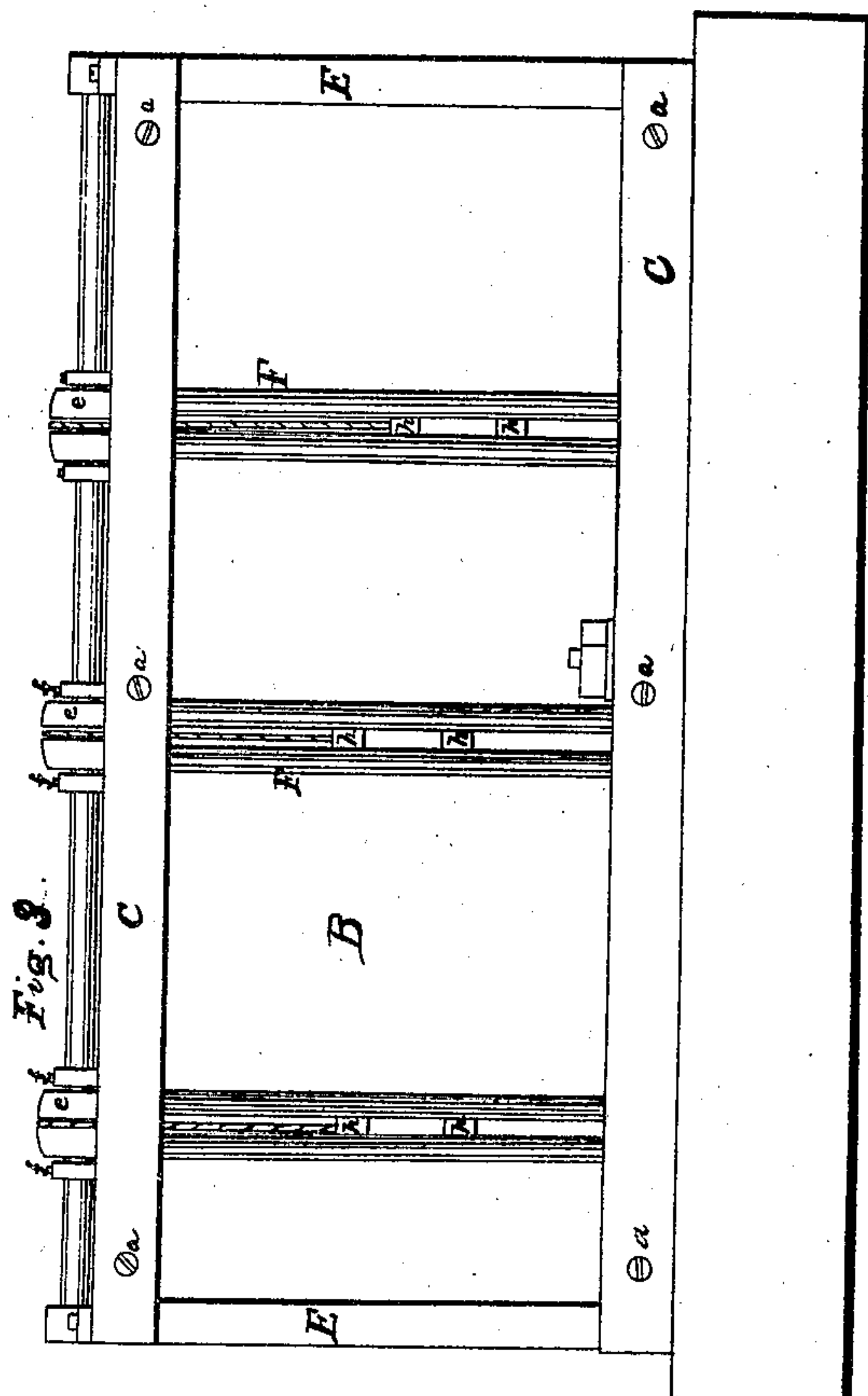
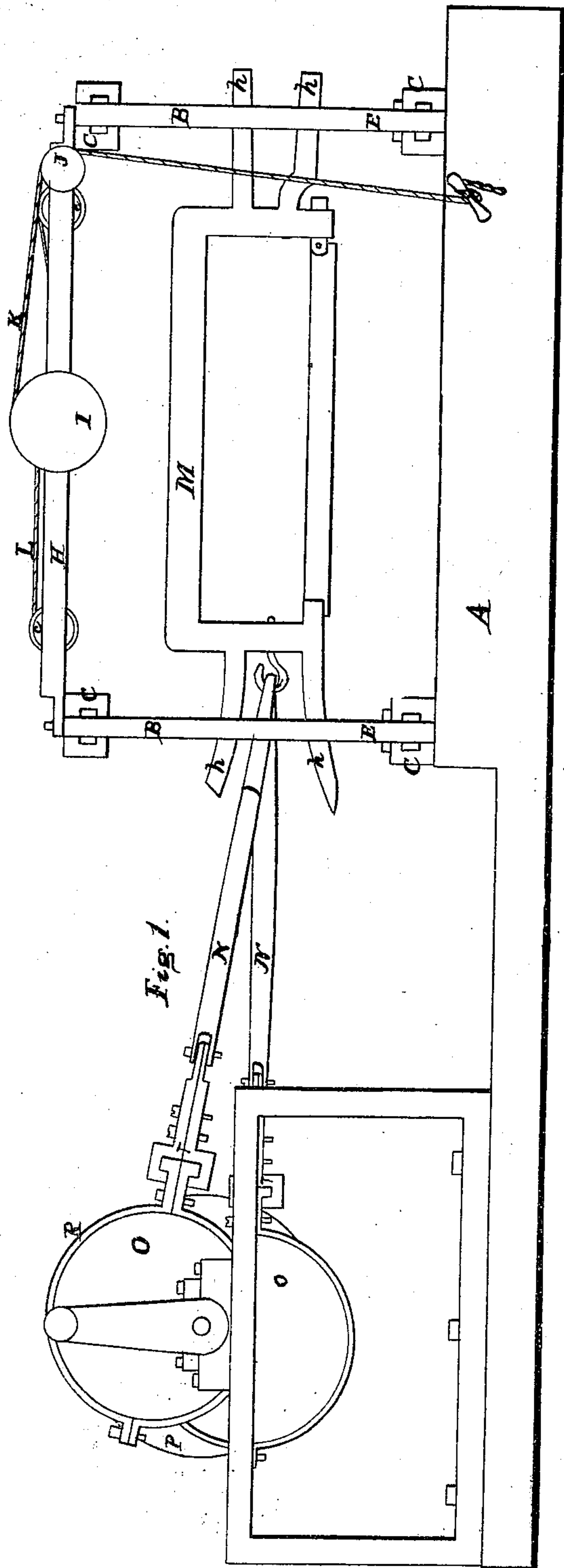


Wheeler & Stevens.

Cutting Marble.

N<sup>o</sup> 72250

Patented Dec. 17, 1867.



Inventors.

Geo. W. Wheeler.

Samuel J. Stevens.

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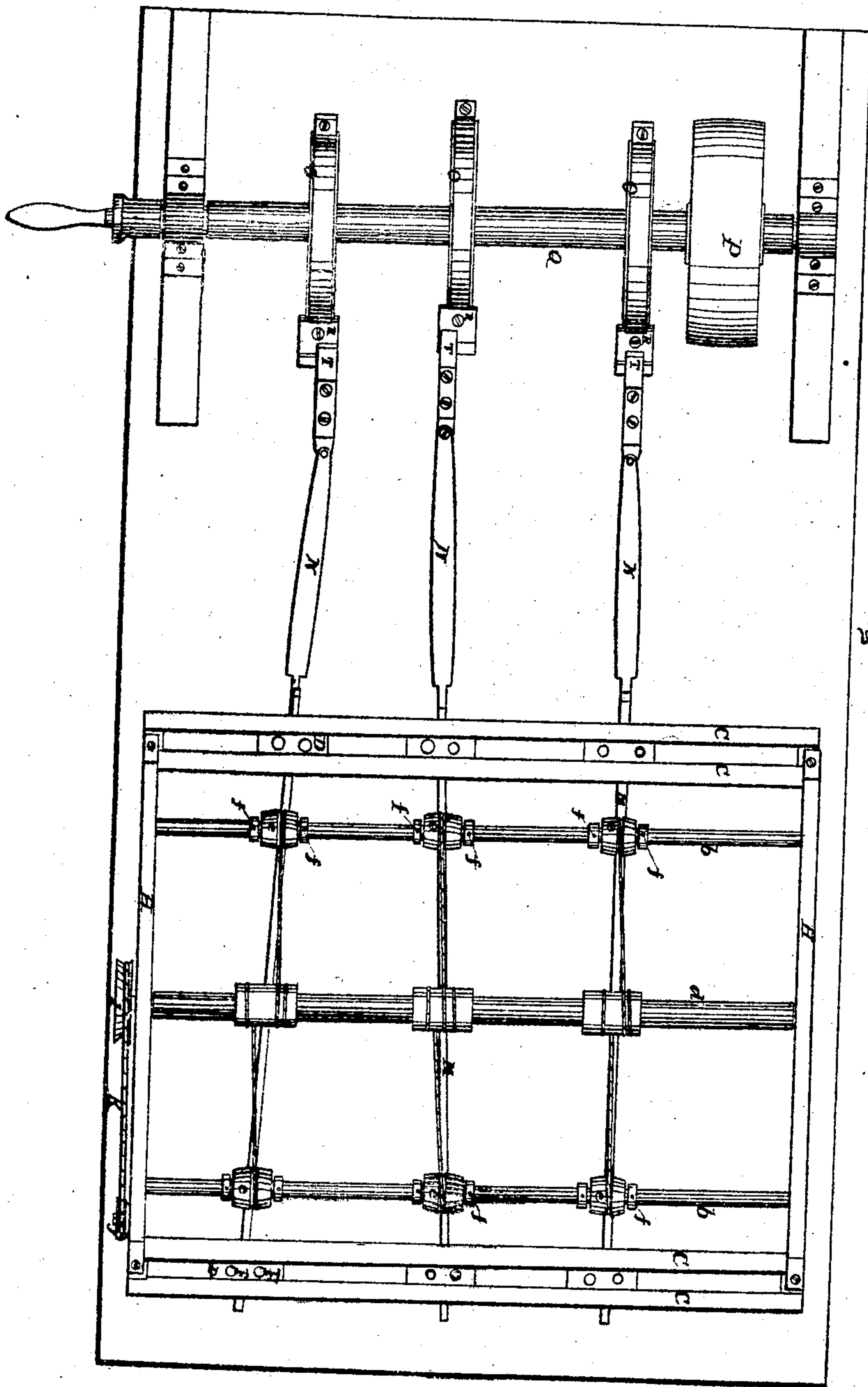


Fig. 2.

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# United States Patent Office.

GEORGE W. WHEELER, OF NEW FAIRFIELD, AND HIRAM I. STEVENS, OF  
BETHEL, CONNECTICUT.

*Letters Patent No. 72,250, dated December 17, 1867.*

## IMPROVED MARBLE-CUTTING MACHINE.

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

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, GEORGE W. WHEELER, of New Fairfield, and HIRAM I. STEVENS, of Bethel, in the county of Fairfield, and State of Connecticut, have invented a new and useful Improvement in Marble-Cutting Machines; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation,

Figure 2 a plan, and

Figure 3 a rear view of the vertical frame of our machine.

Our invention is an improved manner of constructing machines for sawing marble and other stones, so that blocks may be made tapering in form.

Our machine is constructed as follows: A is a platform made of timber, of strength to sustain heavy blocks of stone while being sawn, and is fitted with the common devices for holding the same in position when their weight is not sufficient to keep them stationary. At suitable places on the platform, and across it, are placed the vertical frames B B, which contain the guides of the saw-frames M M. These frames B B are made as follows, and of either wood or iron, though we prefer the latter: The lower and upper portions C C are made of two pieces, long enough to extend across the platform, and of such vertical section as represented in fig. 1, at C, each piece having a groove cut on its inner face from end to end. They are placed sufficiently near to receive and retain the slide D, and at each end a small portion of the inner faces is cut away to form a seat for the posts E E. After placing the slides D in the groove formed by these two pieces, the ends of the posts E are placed in their respective seats, and the frame is fastened either by bolts or screws. The slides in the lower portion of the frame are joined to their opposite slides in the upper part, each pair by two rolling guides, F F, at such distances apart as to receive between them and allow to move freely the saw-frames M M, and when it is desired to move these slides in the grooves which retain them, the screws *a a* may be loosened, which will allow the two pieces forming C C to separate, when the slides can be placed at the required points, and the whole tightened so that they will be retained there. The frames B B may then be set up across the platform A, at proper distances apart for the saws to play between, where they are firmly secured by bolts passing up through the platform between the two parts *c c*, having screw-nuts on the upper ends, or by any other suitable devices. To the top of the posts E, at each end of the frames B B, are secured, by a screw-bolt, the beams H H, connecting the frames together. Between these beams H H, and connecting them together near the ends, are the rods *b b*, whose ends are secured so that they cannot turn, and midway between them is the bar *d*. The rods *b b* have upon them guides *e e*, one for each saw-frame, which are capable of adjustment laterally, and are set at any desired points by the set-screws *f f*. The bar *d* is square, with cylindrical ends, which rest in corresponding holes in the beams H H, and one end projects beyond the beam and has secured to it the pulley I. On this bar *d* are the slides *g g*, one for each saw-frame, which are free to move either way, as may be required, and to these slides are fastened the ends of the two cords or chains L L, which pass in opposite directions over the guides *e e*, and then downward to the ends of the saw-frames. To the pulley I is also attached a cord or chain, K, which passes backwards over the pulley J, which is secured near the rear end of the beam H, and downward to the platform. In order to raise the saw-frames up clear of the stone, the attendant pulls downward on the rope K, which turns the bar *d*, and the slides upon it, thereby winding up the ropes L L, and raising the saw-frames to any desired height.

The saw-frames M are made of iron, and of the form shown in the drawings, having at each end two projecting arms, *h h*, which move between the rolling guides F F, and keep the saw always in the same vertical plane. These saw-frames are attached by the connecting-rods N N to the eccentrics O O on the shaft Q, which is turned by a pulley-band on the drum P, or by gearing of some other description. The eccentric-strap R is constructed with a T-head projecting from one side, and this head is made somewhat broader than the width of the strap, and furnishes means of an adjustable connection with the connecting-rod, which is sometimes necessary to bring the connecting-rod and saw-frame more nearly in a straight line, when the saw is cutting on a

line oblique to the axis of the main shaft. Cranks may be formed in the shaft, to be used instead of eccentrics, if desired, the operation being the same, and not requiring any change in the construction of the other parts.

Having thus described our invention, its construction and mode of operation, what we claim as new, is—

1. The frame B, constructed as described, so that the roller-guides may be adjusted as described.
2. The adjustable coupling T, as set forth.

GEO. W. WHEELER, [L. S.]  
HIRAM I. STEVENS. [L. S.]

Witnesses:

PETER STARR,  
GEORGE R. MORGAN.