2 Sheets—Sheet 1.

G. JENNINGS & J. L. ROBELLAZ.

Machine for Sawing Stone.

No. 204,331. Patented May 28, 1878.

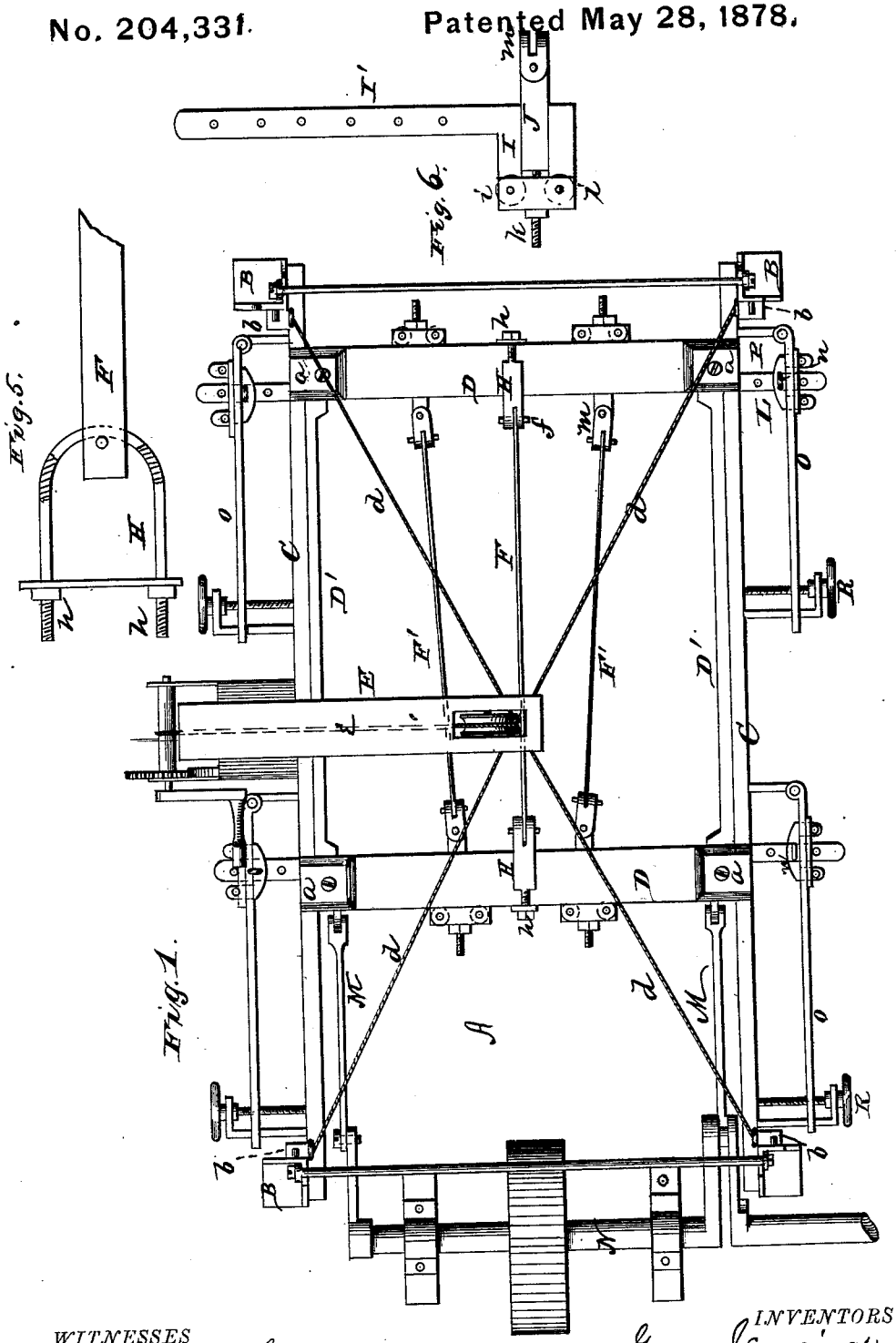

Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES

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2 Sheets—Sheet 2.

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Fig. 2.

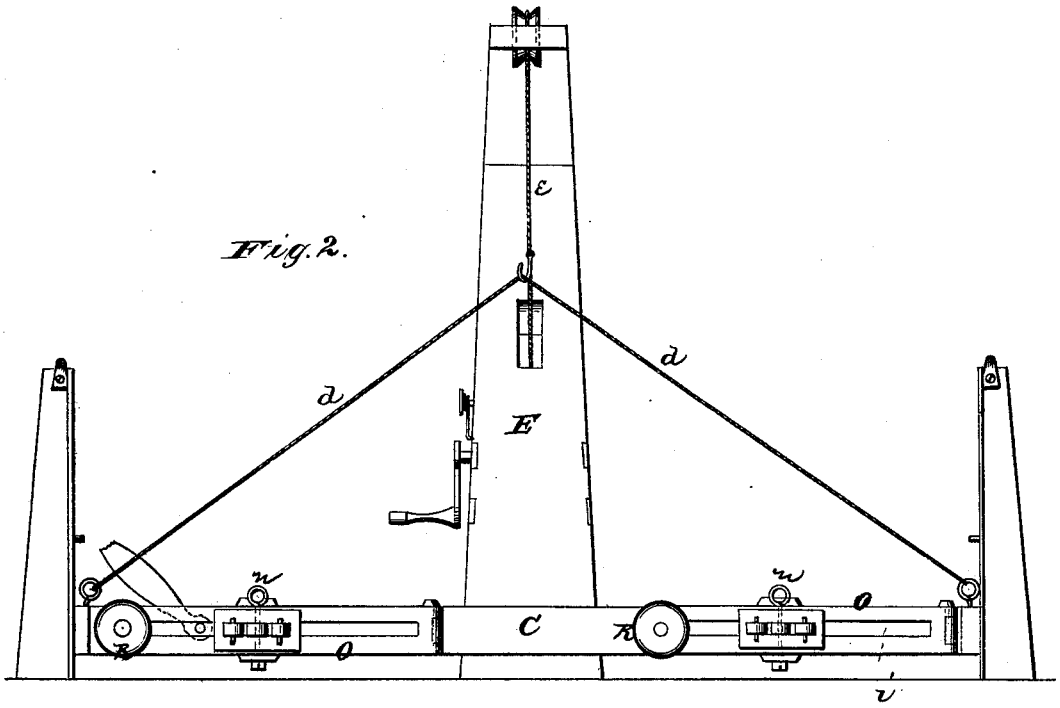


Fig. 4

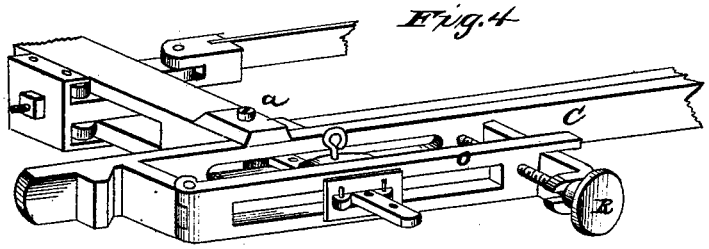
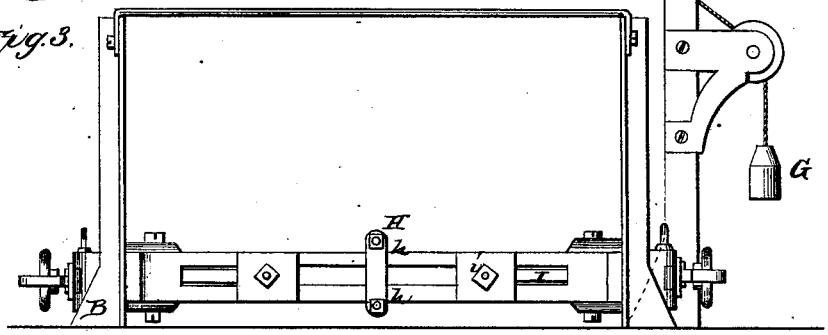


Fig. 3.



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UNITED STATES PATENT OFFICE

GEORGE JENNINGS AND JOHN L. ROBELLAZ, OF NEW ALBANY, INDIANA.

IMPROVEMENT IN MACHINES FOR SAWING STONE.

Specification forming part of Letters Patent No. **204,331**, dated May 28, 1878; application filed April 8, 1878.

To all whom it may concern:

Be it known that we, GEORGE JENNINGS and JOHN L. ROBELLAZ, of New Albany, in the county of Floyd and State of Indiana, have invented certain new and useful Improvements in Sawing Stone; 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 our invention consists in the construction and arrangement of a machine for sawing stone and marble, as will be hereinafter more fully set forth.

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

Figure 1 is a plan view of our machine. Fig. 2 is a side elevation, and Fig. 3 an end view, thereof. Figs. 4, 5, and 6 are detailed views of parts of the machine.

A represents the bed of the machine, at each end of which are two standards, B B, and on the inner sides of these standards are placed two longitudinal side bars, C C, containing between them a slide-frame, D D′. The end pieces D D of this frame have at their ends plates or lugs *a a*, at top and bottom, fitting over the top and bottom edges of the side bars C C, to hold the parts together. The side bars C C have at their ends, on the outer sides, lugs or flanges *b b*, to bear against the standards B B and form guides for the vertical movement thereof.

The side bars C C are, at their ends, by means of chains or cords *d d*, connected with a single chain or cord, *e*, on a derrick, E, erected at the side of the machine for hoisting the frame. To the other end of the chain or cord *e* are attached suitable weights G. This device acts as a feeder of the saw-frame, for the purpose of placing more or less weight on the saws, as the occasion or circumstances may require.

The frame D D′ is moved back and forth by means of pitmen M M from a crank-shaft, N, which may be run by steam, horse, water, or any other suitable power. In the centers, to the end pieces D D, is attached the middle saw F by means of a U-shaped clamp, H, at each end. The center of this clamp is slotted, and the end of the saw inserted through the slot and held by a pin, *f*. Nuts *h h* are then screwed upon the ends of the clamp to tighten the saw.

The heads or end pieces D D of the saw-frame are slotted longitudinally horizontally, and in such slot on each side of the center saw F is inserted a sliding head-block, I, having an arm, I′, extending through the side of the saw-frame at the end, and through a longitudinal slot, *i*, in the side piece C. In this head-block I are mounted friction-rollers *i i*, which bear against the back of the head D.

Through the head-block I is passed a bar, J, adjusted and fastened at the back by a bolt and nut, *k*, as shown in Fig. 6. At the inner end of said bar J is pivoted a clip, *m*, by a vertical joint, and in the corresponding clips in the two opposite head-blocks are secured the ends of the side saws F′.

The arm I′ of each head-block I passes outward through a slide, L, placed in a longitudinally-slotted guide or guide-bar, O, outside of the side bar C. The guide O is hinged at one end to an arm, P, projecting from the side bar C, and the other end adjusted out and in by means of a set-screw, R.

The side saws F′ F′ can be adjusted at any distance from the center saw F, and parallel therewith, or at any angle desired, by moving the head-blocks out or in and fastening the bars I′ in the slides L by means of pins *n*, passed through any one of a series of perforations in the bar.

If the guides O are adjusted parallel with the side bars C, the movement of the side saws is entirely with the saw-frame; but when the guides are adjusted at any angle with the side bars, said side bars obtain also a lateral motion in addition to, and caused by, their reciprocating movement.

The angle motion of the side saws is of great importance in many kinds of work.

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

1. The head-block I, with rollers *i i*, and adjustable bar J, with the saw F′ secured thereto, as herein set forth.

2. The combination of the head-block I with perforated arm I′, slide L, slotted and hinged guide O, and adjusting-screw R, for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 11th day of March, A. D. 1878.

GEORGE JENNINGS.
JOHN L. ROBELLAZ.

Witnesses:
A. SOURDRY,
WILLIAM H. FALEY.