C. H. Fitch.

Polishing Stone.

No. 97,494. Patented Dec. 7, 1869.

Fig. 1.

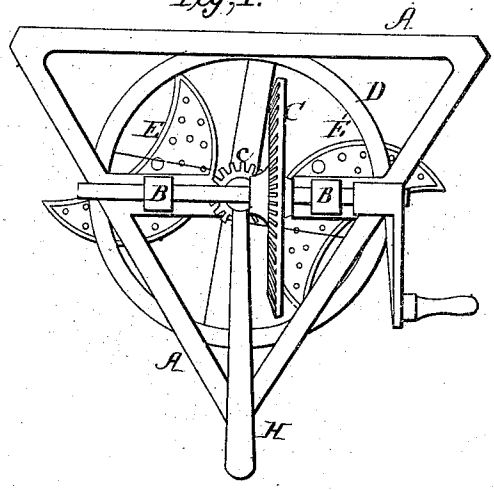


Fig. 3.

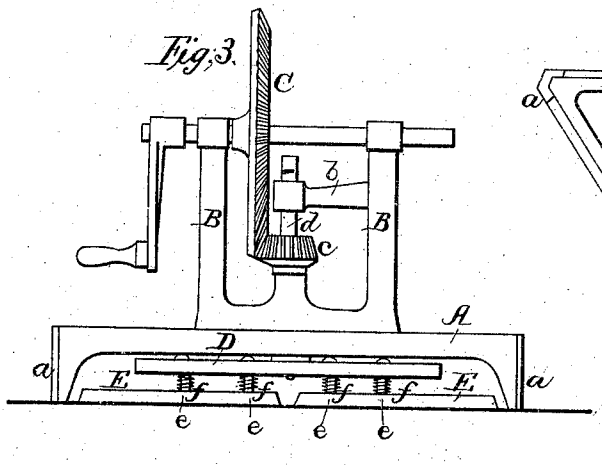
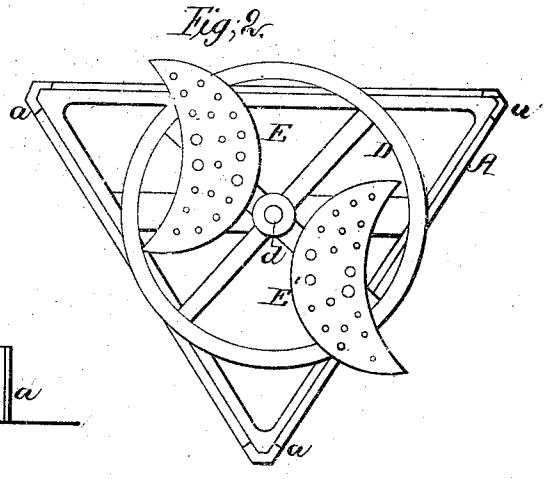


Fig. 2.



Witnesses;

Wm. A. Dodge

F. A. Morley

Inventor;

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UNITED STATES PATENT OFFICE.

CALVIN H. FITCH, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN MACHINES FOR POLISHING STONE, &c.

Specification forming part of Letters Patent No. **97,494**, dated December 7, 1869.

To all whom it may concern:

Be it known that I, CALVIN H. FITCH, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Machines for Polishing Stone, Glass, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of my invention. Fig. 2 is a bottom view, and Fig. 3 is a side view or elevation.

Similar letters of reference indicate like parts in the several figures.

This invention relates to certain improvements in stone-polishing machines, whereby the rubbers are made more adaptable to various kinds of work than heretofore, and the sand is retained longer under the rubbers, and a simple and easily-operated hand-machine is obtained, as hereinafter more fully explained.

In the accompanying drawings, A is a triangular frame-work supported on legs *a a*, placed at its corners. This frame-work is provided with suitable standards, B B, for mounting driving-gears C *c*, which give motion to the vertical shaft and fly-wheel *d* D, to which the rubber is attached.

H, Fig. 1, is a handle, by which the machine is moved about over the surface of the work, and by which it is steadied in position.

The rubber consists in two separate pieces, E E′, of a crescent form, as shown in Fig. 2, which are secured to the balance or fly wheel D, with their concave sides outward, by means of bolts *e*, Fig. 3, which are left free to slide vertically in said fly-wheel. To increase the pressure on the rubber or rubbers, without extra weight, pressure-springs *f* are placed on the bolts *e*, between the rubbers and the fly-wheel. These springs can be made of metal or rubber, as desired. The bolts *e* screw into the rubbers E, and said rubbers are provided with more than one set of holes for the bolts, so that the position of the rubbers can be changed or varied to expand or contract their reach. By this means the rubbers are easily expanded to the full size of the frame-work, or can be contracted within small space, and, owing to the form of the advanced points of the crescents, the sand is being constantly returned to the center, to counteract the centrifugal tendency for the sand to be thrown outward beyond the reach of the rubbers.

By the use of a triangular frame-work, A, the rubbers can work beyond the frame on one of the sides with greater facility, so that in polishing marble floors, &c., the rubbers can act close up to the walls without the frame-work being in the way. In the construction of the frame-work and supports each shaft is provided with two bearings, as shown, so that the parts shall run freely, and with as little cramping-friction as possible.

In commencing on a rough job or surface the machine runs more free and easy when the rubbers are held down by spring-pressure, and the weight of the rubbers not depended on wholly for the rubbing-pressure.

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

1. The rubbers E E′, attached to a rotary disk or balance-wheel, D, and made adjustable thereon, substantially in the manner and for the purpose herein described.

2. The springs *f f*, interposed between the rubbers E E′, and rotary disk or balance-wheel D, in combination with said rubbers and wheel, substantially as herein described, for the purpose set forth.

3. The combination of the triangular frame A *a* with standards B B *b* and a handle, H, horizontal rotary balance-wheel D, with shaft *d*, adjustable rubbers E E′, springs *f f*, and gearing C *c*, all constructed and arranged to operate substantially as herein described.

The above specification of my invention signed by me this 3d day of June, 1869.

CALVIN H. FITCH.

Witnesses:

WM. J. DODGE,

F. A. MORLEY.