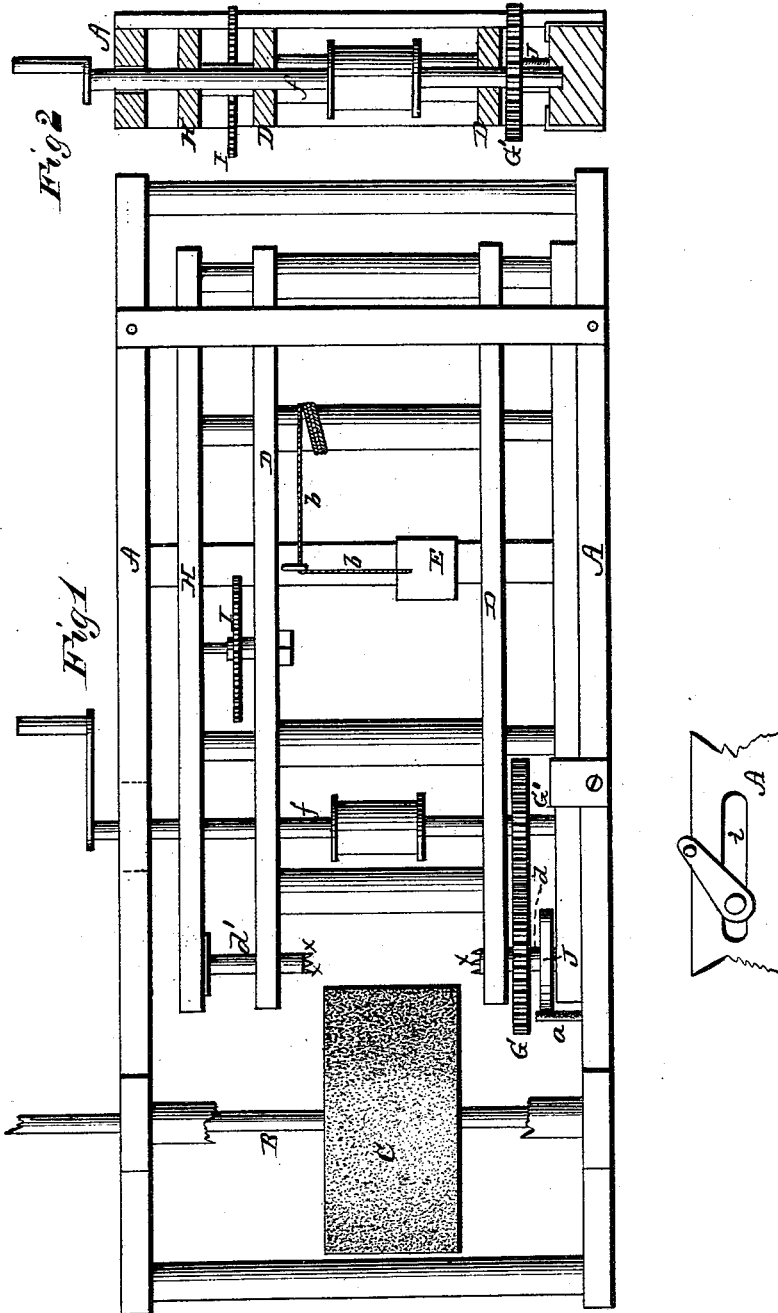


O. ABELL.

Machine for Dressing Stone and Marble.

No. 165,524.

Patented July 13, 1875.



WITNESSES
Frank L. Durand,
By
C. R. Evert.

INVENTOR
Olif Abell
Alexander Mason
Attorney

UNITED STATES PATENT OFFICE.

OLIF ABELL, OF WOLCOTT, VERMONT, ASSIGNOR TO JOSEPH POTTER, OF
WHITEHALL, NEW YORK.

IMPROVEMENT IN MACHINES FOR DRESSING STONE AND MARBLE.

Specification forming part of Letters Patent No. **165,524**, dated July 13, 1875; application filed
June 8, 1875.

To all whom it may concern:

Be it known that I, OLIF ABELL, of Wolcott, in the county of Lamoille and in the State of Vermont, have invented certain new and useful Improvements in Machines for Grinding Stone and Marble; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for grinding stone or marble to a pattern, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of my machine. Fig. 2 is a cross-section of the same.

A represents the frame of my machine, at one end of which is a shaft, B, carrying an emery-wheel, C. In suitable guides within the frame A slides another frame, D, which is held against a pin or stop, *a*, by means of a weight, E, suspended from a cord, *b*, which passes over a pulley and is attached to a post in the sliding frame D. In the end of the frame D, nearest to the emery-wheel C, are two vertical spindles, *d d'*, on a line with each other. The opposite ends of these spindles are provided with suitable teeth *xx*, to hold the stone or marble to be ground between them. On the lower spindle *d* is a cog-wheel, G, which gears with a similar wheel, G', on an upright shaft, *f*, and this shaft may be revolved by any suitable means. In the drawing I have shown the shaft *f* extending up through a slot, *i*, in the frame, and provided

with a crank at its upper end; but the shaft may be revolved by any other convenient means. The upper spindle *d'* is swiveled in a bar, H, which is adjusted up and down by means of a screw, I, as shown, so as to admit of a larger or smaller stone being held by the spindles. On the lower spindle *d* is secured a cam or pattern, J, which bears against the stop *a*. As the shaft *f* is revolved, the spindles *d d'*, stone held thereby, and the pattern, are revolved, and the stone is ground by the emery-wheel in the exact shape of the pattern, as this is held, no matter how irregular, always against the stop by the weight E and cord *b* operating on the frame D. The emery-wheel C may be arranged so as to grind either on the periphery or on the flat surface, as may be deemed most advantageous for the kind of work desired to be done.

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

1. In a machine for grinding stone and marble, the sliding frame D, carrying the pattern and the piece to be ground, in combination with an emery-wheel and a weight, arranged substantially as and for the purposes herein set forth.

2. The combination of the sliding frame D, cord *b*, weight E, spindles *d d'*, gearing G G', pattern J, stop *a*, and emery-wheel C, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of May, 1875.

OLIF ABELL.

Witnesses:

C. L. EVERT,
CHAS. P. WEBSTER.