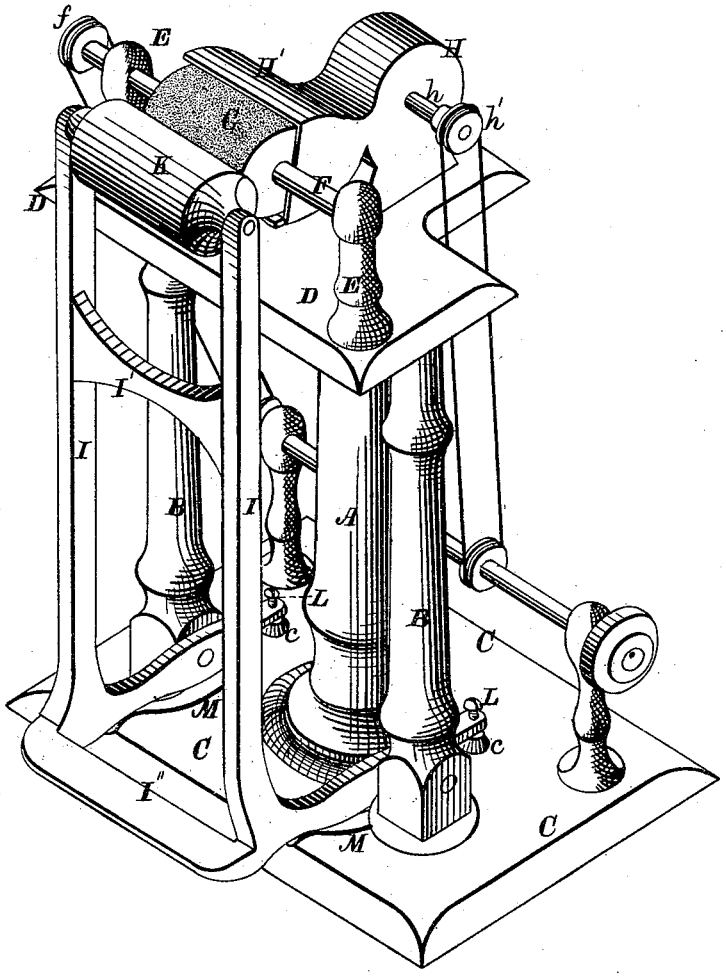
2 Sheets—Sheet 1.

J. G. BUZZELL.

MACHINE FOR WHITENING AND SHAVING LEATHER.

No. 191,400. Patented May 29, 1877.

Fig. 1.



WITNESSES:
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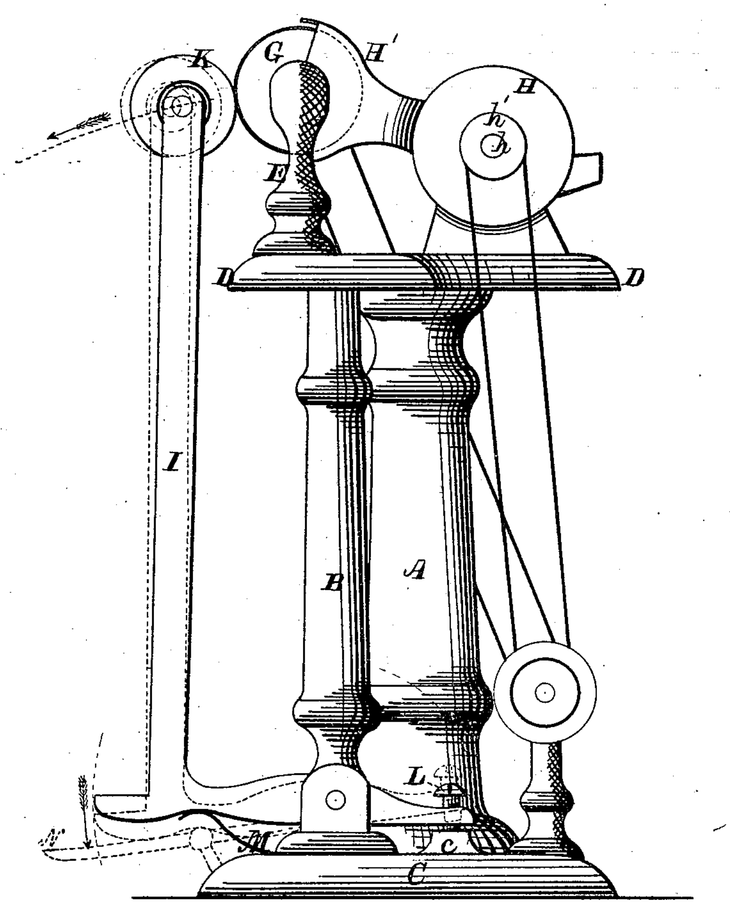
Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN G. BUZZELL, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR WHITENING AND SHAVING LEATHER.

Specification forming part of Letters Patent No. **191,400**, dated May 29, 1877; application filed November 20, 1876.

To all whom it may concern:

Be it 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 improved machine as arranged for use, and Fig. 2 is a side elevation of the same.

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

The design of this invention is to enable the rough loose fiber upon the inner side of the tanned skins of animals to be easily and quickly removed, so as to leave the surface smooth and not injure the leather; to which end it consists in the means employed for passing a skin in front of, and regulating its pressure upon, the abrading-roller, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A represents a central standard, and B two side standards, which extend upward from a suitable base, C, and upon their upper ends support a table, D, which has, preferably, the form shown in Fig. 1.

From the front corners of the table D two posts, E, extend upward for a short distance, and within their upper ends have journaled a shaft, F, which, between said posts or bearings, carries a roller, G, that is covered with sand-paper, emery, or other suitable abrasive material.

Upon the rear side of the table D is placed an exhaust-fan, H, which is provided with an induction-pipe, H′, that extends forward, and at its end loosely incloses the upper and lower sides and the ends of the roller G.

The roller-shaft F and fan-shaft *h* are each provided with belt-pulleys *f* and *h′*, respectively, from which belts extend to a suitably-located driving-shaft, the arrangement being such as to cause said parts to rotate simultaneously, so that all material removed by the abrasive action of the roller G shall be drawn into the fan and driven from the room.

Pivoted between the lower ends of the standards B is a frame, which consists of two side bars, I, that have an L shape in side elevation, and are connected together by means of a cross-bar, I′, near their upper ends, and a second cross-bar, I″, that is placed at the intersection of the vertical and horizontal portions of said side bars.

The bearings for the pivoted frame are near the longitudinal center of its horizontal portions, while its vertical portion extends upward in front of the roller-shaft F, and furnishes, at its upper end, bearings for a second roller, K, which is journaled therein parallel to, and upon a line horizontally with, the roller G.

As thus arranged, it will be seen that by moving the pivoted frame upon its bearings the roller K can be caused to approach to, or recede from, the roller G.

In order that the movement of the roller K toward the roller G may be regulated so as to prevent their peripheries from approaching more nearly than is desired, a set-screw, L, is fitted into a vertical threaded opening in the rear end of each horizontal arm I of the pivoted frame, and has its lower end in contact with the base-plate C, or with suitable lugs *c*, that are formed thereon.

As thus arranged, by turning the screws L downward the rear ends of the horizontal arms I will be raised, their outer ends depressed, and the upper portion of the frame, with the roller K, moved away from the roller G, while by withdrawing said screws said rollers will be caused to approach each other. When the screws have been adjusted, the pivoted frame may be moved outward at its upper end, within its limits of motion, but cannot pass inward beyond the limit fixed by said screws.

A spring, M, placed beneath the outer end of the horizontal portion of each bar I holds the pivoted frame at its inner limit, while an outward extension of the lower cross-bar I″ furnishes a bearing for the foot of an operator, and enables him to move the roller K outward by a downward pressure upon said cross-bar.

The springs M may be omitted, if desired,

and a foot-lever, N, (shown by dotted lines of Fig. 2,) employed for pressing the bearing-roller to its inner limit.

The device thus constructed is employed as follows: The bearing-roller is moved outward until a skin can be passed over the same with its inner side toward the abrading-roller, after which the operator's foot is removed from the foot-bar, and the springs move said bearing-roller toward said abrading-roller, and press against the latter such portion of the skin as is between their peripheries.

The operator now moves the skin so as to bring each portion of its inner face into contact with the abrading-roller, and cause the latter to remove any loose fibers, flesh, &c., from the same. When one portion of the skin has greater thickness than other portions the surplus stock can be removed, and the skin rendered uniform in thickness.

If desired, a fixed bar can be employed in place of the bearing-roller, the only advantage obtained by use of the latter being a decrease in friction, and, consequently, the more easy operation of the machines.

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

1. In combination with the abrading-roller G, the bearing-roller K, the pivoted roller-frame I, I′, and I″, the set-screws L, and the springs M, said parts being constructed to operate in the manner and for the purpose substantially as specified.

2. In a machine for shaving and whitening leather, a cylinder or other support for receiving the leather, which is arranged parallel to, and in a plane with, the abrading-roller, and is supported within a spring-yielding pivoted frame, and is capable of being moved toward or from said abrading-roller by the oscillation of said frame, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of November, 1876.

JOHN G. BUZZELL.

Witnesses:

WM. HOWLAND,

JOHN GARNEY.