2 Sheets—Sheet 1.

D. C. MYERS.

MARBLE POLISHING MACHINE.

No. 181,466. Patented Aug. 22, 1876.

Fig. 1.

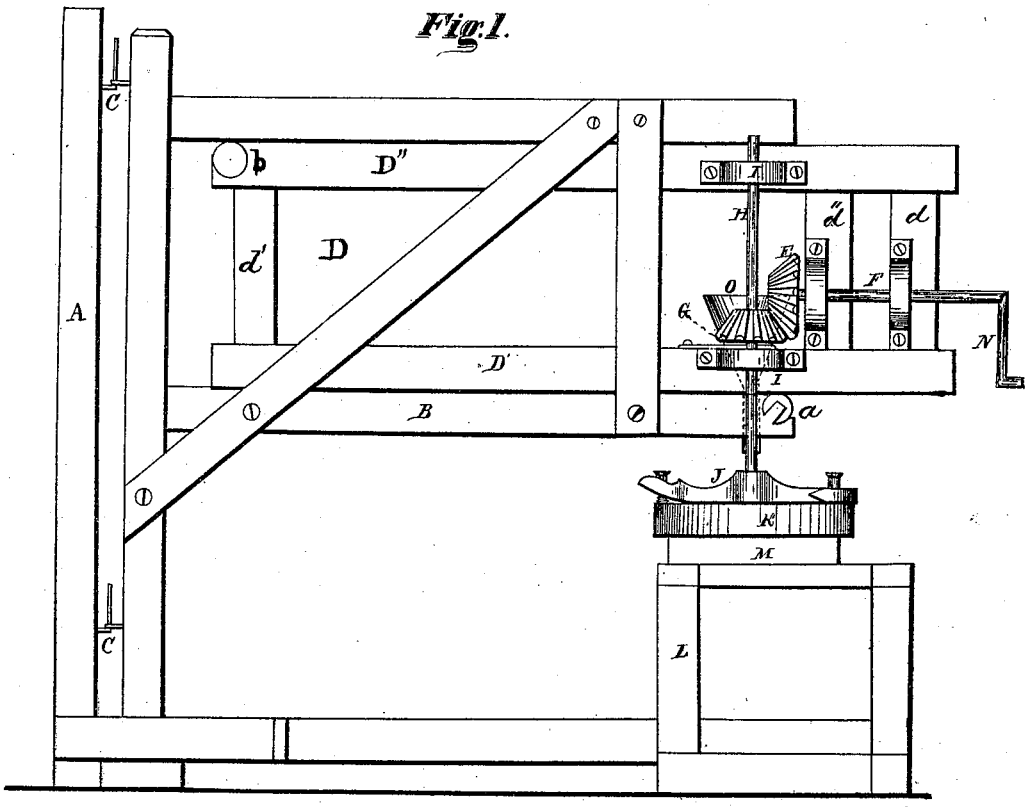
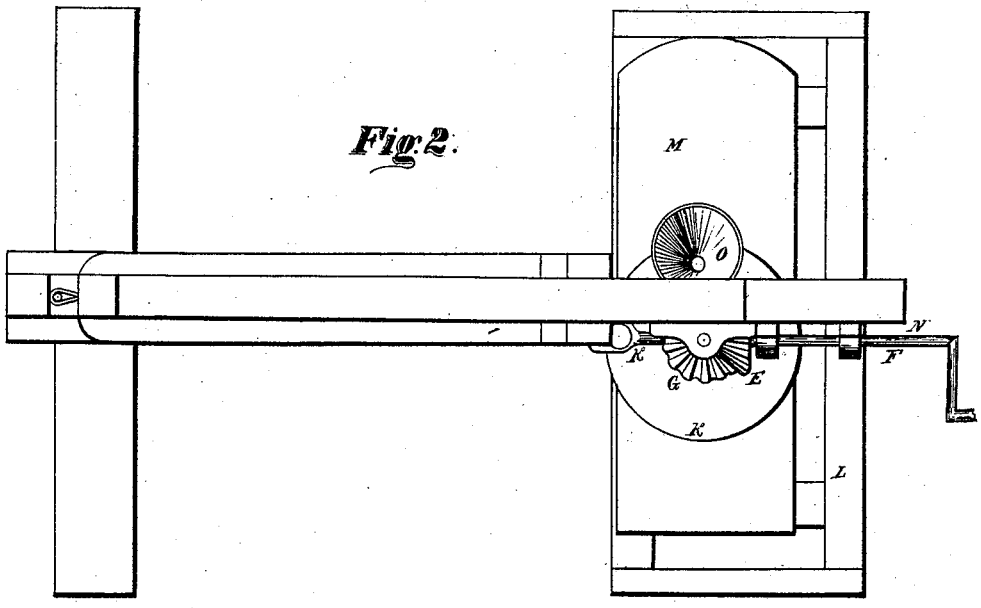


Fig. 2.



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2 Sheets—Sheet 2.

D. C. MYERS.

MARBLE POLISHING MACHINE.

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Fig. 3.

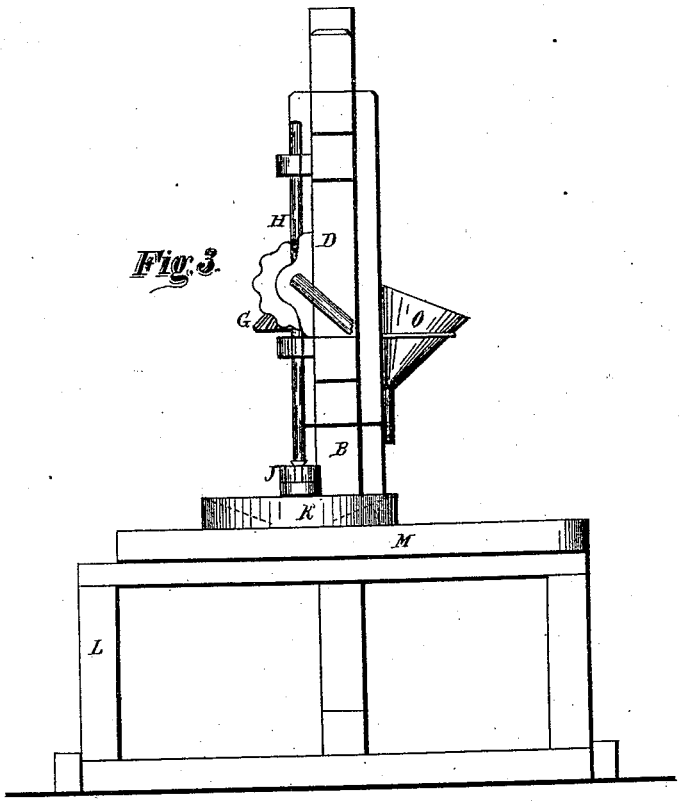
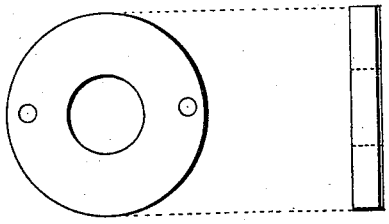


Fig. 4.



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UNITED STATES PATENT OFFICE.

DAVID C. MYERS, OF OSKALOOSA, IOWA.

IMPROVEMENT IN MARBLE-POLISHING MACHINES.

Specification forming part of Letters Patent No. **181,466**, dated August 22, 1876; application filed February 12, 1875.

To all whom it may concern:

Be it known that I, DAVID C. MYERS, of Oskaloosa, in the county of Mahaska and State of Iowa, have invented a certain new and Improved Machine for Polishing Marble, of which the following is a full and complete description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of the machine. Fig. 2 is a plan view. Fig. 3 is a front elevation. Fig. 4 is a detached section.

Like letters of reference refer to like parts in the several views.

The purpose of this invention is to polish stone, as, for instance, monumental marble, mantels, table-tops, and other plain surfaces of stone, by means of a revolving disk of iron operated by certain gearing arranged in a sliding carriage, said carriage being held in a bracket or frame secured to a wall, so that it may swing laterally over the table whereon the stone being polished lies, substantially in the manner as hereinafter more fully described.

In the drawing, A represents the side of a room or wall thereof, to which is hung a frame, B, on the hinges *c*, whereby the frame is permitted to swing laterally. In said frame is fitted, so as to slide longitudinally therein, a carriage, D, which is constructed with bottom and top rails D′ D″, separated by standards *d* *d′* *d″*, and supplied with friction-rollers *a* *b″*, in the front end of which carriage D, and supported by its rails D′ D″ and standards *d* *d′* *d″*, is a bevel-pinion, E, secured to the shaft F, and made to engage a corresponding gear, G, on the vertical shaft H, having its bearings in the boxes I. To the lower end of the shaft H is secured a cross-head, J, Fig. 1, to which is attached an iron disk, K, made to revolve by the gearing above referred to. L is a table, whereon is laid the stone to be polished, and which is represented at M, upon which the polishing-disk is seen to rest, and which is operated for polishing the stone by turning the crank N, thereby actuating the gearing and causing the disk to revolve on the face of the stone.

The grinding or polishing material—sand, or other substance—is placed in the hopper *o*, from which it flows down from and through the opening or eye of the disk to the slab M, over which the disk revolves, and between which and the slab the sand finds its way, thereby smoothing and cutting down its rough, uneven surface. Water is supplied to the surface of the slab through the eye of the disk along with the sand, and which may be had from a pail or other vessel placed above the machine at any convenient point, and conducted thereto by a hose. As the disk continues to revolve, it is made to traverse over the face of the slab longitudinally by swinging the frame from side to side, and transversely over the slab by moving the carriage D backward and forward in the frame. This smoothing down or grinding of the surface of the slab by the application of sand and water is followed by the polishing-disk, Fig. 4, the rubbing-surface of which is provided with cloth or other proper material for that purpose. The operation of the polishing-disk is substantially the same as the grinding-disk, the one being substituted for the other, as the work requires. To cause the carriage to move freely in the frame is the purpose of the friction-rollers *a* *b*, Fig. 1.

It will be seen that the swinging frame B can be swung freely around in any direction, and that the frame D, which carries the polishing device, can be adjusted back and forth over the stone independently of the frame B and the operating mechanism. By thus making the frame D independent of the mechanism and the frame in which it slides, the polishing device can be quickly adjusted over any desired part of the stone, and made to operate in that one place alone as long as may be desired.

By placing the operating mechanism in the outer end of the frame D, the operator can use the crank N not only for operating the polishing and grinding device, but for moving the frame D in and out so as to get as fine an adjustment as may be necessary. He is also enabled to dispense with driving-belts and other intermediate gearing, and thereby produce a simpler and a cheaper machine than has heretofore been done.

I am aware that the lateral adjustment of the frame that carries the grinding and polishing device is not new, as the same is shown

the patent to H. Quigg, December 15, 1874, id this feature I disclaim.

What I claim as my invention, and desire secure by Letters Patent, is—

In a marble-polishing machine, the combi-ation of an upright, A, a swinging derrick-ame, B, an independently horizontally-mov-g frame, D, that moves in and out of the frame B, and supports the driving-wheels E G, and shafts H F, and cross-head J, substantially as shown and described.

DAVID C. MYERS.

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