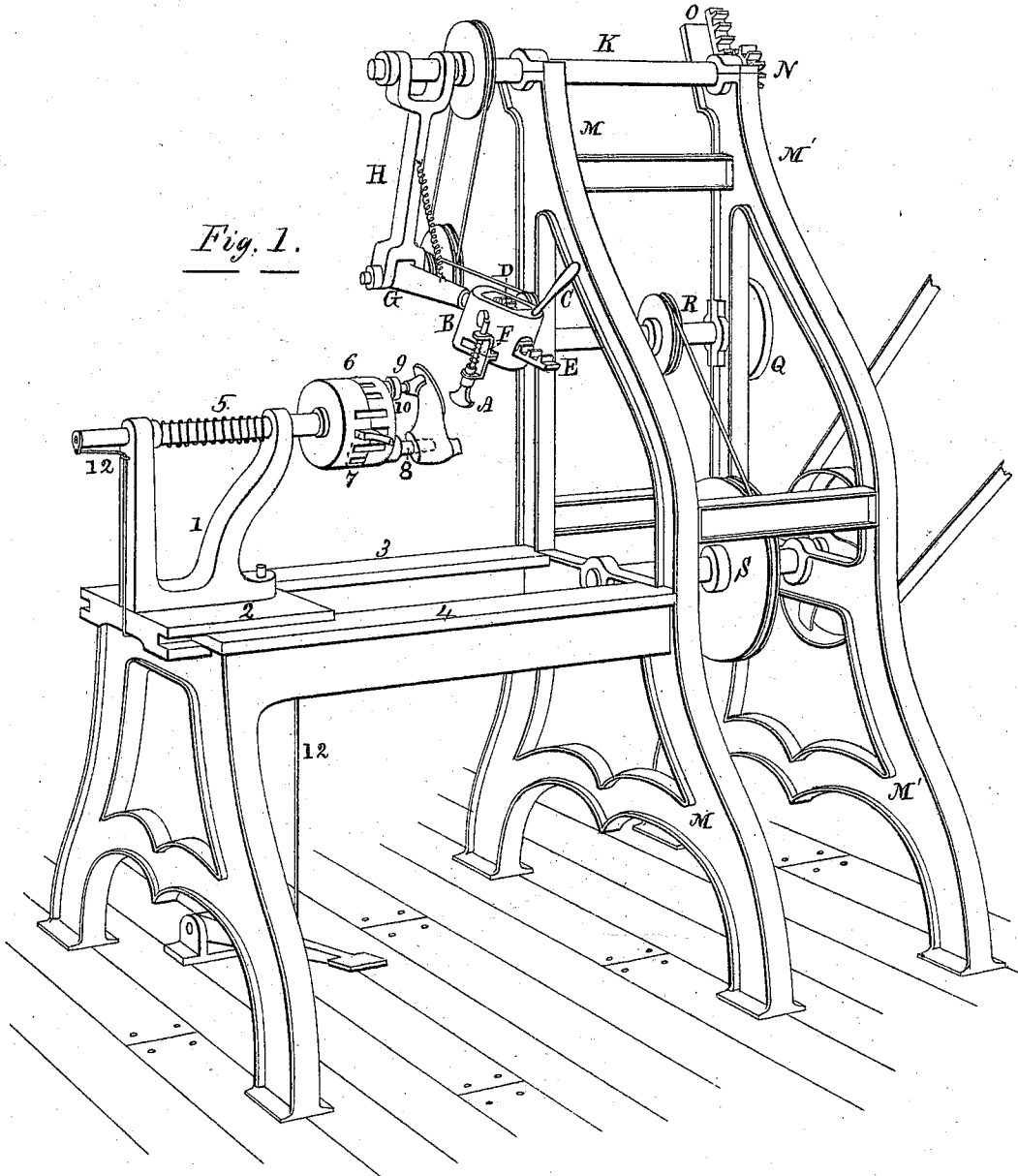


J. BEASLEY & J. BEASLEY, Jr.

Machines for Burnishing the Edges of Boot and Shoe Soles.

No. 141,984.

Patented August 19, 1873.



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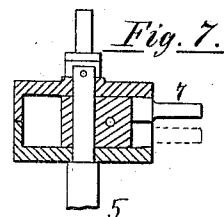
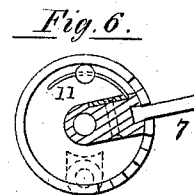
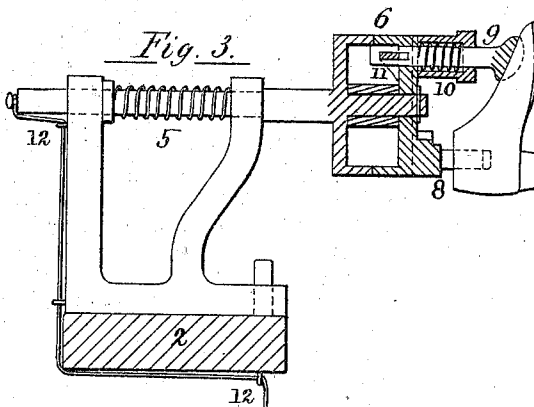
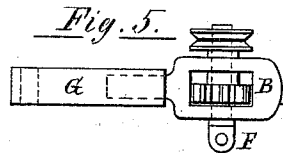
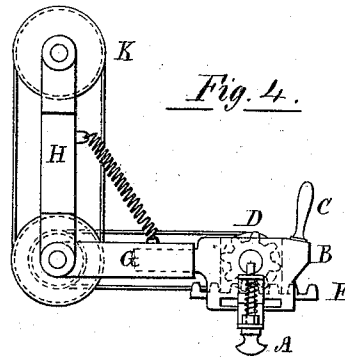
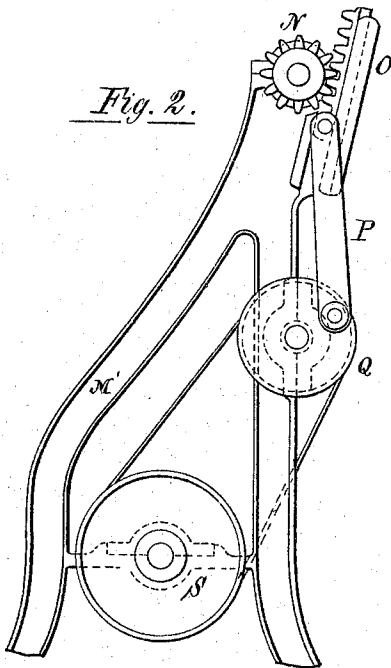
INVENTORS.

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UNITED STATES PATENT OFFICE.

JOSHUA BEASLEY AND JOSHUA BEASLEY, JR., OF LYNN, MASS., ASSIGNORS
OF ONE-HALF THEIR RIGHT TO GEORGE W. KEENE, OF SAME PLACE.

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

Specification forming part of Letters Patent No. **141,984**, dated August 19, 1873; application filed
January 23, 1873.

CASE B.

To all whom it may concern:

Be it known that we, JOSHUA BEASLEY and JOSHUA BEASLEY, Jr., both of Lynn, county of Essex and State of Massachusetts, have invented certain Improvements in Machines for Burnishing the Edges of Boot and Shoe Soles, of which the following is a specification:

This invention pertains to certain improvements upon a machine for burnishing the edges of boot or shoe soles described in another application for a patent of even date with this, and which is marked "first," (A.) in which the burnishing-tool is caused to reciprocate by power independent of the operator, but during the time he is controlling or guiding and pressing it upon the edge to be "set."

In this invention the object sought is the same, but the tool is mounted and reciprocated in a somewhat different manner, as will be hereafter explained; and in the second place the "jack" is differently constructed, as will also appear from the following description and accompanying drawings, in which—

Figure 1 is a perspective view of the machine; Fig. 2, an end view of the same from the right hand; Fig. 3, a sectional view of the jack-head and its base; Figs. 4, 5, 6, and 7, detailed views of parts that will be referred to hereafter.

The setting-tool A in this machine is similar in form to the ordinary hand tools used for such purposes, and the portion that corresponds to the handle in said tools here forms the axis and means of attachment to the reciprocating arm or head B, which is controlled by the operator to any desired position, and by grasping the handle C in the end of said head B. This head is of rectangular form, (see Figs. 1, 4, and 5,) like a box, in which is carried a toothed pinion, D, which engages with a rack, E, that slides longitudinally back and forth near the bottom of said head or box B. Connected to said rack is a bracket or forked arm, F, which reaches through a slot in the side of said box, and to the forked or outer end of which is pivoted the handle of the tool A, so that it can rotate at a right angle to its line of reciprocation. Its capacity to rotate is somewhat limited

by a spiral spring surrounding the handle of the tool, by one end of said spring being made fast to the handle, and the other end being attached to the bracket, by which the tool may be held generally in the direction of the edge of the sole, but may be permitted to conform to the curves of the sole whenever the pressure is great enough to overcome the torsion of the spring. The tool carrying the head B is connected to an arm, G, by a pin or axis (see Figs. 1, 4, and 5) and socket, to permit a rotation of the head on its bearing-axis, and the arm G is pivoted to a pendent arm, H, that is suspended upon the axis or shaft K mounted in the top of the frame M M', which consists of two uprights that rest upon the floor and support the several parts of the operating mechanism. The shaft K is partially rotated by having a toothed pinion on its right hand or outer end, as at N, which engages with a rack mounted in a slide upon the corner of the frame, as at O, Fig. 2, and motion is given to said rack by a connecting rod or bar, P, Fig. 2, which is connected with a crank-pin on wheel Q, that is mounted on the intermediate shaft R, which is driven by a belt or its equivalent from the main shaft S. The partial rotation to and fro of the shaft or axis K will impart a similar motion to the pinion D through the intermediate belts, as shown, and consequently the rack and tool A will be thereby reciprocated back and forth to set the edge of the sole, or with the same rubbing action as when done by hand. A spring is also provided in the angle between the pendent arm and the head to sustain it, as mentioned in the other specification.

The jack for supporting the boot or shoe during the operation of setting the edge is mounted on a rest, as at 1, Figs. 1 and 3, which is held upon a sliding base, 2, working in horizontal guides 3 and 4 as a lathe. Said guides may be mounted upon an independent frame, or be attached at one end to the main frame, or in any other convenient manner, so that the jack may be placed in close proximity to the tool A. Said rest 1 is provided with two upright arms, in the upper end of which an

axis, 5, is mounted in suitable bearings, so that it can rotate and slide longitudinally, and upon the right-hand end of said axis is mounted the head of the jack, as at 6, Figs. 1 and 3. Said head is formed of two disks, with flanges projecting toward and meeting each other in the center of the head. One of said disks is fastened firmly upon the axis 5, and the other is held thereon by a pin or nut on the end of the axis, so that it may be rotated thereon. Upon the inner face of the fixed disk is formed a rib with a dovetailed slot in its outer face, which carries a stud, (best seen at 7, Fig. 6,) which fits into said dovetail, and is held thereby in the head, so that it may not drop out when the head is being revolved. Said stud is made sufficiently wide to serve as a stop to the loose disk of the head, by being placed partly in one and partly in the other; or, if the rib with dovetail recess reaches across to the inner face of the loose disk, then said stud will hold the loose disk by extending from the rib through a slot in the flange of the loose disk, as shown in Figs. 6 and 7.

In Fig. 7 the stud is shown in position for holding the loose disk fixed, so that it cannot revolve. Upon the outer face of the loose disk a stud, 8, is firmly fixed to receive the shoe-last, as commonly done, and to bind it on said stud a sliding bolt, as at 9, with a wide and curved end to fit the shape of the upper of the boot or shoe near the toe, is provided to slide outward from the loose disk through a supporting boss or sleeve thereon, as at 10, and in which is a spiral spring to force said bolt out and hold the end of the boot or shoe with sufficient force to keep it fixed upon the jack. But when it is desired to release the shoe from the jack the lock-stud at 7 is shoved back in the dovetail recess in the fixed disk, and the loose disk is turned on its axis until a tongue of a tapering form edgewise, as at 11, enters a mortise in the inner end of the

bolt or stud 9, and, like a wedge, draws the bolt 9 inward from the toe of the shoe, and thereby releases it while the bolt is held in that position until another shoe is placed on the jack, and the loose disk is turned back to the first position, when the tongue is thereby withdrawn from the bolt sufficiently far to allow the spring to force it out against the shoe, as before.

At the rear end of the axis that carries the head of the jack a cord or strap, as at 12, is fastened and carried forward along the axis to the rear of the rest, and there passed through an eye or over a sheave, and thence on down and underneath the base to a treadle, by which the operator can force the jack-head forward toward the burnishing-tool. This, of course, serves as an assistant to the operator in directing the work to the burnishing-tool.

What we claim is—

1. The head B, having the handle C and bracket F, carrying the burnishing-tool A, in the manner described, in combination with the rack E, pinion D, and arms G H, substantially as and for the purpose specified.
2. The crank-wheel Q, rod P, rack O, and pinion N, in combination with the shaft K and arms G H, arranged as described, for operating the head B, carrying the burnishing-tool A, substantially as set forth.
3. The jack or support for boots or shoes composed of the two disks to form the head, with the stud 7 and 8 and sliding bolt 9, as described, and for the purposes set forth.
4. The tapering tongue 11, in combination with the sliding bolt 9, as described, and for the purposes set forth.

JOSHUA BEASLEY.

JOSHUA BEASLEY, JR.

Witnesses:

EDWARD P. NETTLETON,

GEORGE R. STONE.