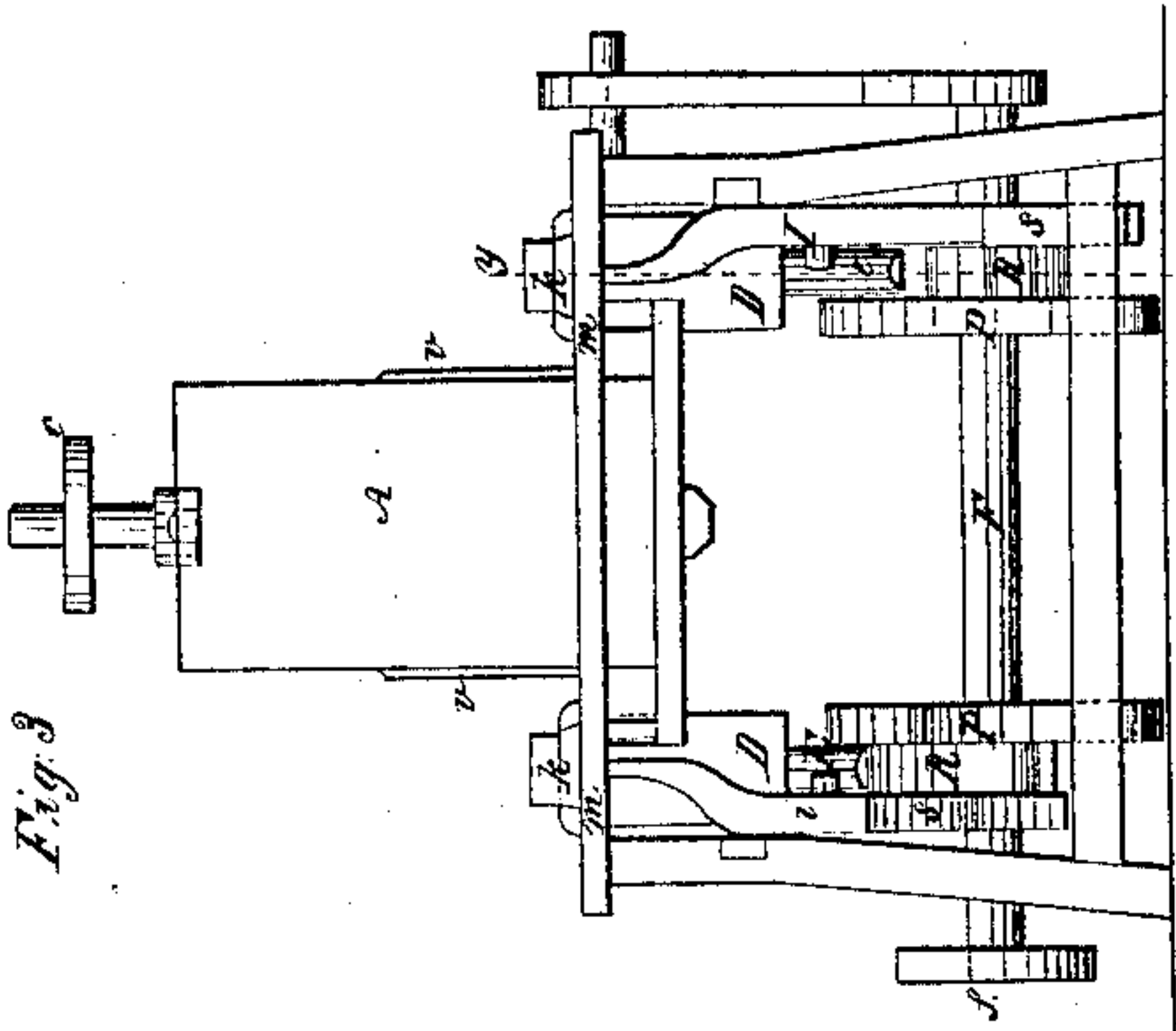


*R. Wolff,*

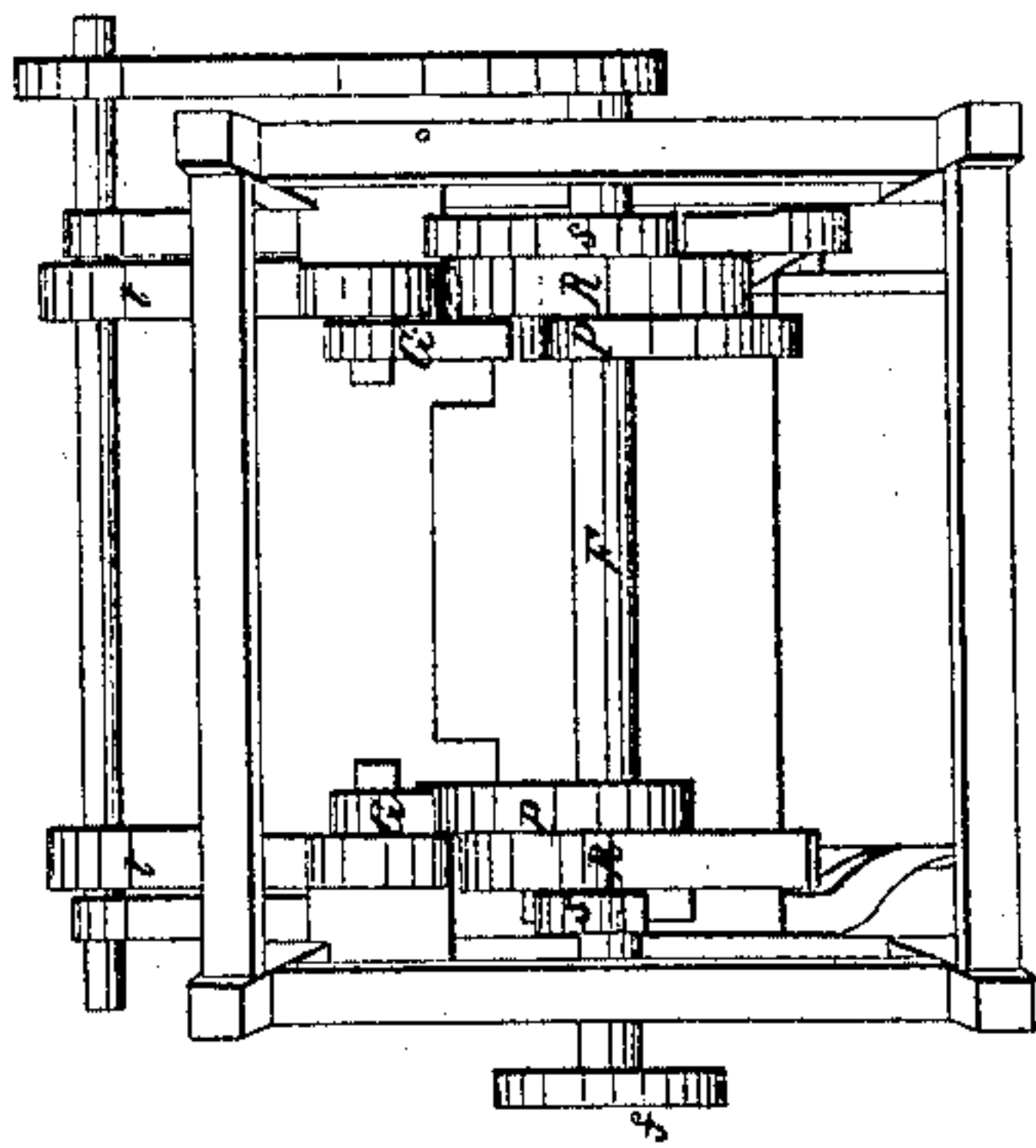
*Brick Machine.*

*N<sup>o</sup> 61,298.*

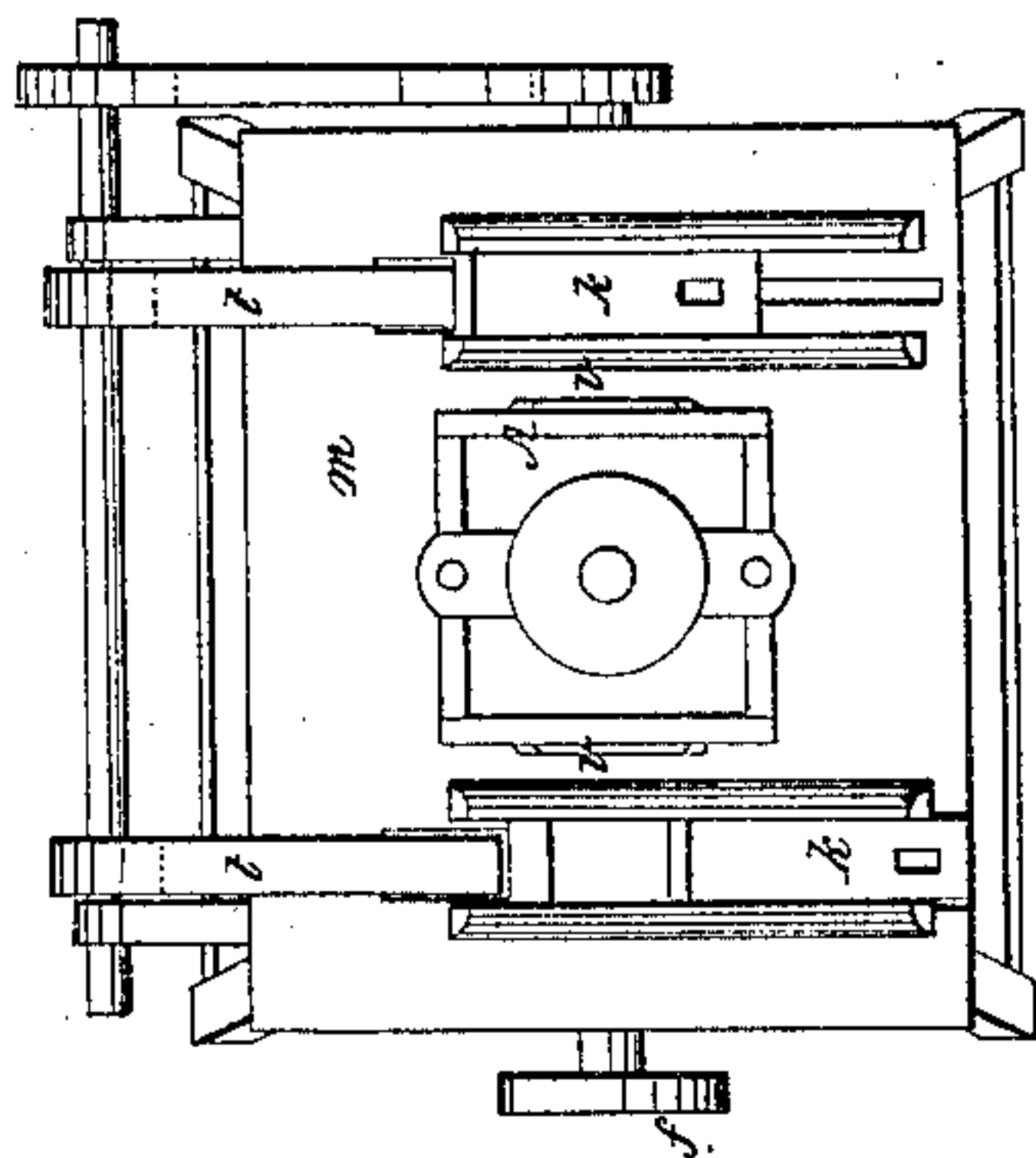
*Patented Jan. 15, 1867.*



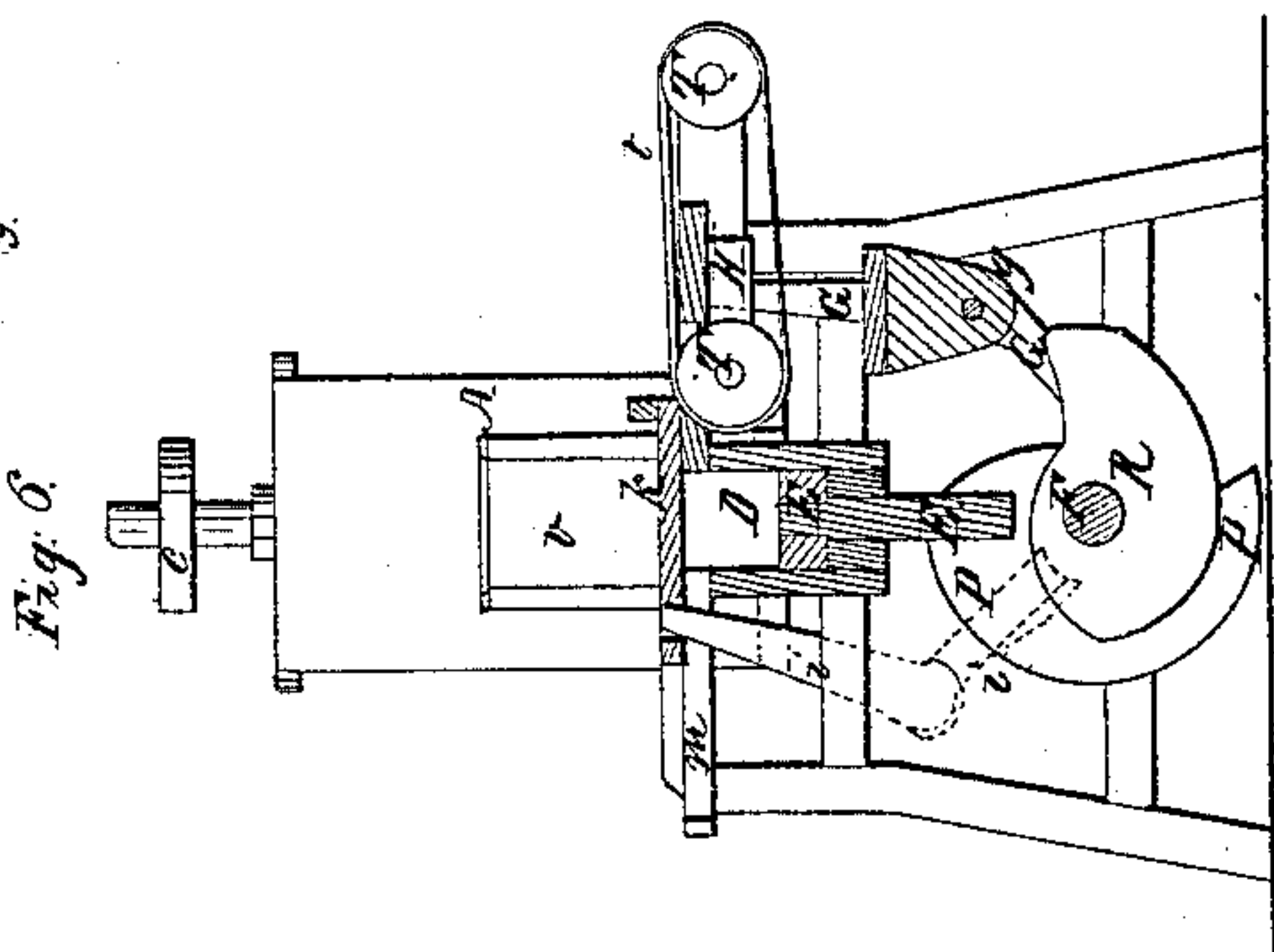
*Fig. 3*



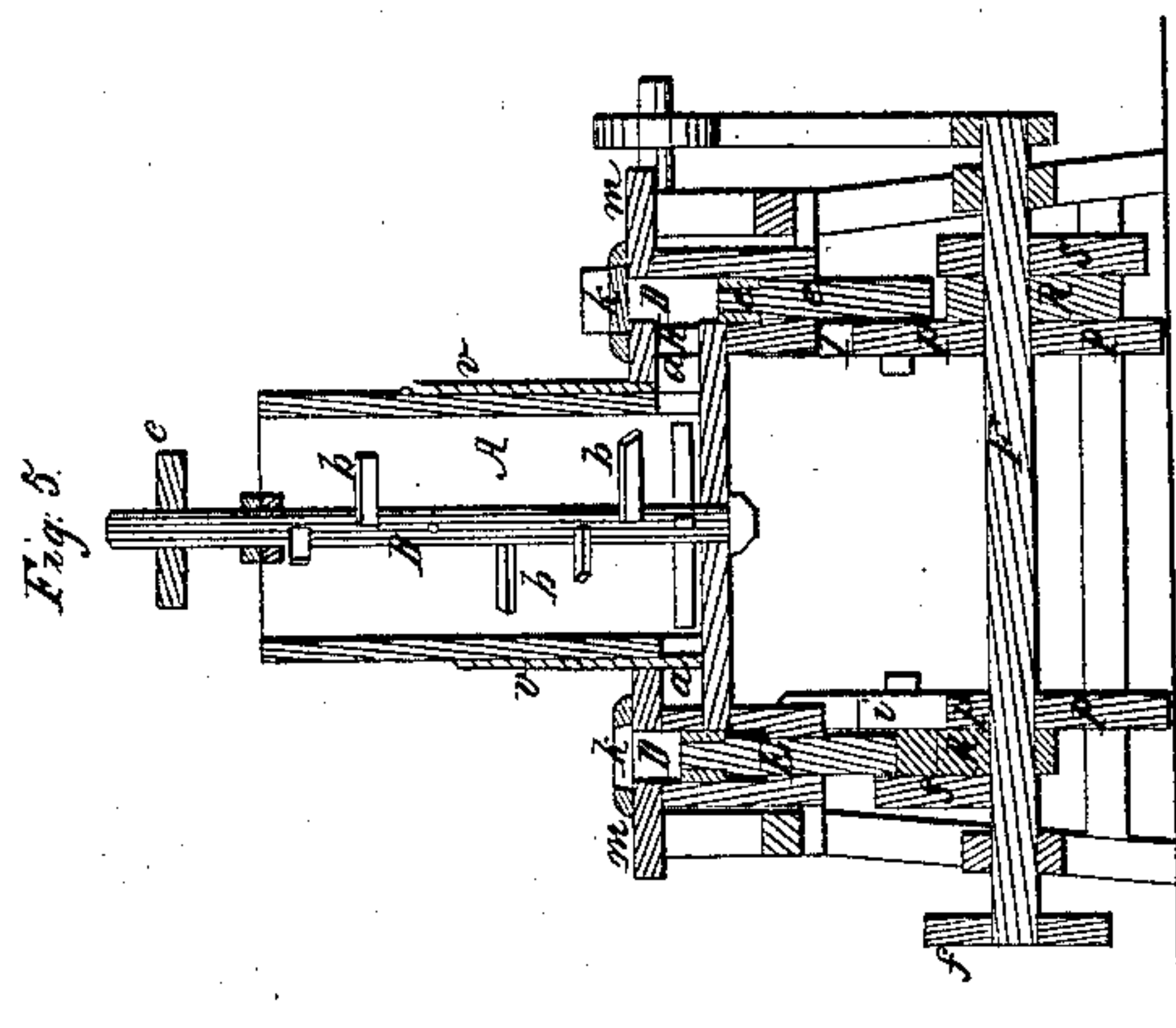
*Fig. 2*



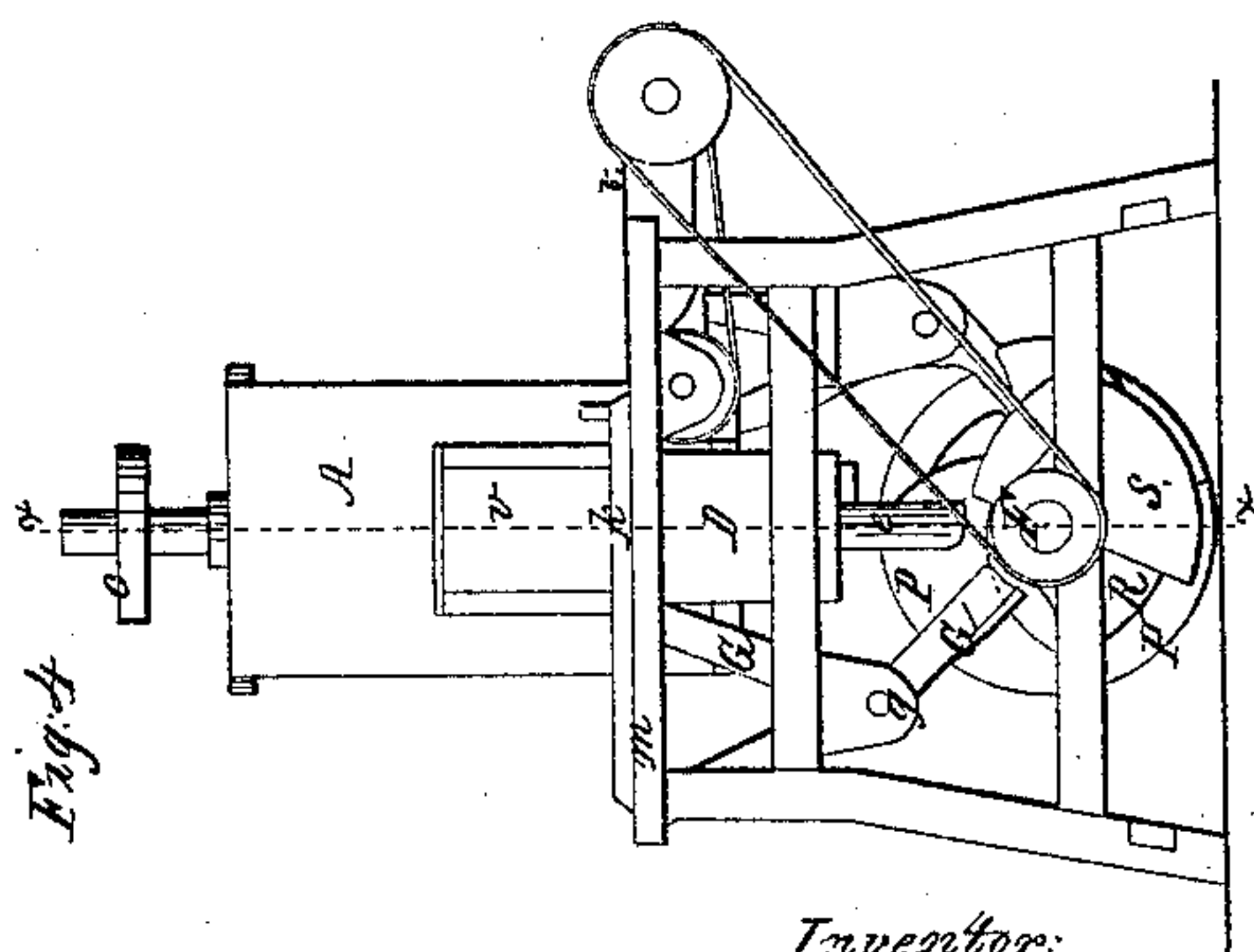
*Fig. 1*



*Fig. 6*



*Fig. 5*



*Fig. 4*

*Witnesses:*

*A. C. Vee*

*C. Atlanta*

*Inventor:*

*Robert Wolff*

# United States Patent Office.

ROBERT WOLFF, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND JOHN H. THIELING.

*Letters Patent No. 61,298, dated January 15, 1867.*

## IMPROVED BRICK 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, ROBERT WOLFF, of the city, county, and State of New York, have invented a new and useful improvement in Brick-Making Machines; and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, of which—

Figure 1 is a plan of my invention.

Figure 2 is a bottom view.

Figure 3 is a side elevation.

Figure 4 is an end elevation.

Figure 5 is a vertical longitudinal section, taken in the line *x x*, fig. 4.

Figure 6 is a vertical cross-section, taken in the line *y y*, fig. 3.

Similar letters of reference indicate like parts.

This invention relates to new and useful improvements in brick machines, whereby a cheap, simple, and efficient machine is produced, as hereinafter explained.

A, in the accompanying drawings, is the mud box; B *b b* (fig. 5) is the kneading or grinding-shaft or knives. This shaft is driven by a pulley, C, or by other suitable means. The mud box A is mounted on a framework or table, *m*, and has, on two opposite sides, at its bottom, pockets or moulding-chambers D D, (figs. 5 and 6.) The throats *a* of these chambers, connecting the chambers with the mud box, are closed at each moulding by slides H, (figs. 5 and 6,) each of these slides being operated by a lever, G, (figs. 4 and 6,) which is hung on a pivot, *g*, at its centre, and is actuated by a cam, P *p*, (fig. 4,) on the shaft F. The top of each moulding-chamber D has a sliding cover, *k*, and these covers are operated by elbow-levers *i* and I, (figs. 3 and 6,) which receive motion from cams S S (figs. 4 and 5) on the shaft F. The bottoms of the moulding-pockets or chambers D D are formed by plungers E and *e*, (figs. 5 and 6,) which slide vertically therein, and are operated by cams R R on the shaft F. The said shaft F is driven by a pulley, *f*, or by any suitable means. After the levers I *i* G G have been acted upon by their cams, their return or backward strokes are made by means of springs. Thus the machine has two sets of moulding-chambers and operating appliances, and, if desired, either set may be shut off from moulding by a vertical hand-slide, *v*, (figs. 5 and 6,) which closes the throat leading from the mud box to its moulding-pocket, and thus shuts off the supply of clay and makes that side of the machine inoperative. Or, both of these slides *v* may be closed, when the machine is first started, until the clay has been properly kneaded or tempered; when one or both are raised, as desired, and the moulding allowed to proceed.

Its operation is as follows: By the time the clay in the mud box has reached its bottom it is suitably tempered, and one of the slides H being withdrawn the pocket of that side is filled by the pressure of the knives *b*, and the throat *a* of the pocket is immediately closed by means of its sliding-door H, which is operated by the lever G and cam P; the cover *k* of this pocket being also closed, the plunger E or *e* is then driven up forcibly by its cam R, and the brick is formed and pressed to any desired extent. The working face of the cam R is of such form that, after the brick has been pressed sufficiently, the cam then, for a moment, remains neutral, while the corner of the cam S (of this side or set) strikes upon the lever I or *i* and thereby slides the cover *k* back from over the pocket. By the time that the cover *k* has been thrown off, the neutral part of cam R has passed the plunger; and the cam R again begins to act, and the plunger E is forced up until the brick is thrown out of the pocket D on to the table *m*, when the sliding-cover *k* is thrown forward and, catching the brick, pushes it forward on to a conveying-belt, *t*, running over pulleys T T, (fig. 6,) and the brick is conveyed off out of the way. This description of the operation of one side or set of the moulding apparatus will answer for both sides, as their construction and action are the same; but the two sets act alternately, so that the work is distributed more evenly on the moving power than if the plungers made their pressing strokes simultaneously. The moulding-pockets D and plungers E may be so modified in their construction that more than one brick may be moulded and delivered at a single stroke of either plunger; however, I consider the present method as the more preferable. These machines may be constructed with a single set of moulding apparatus, as shown upon one side, or the apparatus may be duplicated, as shown. Furthermore, it is well known to those



conversant with the art of making fire or pressed brick, that they are first moulded by hand or otherwise, and then dried, and are then placed in a machine and submitted to pressure, consuming much time and labor, when, by my machine, the operation of moulding and pressing is performed at a single operation; and, the moisture being sufficiently pressed out, the bricks are ready for the kiln as they are delivered from the machine.

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

1. I claim, in connection with the mud box A, and grinding-shaft B b, the moulding-pocket D, sliding-cover k, throat-slide H, plunger E, levers G I, and cams P R S, all constructed, arranged, and operating substantially as and for the purpose herein described.

2. I claim a duplication of the above in connection with a single mud box A, and grinding device B b b, substantially in the manner and for the purpose hereinbefore described.

ROBERT WOLFF.

Witnesses:

A. NEILL,  
E. PLANTA.