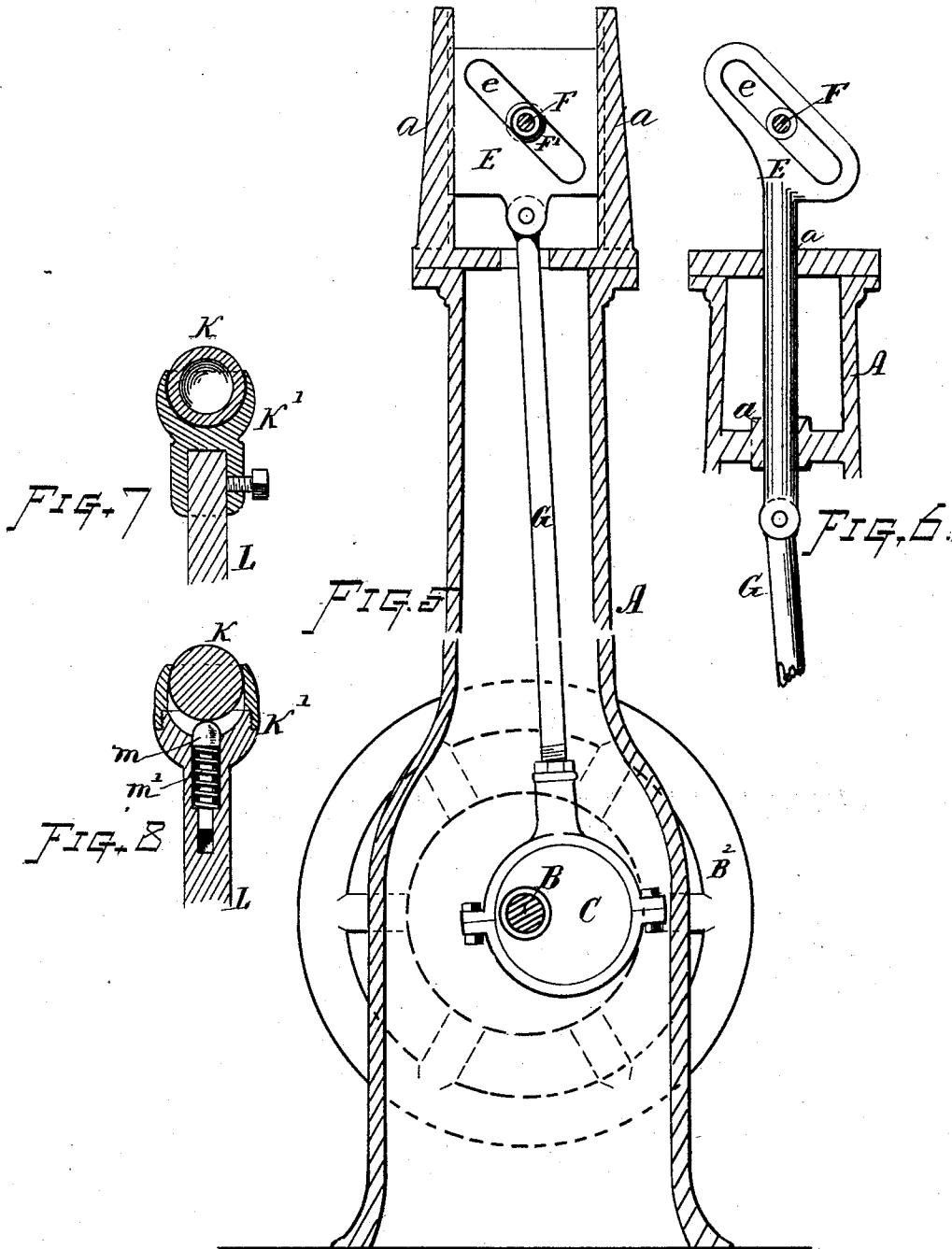
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UNITED STATES PATENT OFFICE.

WILLIAM R. ALBERTSON, OF WORCESTER, MASSACHUSETTS.

BURNISHING-MACHINE FOR BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 310,166, dated January 6, 1885.

Application filed July 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. ALBERTSON, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Boot and Shoe Edge and Heel Burnishing Machines; and I declare the following to be a description of my said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

The object of my present invention is to provide a simple and efficient machine for the purpose above named, which can be manufactured at comparatively small expense and operated with ease and facility; to provide means for the adjustment of the burnishing-tool to different thicknesses of edge; to provide a simple, efficient, and convenient rest or guide for supporting the boot or shoe while burnishing its edges. These objects I attain by mechanism the nature, construction, and operation of which is illustrated in the drawings, and explained in the following description, the particular subject-matter claimed being hereinafter definitely specified.

In the drawings, Figure 1 is a side view of my improved burnishing-machine. Fig. 2 is a vertical section through the burnishing-tool and its operating-arm, drawn to somewhat larger scale, and Fig. 2^a shows a modification of the adjustable gage devices on the burnishing-tool in similar section. Fig. 3 is a plan view of the machine. Fig. 4 shows a section and bottom view of a heel-burnisher, to be interchanged with the edge-burnisher, when desired. Fig. 5 is a vertical section through the standard of the machine in lateral direction. Fig. 6 shows a modification of the devices for vibrating the tool-carrying lever. Fig. 7 is a section of the yielding ball-rest for supporting the boot or shoe in front of the burnishing-tool, and Fig. 8 is a modification of the yielding ball-rest or supporter.

In the references to the drawings, A denotes the frame or standard, upon which the operating parts are supported.

B indicates the operating-shaft, mounted in bearings on the lower part of the frame A, and provided with tight and loose pulleys B'

for the driving-belt, and also a fly-wheel, B². A crank or eccentric, C, is arranged on the shaft B, within the standard A, for actuating the burnishing mechanism.

D indicates the burnishing-tool, which is carried by an arm or lever, F, fulcrumed or pivoted, as at *d*, upon a projecting portion of the frame, or a suitable bracket, A', attached thereto. Said lever is arranged to be operated with a laterally swinging or oscillative action, (see dotted lines *v*, Fig. 3,) its rear end being engaged by suitable actuating devices in connection with the crank or eccentric C on the operating-shaft B.

E denotes a head or device mounted in suitable guides, *a'a*, on the frame A, and connected with the eccentric C by the rod G, so as to have a vertically-reciprocative action as the eccentric C revolves. Said head is provided with a diagonal slot or guide, *e*, that engages the rear end of the lever F or the friction-wheel F', mounted thereon, and imparts the required lateral movement to the arm F and burnisher-tool D. The front of the head E is curved to correspond with the curve of motion of the arm F, so that the roll F' or end of the lever will travel regularly in the slot *e*.

The burnishing-tool D is made with a flat part, which is secured to the front end of the arm F in the manner indicated. Said tool is provided with an adjustable gage, D', as shown, which can be set nearer to or farther from the beading-edge *b*, so as to correspond to the different thicknesses of soles.

I indicates a thumb-screw for adjusting the gage, and *i i* indicate dowel-pins for guiding and steadying the gage D'; and J J indicate the screws for securing the tool to the operating-arm F.

The burnishing-tool D is designed for use on fore-part edges; but said tool can be readily removed from the arm F and replaced by a heel-burnishing tool, such as shown in Fig. 4, when desired. In this latter tool the working-face is made corrugated, as indicated at *w*.

In lieu of making the gage D' to move up and down the face of the tool D by a screw-thread, said gage might be fitted with a spring, to press it upward toward the bead *b*, and the adjustment be effected by forcing the gage D' down when bringing the edge of the shoe-sole against the face of the tool, the flange of

the gage D' resting against the under surface of the sole, and thus keeping the edge up to the bead *b* in proper manner. If desired, the spring and screw may be combined, as in Fig. 2^x.

For supporting the boot or shoe I employ a yielding ball or sphere, K, formed of rubber or other suitable material, and loosely confined in a suitable socket, K', mounted at the end of an adjustable rod, L, and supported at the end of an arm, M, fixed on the front of the standard, as illustrated. The ball K may be arranged as shown in Fig. 7, a hollow (or, if preferred, solid) elastic rubber ball being confined in a metal socket, so that the top of the ball projects in position, to serve as a yielding rest for the sole of the boot or shoe while the edge is held up to the burnishing-tool. The elasticity or yielding action of the ball permits the rest to conform to the irregularities of the sole, while the rolling of the ball in its socket permits easy movement of the boot or shoe to the right or left, to carry its edge along the front of the vibrating burnisher D, which rubs the edge with a rapid back-and-forth movement.

In Fig. 8 I have shown a modified construction of the rest in which the ball is upheld by a stud, *m*, and spring *m'*, set in the bottom of the socket and pressing upward beneath the center of the ball, the socket being made so as to allow the ball to be depressed within it.

The lever F may be provided with a downward projection and clamp, as at *f*, for retaining the gas-burner by which to heat the tool D, if desired, the burner being connected to the gas main or supply by a flexible pipe, as indicated at *p*.

When operating the machine, the attendant holds the shoe in his hands and presses the edge of the sole against the face of the tool D, in the meantime resting the bottom of the sole upon the ball K, which assists to steady and guide the work as the boot or shoe is turned to bring the different parts of the edge up to the burnisher.

What I claim as of my invention, and desire to secure by Letters Patent, is—

1. The burnishing-tool D, provided with the beading or projection *b*, and the adjustable gage D', in combination with a laterally-swinging carrier-arm or vibrating lever, F, substantially as and for the purpose set forth.

2. The combination, with the burnishing-tool adapted for lateral vibrating action, and

having the beading-edge *b*, of the adjustable gage D', the adjusting-screw I, and guiding-dowels *i*, as and for the purpose set forth.

3. In an edge-burnishing machine, the combination, with the burnishing-tool, of an arm or lever, as F, centrally fulcrumed, as at *d*, for laterally-swinging action, and having said burnishing-tool detachably connected to its forward end, while its rear end is connected with mechanism for imparting lateral motion thereto, substantially as set forth.

4. The combination of the centrally-pivoted lever, F, carrying the burnishing-tool attached to its forward arm, an actuating device having operating engagement with the rear arm of said lever, the operating-shaft provided with crank or eccentric C, and the reciprocating rod G, connecting the parts for operation, substantially as and for the purpose set forth.

5. In a burnishing-machine, the guiding-rest provided with a yielding ball or sphere loosely confined within a supporting-socket, substantially as set forth.

6. The combination, in a burnishing-machine, of a laterally-swinging arm carrying a burnishing-tool, and stationary sole-supporting rest having a yielding rotating ball or elastic sphere for sustaining the boot or shoe while its edge is held to the burnishing-tool, substantially as set forth.

7. The combination, as described, of the standard A, having the forward projection, A', the operating-shaft B, having pulleys B', and crank or eccentric C, mounted in the lower part of said standard, the swinging arm F, pivoted on said forward projection, as at *d*, the diagonally-slotted head E, the connecting-rod G, the burnishing-tool D, and the shoe-supporting arm M, with adjustable rod L and yielding ball-rest K, for the purposes set forth.

8. In a burnishing-machine for boots and shoes, the combination, with a laterally-swinging arm or vibrating lever having a tool-supporting seat at its forward end, of the burnishing-tools provided with a backward projection or ear matching said seat, and attaching devices, as shown, whereby the heel and fore-part burnishers are adapted for interchanging, substantially as set forth.

Witness my hand this 5th day of July, A. D. 1884.

WILLIAM R. ALBERTSON.

Witnesses:

CHAS. H. BURLEIGH,
S. R. BARTON.