

(No Model.)

2 Sheets—Sheet 1.

M. DUDLEY.
BURNISHING MACHINE.

No. 263,129.

Patented Aug. 22, 1882.

Fig. 1.

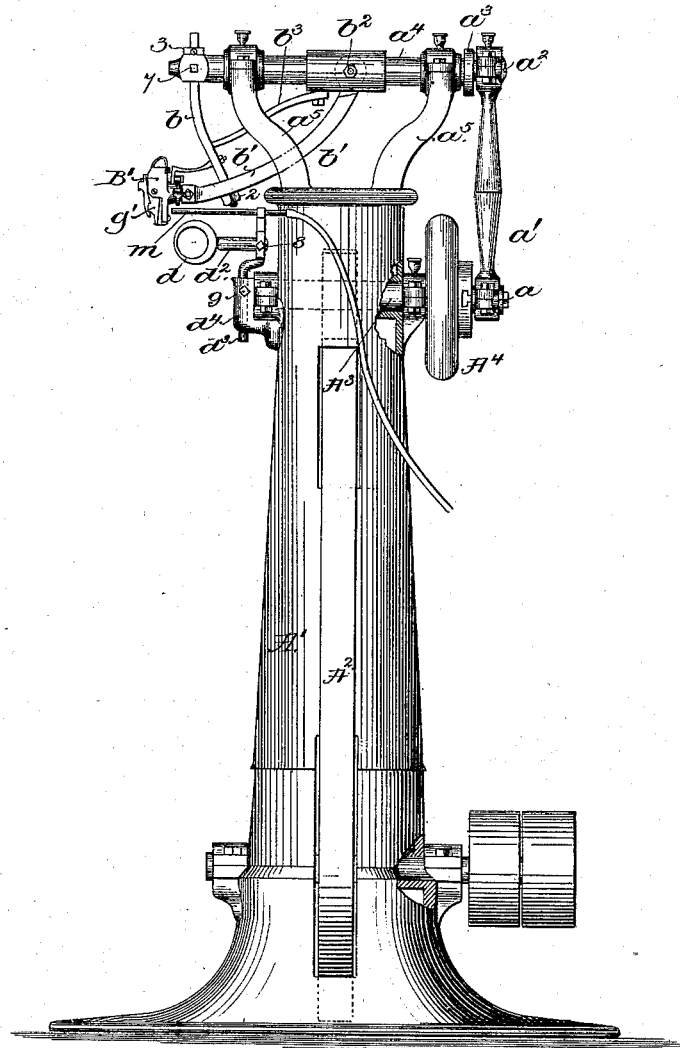
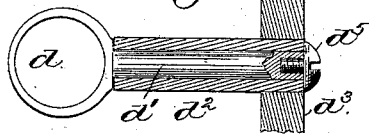


Fig. 2.



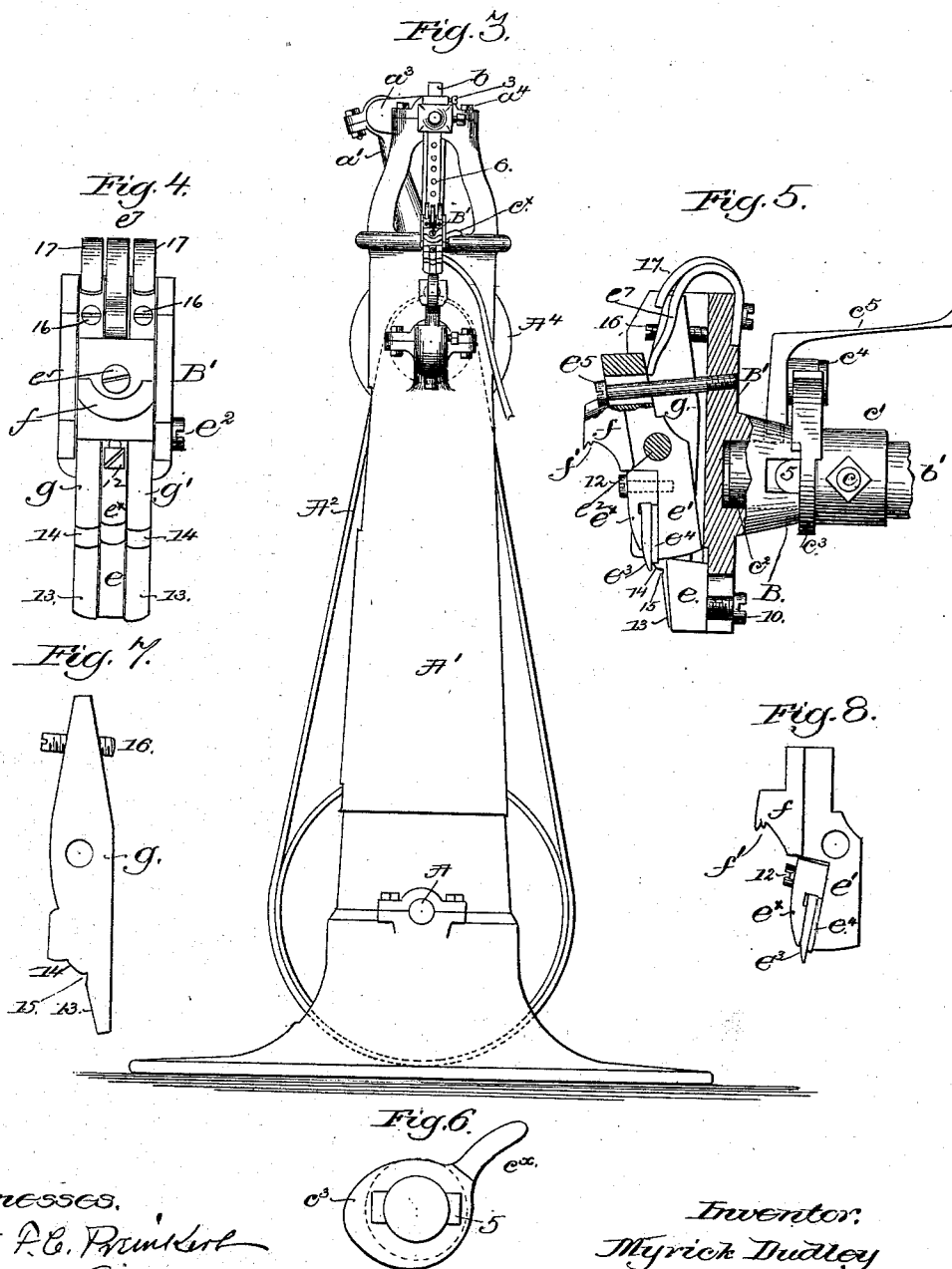
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UNITED STATES PATENT OFFICE.

MYRICK DUDLEY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO IRA B. KEITH,
JOSIAH C. BENNETT, AND GEORGE E. BARNARD, ALL OF SAME PLACE.

BURNISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 263,129, dated August 22, 1882.

Application filed July 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, MYRICK DUDLEY, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Burnishing-Machines for Boots and Shoes, of which the following description, in connection with the accompanying drawings, is a specification.

My present invention is an improvement on United States Letters Patent No. 255,152, dated March 21, 1882; heretofore granted to me, and to which reference may be had.

My present invention relates to means for attaching to the rock-shaft in a yielding manner the lever which carries the burnishing devices; also, in improvements in the construction of the burnishing devices; and in the combination, in the said machine, of an adjustable swiveling rest, whereby the operator is assisted in holding the shoe firmly in place while its edge is being burnished and set.

Figure 1 represents in side elevation a burnishing-machine embodying my improvements; Fig. 2, a detail of the adjustable swiveling rest; Fig. 3, a front end view of Fig. 1, looking at it from the left; Fig. 4, an enlarged front view of the burnishing devices; Fig. 5, an enlarged partially-vertical section thereof, one side of the head of the block holding the burnishing-levers being broken away, one of the burnishing levers or devices being removed to show the lever or device that carries the adjustable lip which projects over the edge of the sole next the upper; Fig. 6, a detail to be referred to; Fig. 7, a detail side view of one of the burnishing devices, and Fig. 8 a like detail of the device carrying the adjustable lip.

The main driven shaft A, mounted in suitable boxes in the standard A', is connected by belt A² with and rotates shaft A³, having thereon the fly-wheel A⁴, having a crank-pin, a, the foot of which is made adjustable in a T-shaped diametrical groove of the said wheel. (See Fig. 1.) The shaft a⁴, having crank a³ and crank-pin a², is connected by link a' with the crank-pin a on the fly-wheel A⁴, and by adjustment of the latter crank-pin the shaft a⁴ may be rocked rapidly over a greater or less distance, according to the length of stroke it is desired to impart to the burnishing devices. The front end of the rock-shaft a⁴ is slotted to

receive the rigid curved arm b, the upper end of which has an adjustable collar, 3, while the lower end of the arm is extended through a hole in the lever b', where it has a nut, 2, screwed upon it. The lever b' is pivoted at b² in a slot in the rock-shaft, and at its front end has bolted to it by bolt c a collar, c', having a bearing stud, c², on which is placed loosely an eccentric, c³, preferably provided with a handle, c⁴, (see Figs. 5 and 6,) which is held in place on the said stud by a pin, 5, the ends of which extend beyond the said stud at each side for a sufficient distance to enter the deep slots (see Fig. 5) made in a neck or lateral extension, B, of the block B', which carries the burnishing devices. This extension B has at its upper side a small opening or hole, in which is entered the reduced end of the holding device c⁵, (shown as a catch bolted to the arm b.) When the pin 5 is in the slots of the hollow extension B and the point of the device c⁵ projects into the opening shown at the upper side of the said extension the block B' will be firmly locked to and will move with the lever b'; but if for any reason it is desired to remove the block and its attached burnishing levers or devices it is only necessary to turn the eccentric c³, which, acting on the roll c⁴, connected with the holding device c⁵, lifts the end of the latter from engagement with the extension B, when the block B' may be withdrawn from the stud c². The rock-shaft a⁴ has bolted to it a stiff spring, b³, the free end of which is reduced to enter any one of a series of holes, 6, (see Fig. 3,) made in the curved arm b. The extent of downward pressure of the block B' and its parts to be described may be made more or less, according to which one of the holes 6 is entered by the end of the spring b³. The collar 3 on the arm b determines the lowest position of the block B' and the burnishing devices. As the operator presses the edge of the boot or shoe being burnished up against the burnishing devices the lever b' yields and rises more or less, according to the strength exerted by the operator and the strength of the spring b³, the arm b then moving longitudinally in the slot in the rock-shaft.

By the mechanism described I am enabled to do away with the spring employed in my

said patent to hold the burnishing devices in place.

If desired, I may employ a screw, 7, (see Fig. 1,) to fix the arm *b* to the rock-shaft *a*⁴.
 5 The shoe the sole-edge of which is to be burnished will be held in the hand of the operator, who will press the edge of the sole upward against the rapidly-vibrating burnishing devices with more or less force, according to the
 10 character of the work being done; and to assist the operator in holding the boot or shoe steadily in position I have provided the machine with an adjustable swiveling rest, *d*, composed of a ring having a shank, *d'*, (see
 15 Fig. 2,) extended loosely through a sleeve, *d*², fixed to and extended from one side of a bar, *d*³, extended through a guide, *d*⁴, and made vertically adjustable by a screw, 9. The shank *d'* is prevented from being drawn out from the
 20 sleeve *d*² by the headed screw *d*⁵. The swiveling rest *d*, grasped by the operator, may be turned or rotated freely. Vertical adjustment of the swiveling rest enables the same to be placed at the proper position vertically, as desired by the operator, according to the work
 25 being done.

The block *B'* has adjustably secured to it by screw 10 the guard *e*, which extends over and bears upon the bottom of the sole. In
 30 line with this guard is a lever, *e'*, mounted on a fulcrum, *e*², (herein shown as a screw.) The front end of lever *e* is curved in the arc of a circle described from the fulcrum *e*², and at one edge has adjustably attached to it by screw
 35 12 a clamp, *e*^x, which holds in adjusted position the lip or rand-guide *e*³ and the edge-beader *e*⁴, each of which may be made to project more or less beyond the curved front
 40 end of the lever *e'*, as may be desired. The lever *e'*, back of the fulcrum *e*², is slotted and receives loosely through it an adjusting-screw, *e*⁵, screwed into the base of the block *B'*, as in
 45 Fig. 5. The head of screw *e*⁵ is larger than the slot at the rear end of the said lever through which the shank of the screw is passed, and by turning the screw *e*⁵ more or less into the
 50 block *B'* its head, by the change of position of the said screw, will determine the height to which the spring *e*⁷ may lift the rear end of the
 55 lever *e'*, and consequently the nearness of approach of the lip *e*³ to the surface or level of the guard *e*, referred to; but it will be obvious that the lip *e*³, as it rides on the top edge of the soleway, may move to accommodate any
 60 increasing thickness of the sole, the spring *e*⁷ then yielding.

In my Patent No. 251,032 the screw for determining the nearness of the approach of the lip to the guard or surface of the tool which
 60 bore against the outline of the sole was in front of the fulcrum of the lever carrying the lip, in which position it was more in the way than when placed, as herein shown, at the rear side of the fulcrum *e*².

65 Connected rigidly with and forming a part of the lever *e'* is the shank-burnisher, the act-

ing-face of which is suitably shaped, as at *f'*, to bead the edge of the shank of the sole.

The burnishing-levers *g g'*, having faces or surfaces 13 to bear against the bottom of the
 70 sole and burnishing-faces 14 to bear against the edge of the sole being polished, instead of being in one piece fixed to the block *B'*, as in my Patents Nos. 246,944 and 251,032, are made
 75 as independent levers, each having its fulcrum on the fulcrum *e*², common to the lever *e'*. Each lever or device *g g'* has at its rear end an adjusting-screw, 16, which determines the distance
 80 to which the rear end thereof may descend, and a curved spring, 17, bearing on the rear end of each lever *g g'*, keeps the surfaces 13
 85 elevated more or less in a yielding manner above the surface of the guide *e*, at the sides of which the said surfaces 13 of the levers *g g'* are free to rise and fall to a limited extent under
 90 pressure exerted thereon by the sole.

By dividing the burnishing-surface into two or more separate parts and pivoting or supporting the same to yield independently of each
 95 other the said surfaces are enabled to follow the sole-edge and burnish the same in a superior manner, and to burnish soles which have been "beaten out" or "rounded," as it is called,
 100 for it will be obvious that the burnishing-surfaces 13 of the levers *g g'*, when passing a curved part of the sole-edge, are free to rise and fall independently of each other, yet the said surfaces
 105 always press firmly upon the bottom of the sole each side of the block *e* and each side the line or point at the top edge of the sole, upon which the lip *e*³ also bears, as described,
 110 in a yielding manner.

The burnishing devices will be kept hot by a gas-flame issuing from the pipe *m*.

I do not broadly claim a finger-rest.

I claim—

1. The rock-shaft, lever *b'*, connected with it, and the attached block *B'*, provided with the burnishing devices, combined with the arm *b* and the adjustable spring *b*³, to operate as described.

2. The lever *b'*, its collar, stud, and pins, and the holder *c*⁵, combined with the block *B'*, having the slotted extension *B*, substantially as and for the purposes set forth.

3. The lever *b'*, its collar, stud, and pins, the eccentric, and holder *c*⁵, combined with the block *B'*, having the slotted extension *B*, substantially as set forth.

4. The block *B'* and the fulcrum *e*², combined with the lever *e'*, provided with the adjustable lip to extend over the top edge of the sole, combined with the adjusting-screw screwed into the block at the rear of the said fulcrum, and with the spring *e*⁷, also located at the rear of the said fulcrum, as shown and described.

5. In a sole-edge-burnishing machine, the lever *e'*, provided with the lip to bear upon the top edge of the sole, and with a shank-burnisher rigidly connected with and forming part of the said lever, substantially as described.

6. In a sole-edge-burnishing machine, a lip, e^3 , to bear upon the top edge of the sole, combined with two burnishing levers or devices having surfaces 13, adapted to yield independently of each other while in contact with the outer face of the sole at its edge, substantially as described.

7. The block B' , lip-carrying lever e' , two levers, g g' , having burnishing-surfaces 14 each side the end of lever e' , and having surfaces 13 to bear against the bottom of the sole, and springs to control the pressure of the said lip, and the surfaces 13, as and for the purposes set forth.

8. In a burnishing-machine, the block B' , its levers e' and g g' , the rock-shaft, the connected lever b' , arm b , and spring b^2 , connected with the rock-shaft and with the arm b , com-

bined with the swiveling rest d , the guide d^4 , and the bar d^3 , made vertically adjustable in the said guide, the latter being located at the front of the standard, substantially as shown and described.

9. The block B' , its extension B , the lever b' , and pin 5, combined with the holder c^5 to engage and hold the said extension and retain the block upon the said lever, as shown and described.

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

MYRICK DUDLEY.

Witnesses:

G. W. GREGORY,
BERNICE J. NOYES.