

L. Ward,

2. Sheets. Sheet 1.

Sawing Stone.

No 108307.

Patented Oct. 11. 1870.

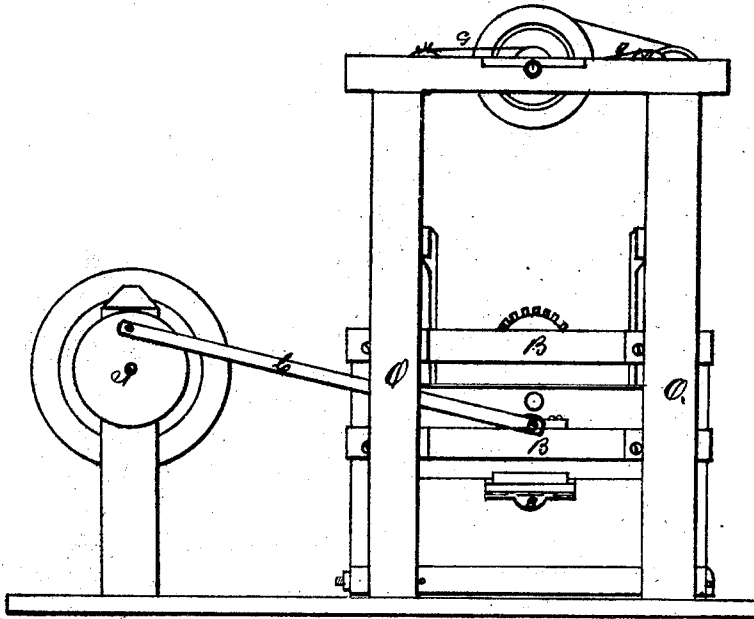


Fig 1.

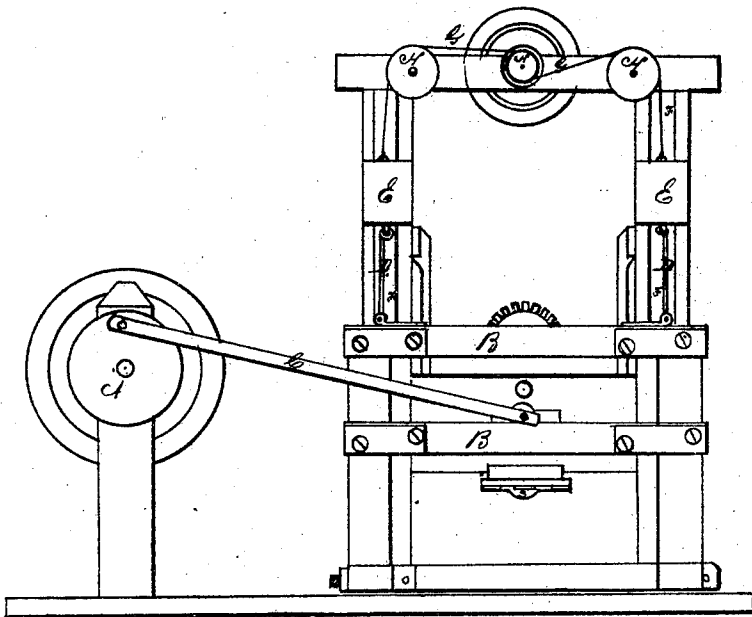


Fig 2.

Witnesses.
J. H. Wright
L. C. Benson

Inventor.
Luther Ward

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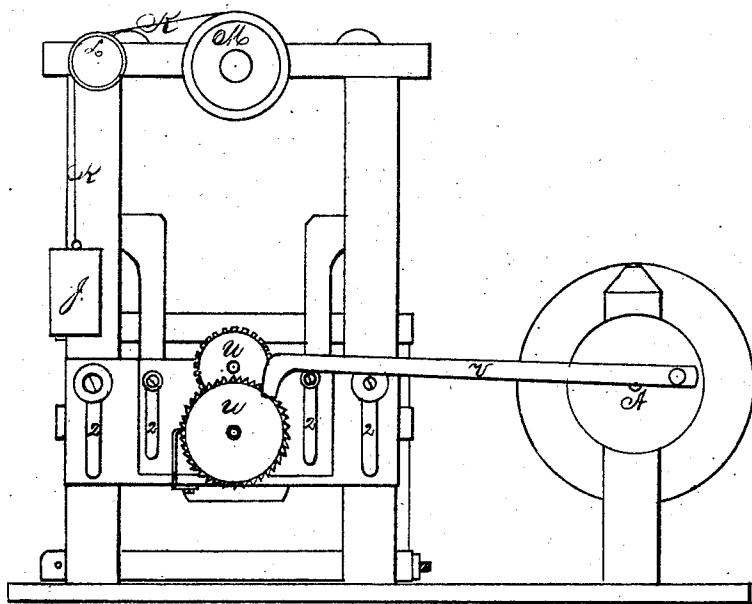


Fig 3.

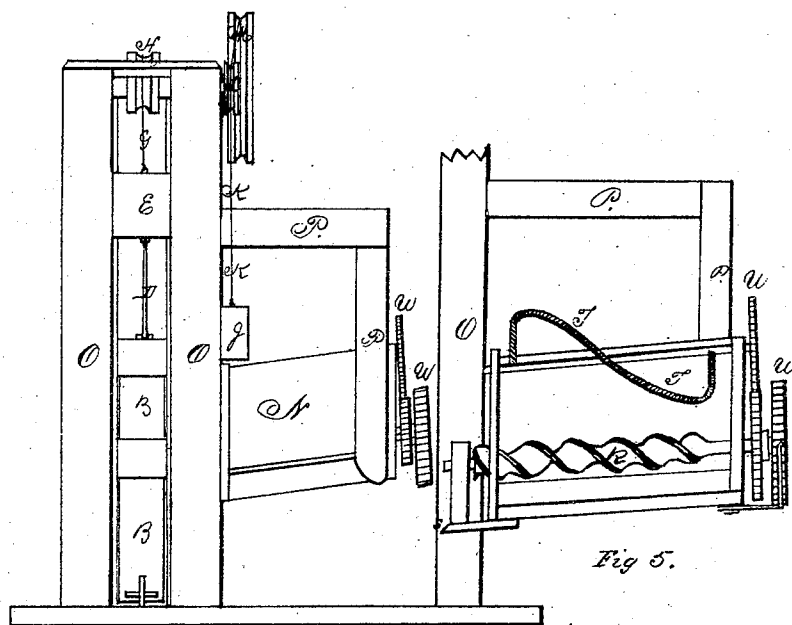


Fig 4.

Fig 5.

Witnesses
J. A. Wright
L. C. Colton

Inventor
Luther Ward

United States Patent Office.

LUTHER WARD, OF TRENTON, NEW JERSEY.

Letters Patent No. 108,307, dated October 11, 1870.

IMPROVEMENT IN MACHINES FOR SAWING STONE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern :

Be it known that I, LUTHER WARD, of the city of Trenton, in the county of Mercer and State of New Jersey, have invented a new and useful Improvement in Machines for Sawing Marble and all kinds of Stone; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, which forms a part of this specification, and to the letters of reference marked thereon.

Figure 1 represents a front elevation.

Figure 2 is a longitudinal bisection.

Figure 3 is a rear elevation, showing the feed-box.

Figure 4 is a side elevation, showing the saw-frame, weights, and rods pendent therefrom.

Figure 5 is a bisection of the feed-box, showing the screw and spiral rod.

Similar letters of reference, where they occur, denote like parts in the drawing.

This invention consists of a machine, having weights attached to the saw-frame by means of swinging rods, which gives the saw a steady drawing motion, keeping it down upon the stone in its proper position for sawing, and preventing it from jumping, by which arrangement the saw can be run at a greater speed than by the old method, combined with a feed-box, for supplying sand to the saw, by means of a screw and spiral rod, moved by the gearing and ratchet attached thereto.

The machine is put in motion by the turning of the shaft A, which moves the saw-frame B B by means of the connecting-rod C.

The saw-frame is attached to the swinging-rods D D, pendent from the weights E E, which weights work up and down on the slides F F.

The weights E E are attached to the cords G G, passing over the pulleys H H, and are fastened to the pulley I.

The saw is raised from the stone by means of the weight J, attached to the cord K K, passing over the pulley L, and attached to the main pulley M.

The feed-box is attached to the frame O O and to the arms P P, and can be adjusted to any height by means of the slots Q Q Q Q.

The box contains sand for the use of the saw, which is fed from the box by means of the screw R, and is thrown out at S.

The spiral rod T T is to stir up the sand, thereby preventing its forming an arch, and throwing it on the screw.

The screw and spiral rod are attached to the gearing U U, which is moved by means of the ratchet V, attached to the main shaft A.

By this arrangement marble and all description of stone can be sawed with less labor and in a shorter time than any other machine now in use.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the swinging rods D and weights E resting thereon, for the purpose of securing a uniform and automatic downward pressure upon the saw, substantially as specified.

2. The adjustable feed-box, when provided with slots Q Q Q Q, screw R, spiral rod T T, and gearing U U, with the ratchet V, when arranged, constructed, and combined substantially as herein shown and represented, for the purpose set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

LUTHER WARD:

Witnesses:

JOS. H. WRIGHT,
L. C. GOSSON.