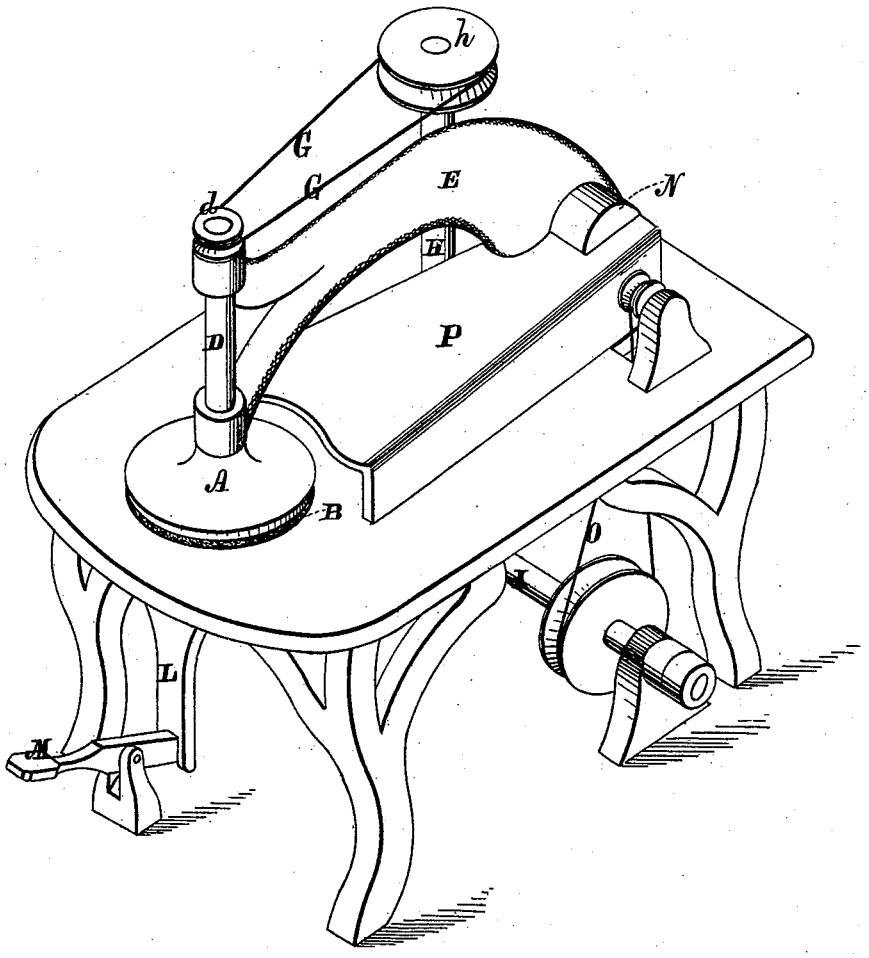
2 Sheets—Sheet 1.

J. G. BUZZELL.

Machine for Shaving and Whitening Leather.

No. 202,226. Patented April 9, 1878.

Fig. 1.



WITNESSES:

Jas. E. Hutchinson.

Henry C. Hazard.

INVENTOR.

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2 Sheets—Sheet 2.

J. G. BUZZELL.

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Fig. 2.

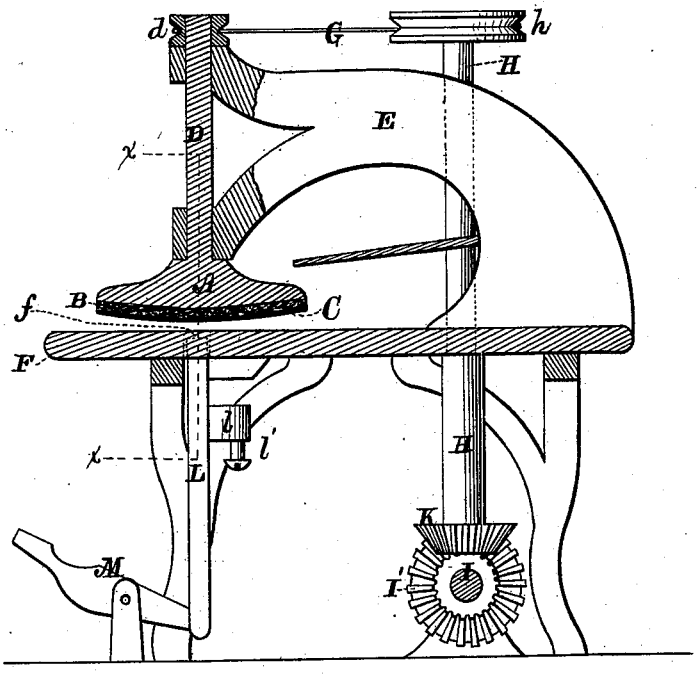
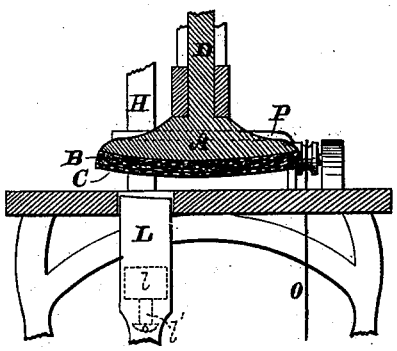


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN G. BUZZELL, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR SHAVING AND WHITENING LEATHER.

Specification forming part of Letters Patent No. **202,226**, dated April 9, 1878; application filed September 15, 1877.

To all whom it may concern:

Be known that I, JOHN G. BUZZELL, of Lynn in the county of Essex, and in the State of Massachusetts, have invented certain new and useful Improvements in Machines for Shaving and Whitening Leather; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my machine as arranged for use. Fig. 2 is a vertical central section upon a line extending from front to rear, and Fig. 3 is a vertical section upon the line *x x* of Fig. 2.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable leather to be easily and evenly shaved or whitened; and to this end it consists, principally, in the combination of the abrading-disk with the mechanism employed for pressing the skin against the same, substantially as and for the purpose hereinafter specified.

It consists, further, in the means employed for limiting the motion of the presser-bar toward the abrading-disk, substantially as and for the purpose hereinafter shown.

It consists, finally, in the construction and combination of the various parts of my machine substantially as and for the purpose hereinafter shown and described.

In the annexed drawings, A represents a disk, preferably metal, which, upon its lower face, is made plane, concave, or convex, as desired, and upon said face has secured a covering of belt or other elastic substance, B, and upon over the latter a covering of sand-paper or other similar abrasive material, C. The disk A is secured to or upon the lower end of a shaft, D, which is journaled within an arm, E, that extends upward and forward from a table, F, the arrangement being such as to leave a clear space upon all sides of and beneath said disk for the insertion of the skins to be operated upon. Motion is communicated to the shaft D by means of a belt, G, which passes around a pulley, *d*, that is attached to its upper end and around a band-wheel, *h*, which is secured upon and revolves with a shaft, H, that is journaled vertically within suitable bearings near the rear end of the table F. The shaft H is driven from a countershaft, I, which is journaled horizontally beneath the table F, and is connected with said shaft H by means of two bevel-gears, I′ and K, that are secured upon said shafts in such position as to cause them to mesh together.

The skins to be operated upon are placed upon the table F and passed beneath the disk A, and are pressed against the abrading-surface of the latter by means of a bar, L, which passes upward through a slot, *f*, in said table. The upper end of the bar L has a width equal to several times its thickness, and is arranged with its longest dimensions upon a radial line. Said end is rounded in a line with the movement of the disk A, and radially conforms to the shape of the lower face of the latter. The lower end of the bar L is pivoted to one end of a treadle, M, which treadle is pivoted centrally upon a suitable support, with its front end within convenient reach of the foot of the operator, so that by pressing downward upon the forward end of said treadle said bar will be raised. A lug, *l*, extending rearward from the bar L, at a point just below the table F, sustains a set-screw, *l′*, which passes upward through said lug and bears against the lower side of said table when said bar reaches the upper limit of its motion. By changing longitudinally the position of said screw the distance to which said bar may move upward will be correspondingly varied.

In using the machine, a skin is placed upon the table F and passed beneath the disk A, and, by means of the bar L, has its entire lower surface pressed against the abrading-face of said disk, so as to cause the upper side of said skin to be cut away until the thickness of the latter corresponds to the space between said disk and bar, when the latter is moved to the upper limit of its motion.

In order that the dust produced by the machine may be removed and prevented from annoying the operator, an exhaust-fan, N, is placed upon the rear end of the table F, and is driven by means of a belt, O, from the countershaft I. From the fan N a duct, P, extends forward to and slightly over the rear

edge of the disk A, and into such duct all dust and particles of leather will be drawn by the suction of said fan.

The machine thus constructed enables leather to be shaved more evenly and with less trouble than would be possible by use of a machine having abrading-rollers, while the abrading-surface can be more quickly and perfectly renewed than can the surface of said rollers.

When used for shaving or whitening leather, a plane or convex disk is employed; but for use in dressing the shanks of boots and shoes, or for other like irregular surfaces, either the concave or convex faced disks may be employed to advantage.

I am aware that machines have before been used in which the skin being operated upon was pressed against the abrading-surface by means of a movable support, and therefore do not claim, broadly, such construction.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In a machine for shaving and whitening leather, the combination of the disk A, covered upon its face with abrasive material, and arranged to rotate in a horizontal plane, the slotted supporting-table F, and the bar L arranged to be moved positively and vertically by means of the lever M, whereby any portion of the surface of a skin may be raised into contact with said disk at the will of the operator, substantially as and for the purpose specified.

2. In combination with the presser-bar L, the set-screw *l'*, passing through the lug *l* of said bar, and arranged to impinge upon a fixed stop, so as to limit the upward motion of said bar, substantially as and for the purpose shown.

3. The hereinbefore-described machine, consisting of the abrasive disk A, shafts D and I, table F, arm E, pulley *d*, belt G, hand-wheel *h*, bar L, having the lug *l* and set-screw *l'*, treadle M, fan N, belt O, and duct P, said parts being combined to operate in the manner and for the purpose substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of August, 1877.

JOHN G. BUZZELL.

Witnesses:
HENRY F. CHASE,
CHAS. S. FULLER.