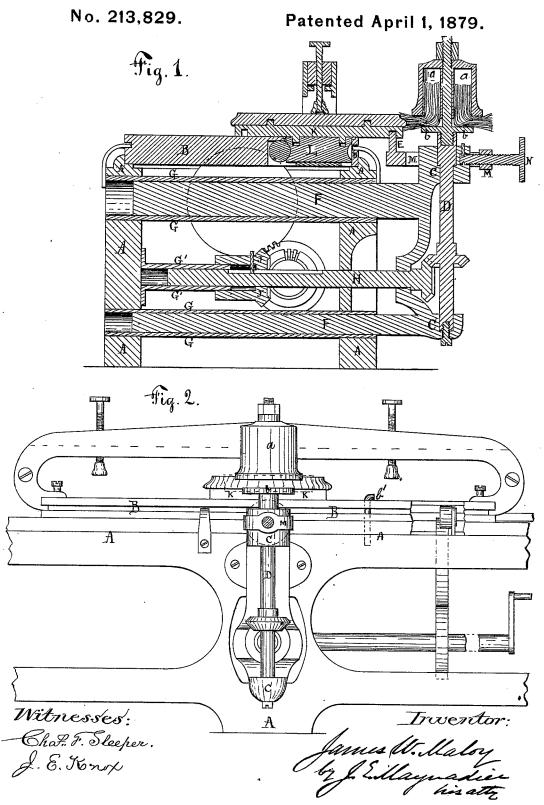
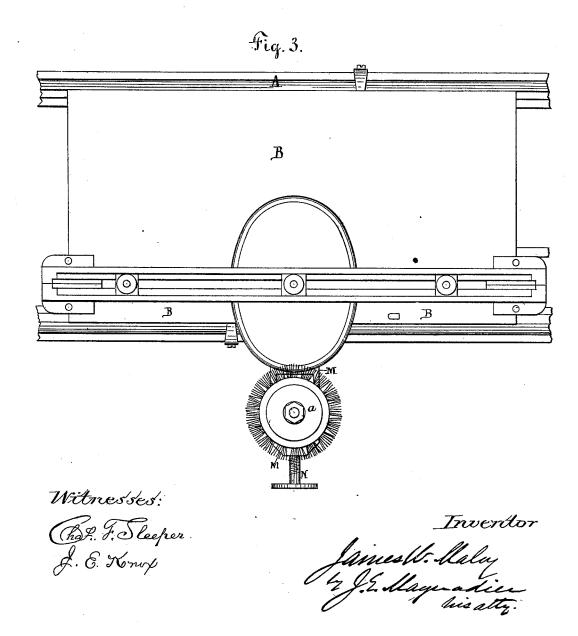
J. W. MALOY.
Machine for Polishing Stone, &c.



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No. 213,829.

Patented April 1, 1879.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

## UNITED STATES PATENT OFFICE.

JAMES W. MALOY, OF SOMERVILLE, ASSIGNOR TO AMERICAN MARBLE CUTTING COMPANY, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN MACHINES FOR POLISHING STONE, &c.

Specification forming part of Letters Patent No. 213,829, dated April 1, 1879; application filed May 4, 1875.

To all whom it may concern:

Be it known that I, JAMES W. MALOY, of Somerville, county of Middlesex, and State of Massachusetts, have invented certain Improvements in Machines for Polishing Stone or other Materials, of which the following is a specification:

My invention relates to that class of machines described in my Patents No. 53,845, dated April 10, 1866; No. 58,853, dated October 16, 1866; No. 61,220, dated January 15, 1867, and No. 70,449, dated November 5, 1867, which, though intended primarily for ornamenting slabs of marble, may, of course, be used upon any other material capable of being worked by such machines; and consists in certain improvements, fully described herein, upon the machines heretofore patented by me.

In the drawings, Figure 1 is a cross-section, and Fig. 2 is a side elevation. Fig. 3 is a plan.

A is the framing. B is a table mounted upon the framing. This table is mounted on ways, so that it can be moved back and forth upon the framing, as described in an application now pending, and also in some of my former patents.

When the material to be operated upon does not require to be rotated, it is clamped directly upon this table, which is connected to the pin E by means of a pattern-groove, such as is shown in Fig. 1, and which is fully described in my application for patent filed of even date with this. In this case the only motion of the table B, and the material clamped upon it, is in right lines, parallel with the sides of the framing A, and provision is therefore made for the motion of the tool toward and away from the table B. This arrangement of the bearings of the tool-spindles upon slides constitutes the first part of my invention.

The bearings C C of the tool-spindle D are connected to the framing A by means of the bars F F, which slide back and forth in the sleeves G G as the pattern requires the tool to move away from or toward the table B, these sleeves G being rigidly attached to the framing A.

The shaft H, which drives the tool-spindle, also slides back and forth in the sleeve G'.

which serves as a stud for the gear J, which gives its motion to the shaft H, the gear J and shaft H being connected by a feather and groove in a well-known way.

When the material to be operated upon requires to be rotated, it is clamped upon the table K, which is doweled onto the disk L, which is flush with the table B. This disk L has a rotary motion imparted to it by proper feed mechanism, which mechanism should be such that the operator can throw it into and out of gear, and make it feed in either direction at will.

In polishing curved surfaces of comparatively regular outline, it is unnecessary to move the table B, which may then be held stationary by the pin b'. When the table K is not used, this pin is of course removed.

The sliding motion of the table B in a direction at right angles to the sliding motion of the bars F F and the rotary motion of the table K operate in conjunction with the pin E and the adjusting-slide M and screw N, in a manner which needs no explanation here, as it is fully explained in my application above referred to, and partially explained in certain of my former patents.

The tool-spindle D has secured upon its upper end a brush-case. This brush-plate consists of the receiver a, in which the long bristle-like fibers of the grass used to form the brush are inserted, and the clamp-plate b, the projecting ends of the bristle-like fibers, which form the circular brush, projecting from between the lip of the receiver a and the clamp-plate b, and being clamped between them.

When the brush is worn out the clamp-plate is loosened, the fibers are drawn out sufficiently to make a new brush, and reclamped, and so on until the fibers are used up, when a new batch of fibers is substituted. This is a second feature of my invention.

What I claim as my invention is—
1. The combination of the tool-spindle, its bearings C C, bars F F, and sleeves G G, substantially as described.

2. The combination of the receiver a and clamp-plate b, substantially as described.

JAMES W. MALOY.

Witnesses:

J. E. MAYNADIER,

J. E. Knox.