2 Sheets—Sheet 1.

J. McWILLIAMS.

BUFFING AND POLISHING MACHINE.

No. 188,930. Patented March 27, 1877.

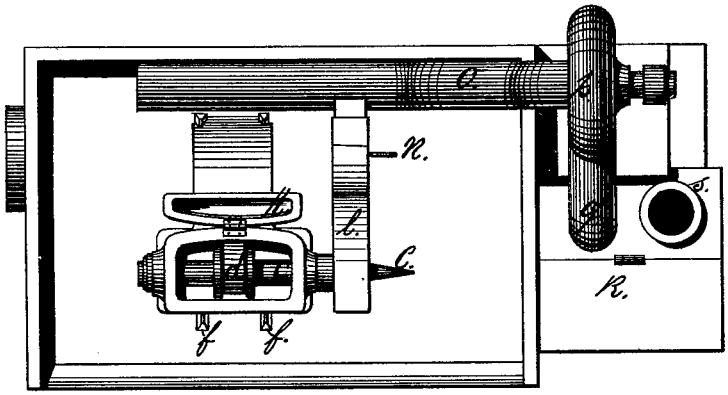

FIG. 1.

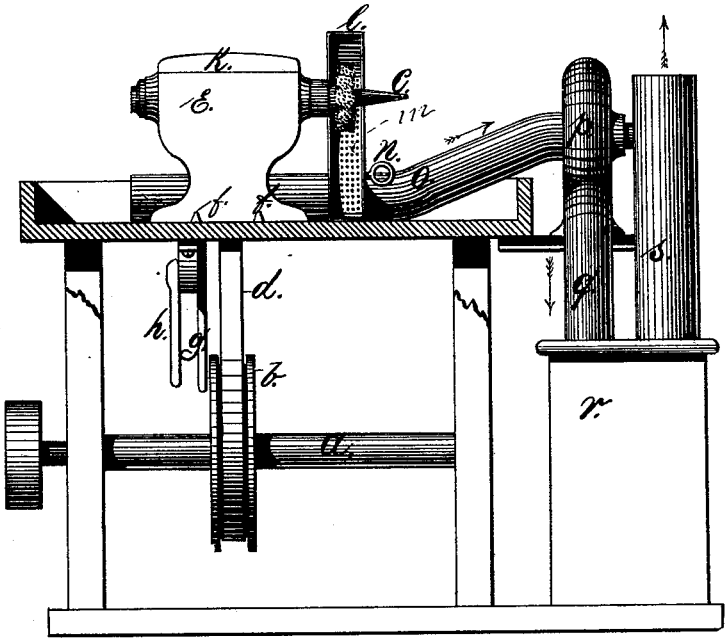

FIG. 2.

WITNESSES.

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2 Sheets—Sheet 2.

J. McWILLIAMS.

BUFFING AND POLISHING MACHINE.

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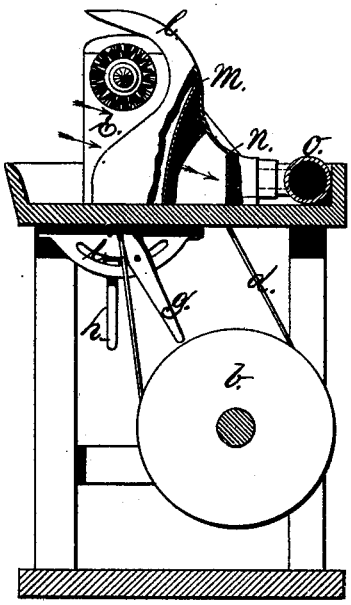

FIG. 3.

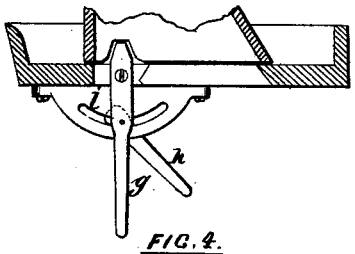

FIG. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN McWILLIAMS, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN BUFFING AND POLISHING MACHINES.

Specification forming part of Letters Patent No. **188,930**, dated March 27, 1877; application filed September 8, 1876.

To all whom it may concern:

Be it known that I, JOHN McWILLIAMS, of the city and county of Providence, State of Rhode Island, have invented certain new and useful Improvements in Buffing and Polishing Machines; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a top view of my improved buffing and polishing machine. Fig. 2 is a front elevation of the same, partly in section. Fig. 3 is a cross-section, showing the adjusting arrangement, and also the air-exhaust, with the screen and valve. Fig. 4 is a view of the lever *g* and clamping-lever *h*.

Similar letters of reference indicate corresponding parts.

This invention has reference to that class of buffing and polishing machines used by jewelers to polish jewelry; and consists in the peculiar and novel arrangement of the parts, as will be more fully set forth hereinafter.

In the drawings, *a* is the main driving-shaft, on which the pulley *b* is secured. *c* is the spindle on which the buffing-disk or brush-disk is secured. The spindle *c* is provided with a small pulley, and is driven by the belt *d* from the larger pulley *b*, secured to the shaft *a*. The spindle *c* is supported in permanently-fixed bearings in the spindle-stock E, and this spindle-stock rests on the ways *f f*, on which the same may be slid in or out by means of the lever *g*, which swings on a pin or fulcrum secured to the table, and has its upper end arranged to slide in a groove or recess, while the lower end extends below the table and is provided with the clamp *h*, by which it may be secured to the segment *i* in any desired position. By this arrangement the belt will be tightened when the lever *g* is pushed backward, as by this means the spindle-stock is moved forward and loosened when the lever is brought forward, so that any desired tension may be secured to the belt and the spindle-stock may be firmly secured by the clamping-lever *h*, both levers being conveniently situated under the table. The spindle-stock is provided with the hinged cover K, by which the spindle-bearings and the belt are protected against dust, and still are easily accessible. *l* is a hood or funnel partly surrounding the brush or buffing disk, and provided with a screen, *m*, and valve *n*. This funnel or hood *l* is connected with the suction-pipe *o*, and by the same with the fan-blower *p*, to which rotative motion is imparted, and all dust and fine metal from the buffing or polishing machine are carried through the funnel *l*, pipe *o*, and fan *p*, by the pipe *q*, to the tank *r*, in which the same is collected, the air escaping through the pipe *s*.

In buffing or polishing machines as heretofore constructed the screen *m* was placed near the fan and a receptacle arranged before the screen in the pipe *o*, so that small articles of jewelry carried in by the suction could be regained before reaching the fan. Such an arrangement necessitated the stopping of all the machines, whereas, by my improved arrangement of placing the screen in the mouth of the suction-funnel and a valve immediately in the rear, none of the machines need be stopped, and the operative need not leave his or her position to regain any article carried off by the air-suction. In large establishments, where a large number of buffing and polishing machines are connected with one exhaust-fan, this arrangement saves a great deal of time and labor.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a jeweler's buffing or polishing machine, the combination of the adjustable spindle-stock E, provided with the hinged cover K of the ways *f f*, the lever *g*, and clamping-lever *h*, the whole operating together substantially as and for the purpose set forth.

2. In a jeweler's buffing or polishing machine, arranged substantially as described, the combination, with the fan *p* and suction-pipe *o*, of the funnel *l*, the screen *m*, and valve *n*, arranged substantially as and for the purpose specified.

JOHN McWILLIAMS.

Witnesses:

JOSEPH A. MILLER,

A. A. WHITE.