

C. H. G. Pease,

Sawing Stone.

No. 87,701.

Patented Mar. 9, 1869.

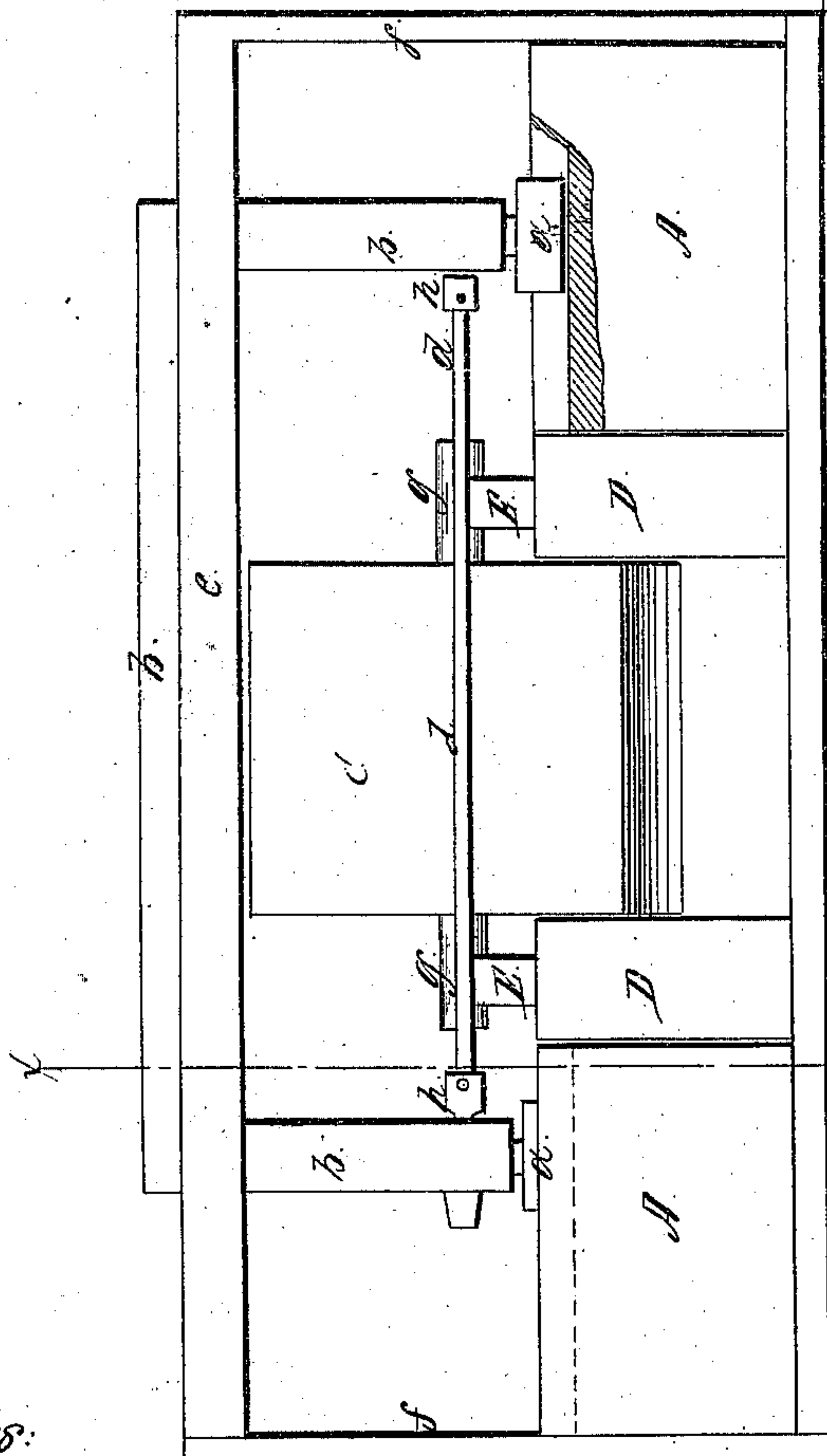
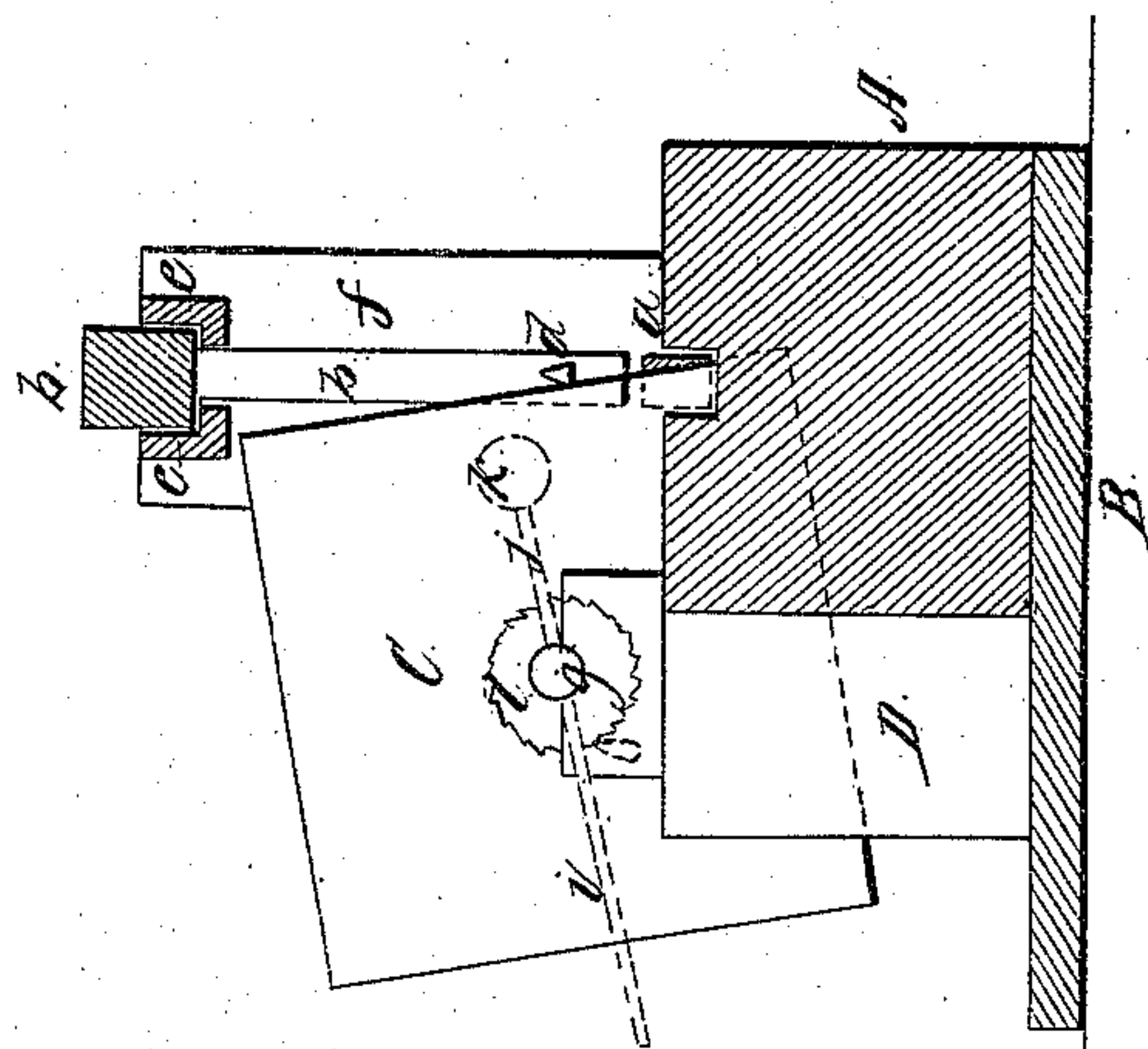


Fig. 3.



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C. H. G. PEASE, OF DANBURY, CONNECTICUT.

Letters Patent No. 87,701, dated March 9, 1869.

IMPROVED MARBLE-SAWING 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 I, C. H. G. PEASE, of Danbury, in the county of Fairfield, and State of Connecticut, have invented new and useful Improvements in Marble-Sawing Machines; 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 front view of my invention.

Figure 2 is a cross-section of the same, through the line *x x*, fig. 1.

Figure 3 is an enlarged cross-section of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to accomplish the sawing of marble and other stone in circular blocks, with a simple and effective apparatus.

It consists in suspending the block to be sawn in trunnions before a horizontal reciprocating saw, the construction and operation of which are herein fully set forth.

In the accompanying drawings—

O is the block suspended upon trunnions *g g*, which are firmly secured in sockets or holes in the block, by melted lead or sulphur.

The trunnions rest on pillow-blocks *E E*, which latter are brought to the proper height by means of foundation-blocks *D D*.

The saw *d* may be of the usual kind employed in sawing marble, but is strained across the lower part of the frame *b b b*, which latter plays to and fro, with a reciprocating motion, in the guides *e e*, supported by the uprights *f f*, from the base-blocks *A A*, which latter are grooved for the reception of the feet *a a*, on the lower ends of the saw-frame, as shown.

By means of the grooves and guides, the saw-frame is guided in its to-and-fro motion, which motion is imparted to it by any connecting-rod or pitman, operated by a crank, eccentric, or cam.

The block is brought in contact with the saw by moving up the foundation-blocks *D* to the proper position.

The trunnions may be provided with a lever-handle, *i*, for turning the block as the saw cuts it, and an arm, *j*, and weight, *k*, to balance the block, when one or more corners are sawn off, thus bringing the trunnions out of the line of the centre of gravity.

A ratchet-wheel, *l*, with a pawl, may be affixed on one of the trunnions, to keep the block from swinging over, when a corner is cut off from the block.

These devices for controlling the block in the trunnions, may be variously modified, and are easily devised by any person skilled in mechanism, and I have not attempted to elaborate or perfect this portion of the apparatus.

One of the blocks *D* can be moved forward of the other, thus bringing the block *O* obliquely to the saw, whereby the block will be sawn in a conical form, of more or less acuteness, according to the position of the block with respect to the saw.

I am aware that blocks have been hung in a chair provided with trunnions, and sawn in a circular form, by a belt-saw, (see patent granted to Norman and McLean, No. 21,622,) but that invention necessitated the handling of the block to get it into the frame or carriage, which latter is susceptible of being rotated.

This mechanism is, moreover, complicated, and liable to derangement, and is not capable of cutting the block in conical form, as is my invention.

Although any narrow marble-saw, as a wire, may be used with my invention, I prefer to use a rod or wire having a triangular section, as shown in fig. 3, and which I desire especially to claim, as it operates more easily and effectively, in sawing curves in marble, than the saws heretofore used for this purpose, and it may be employed in any machine for sawing marble in curves, as advantageously as in the one herein set forth.

It is arranged with its base downward, as shown in fig. 3.

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

1. The devices herein described, for sawing marble in cylindrical or conical forms, constructed, arranged, and operating substantially as and for the purpose set forth and shown.

2. The rod or wire saw, having a triangular cross-section, combined with the machine herein described, for sawing marble in curves, substantially as and for the purpose specified.

The above specification of my invention signed by me, this 20th day of April, 1868.

C. H. G. PEASE.

Witnesses:

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ALEX. F. ROBERTS.