

H. WOODCOCK.

PUG MILL.

No. 388,167.

Patented Aug. 21, 1888.

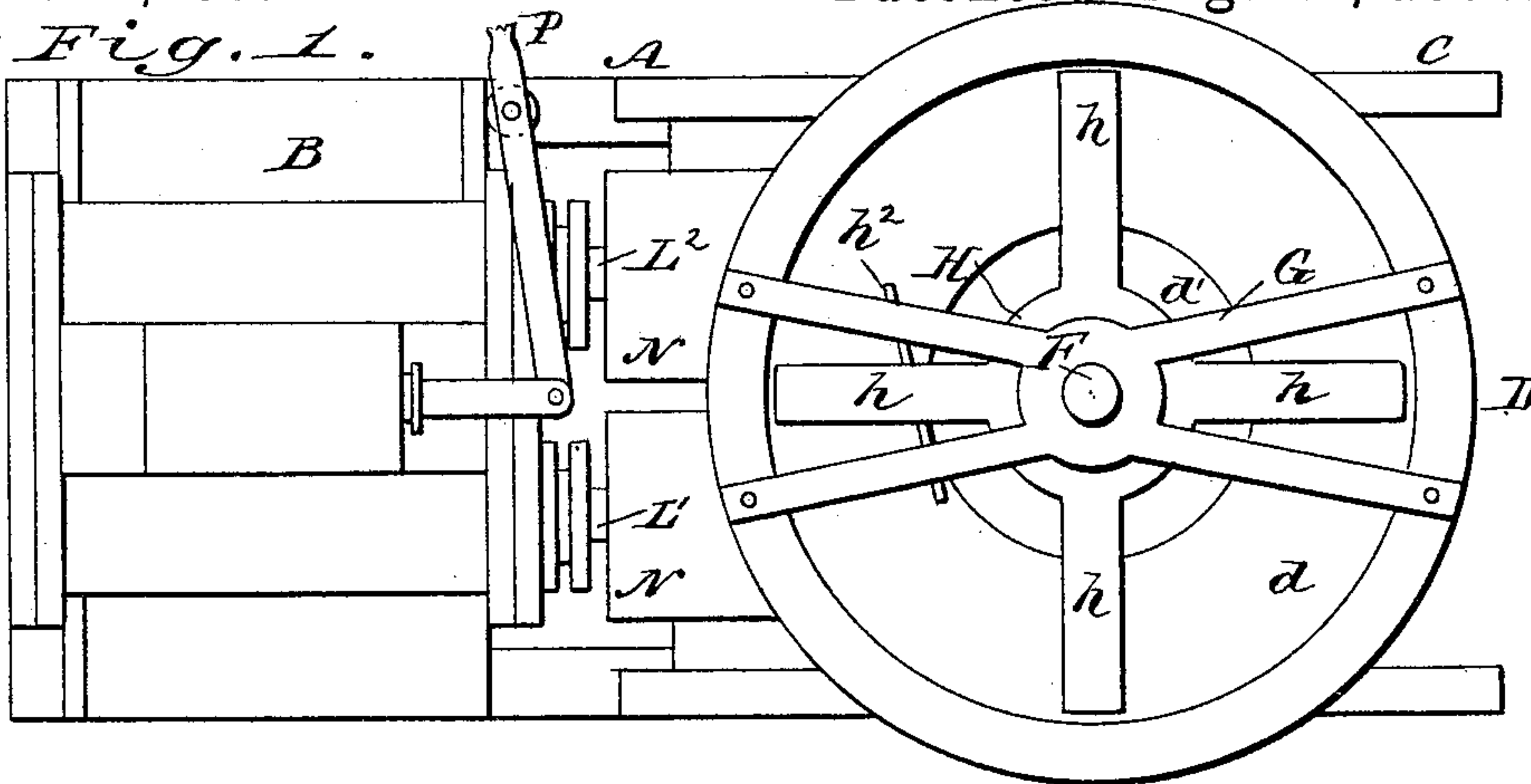
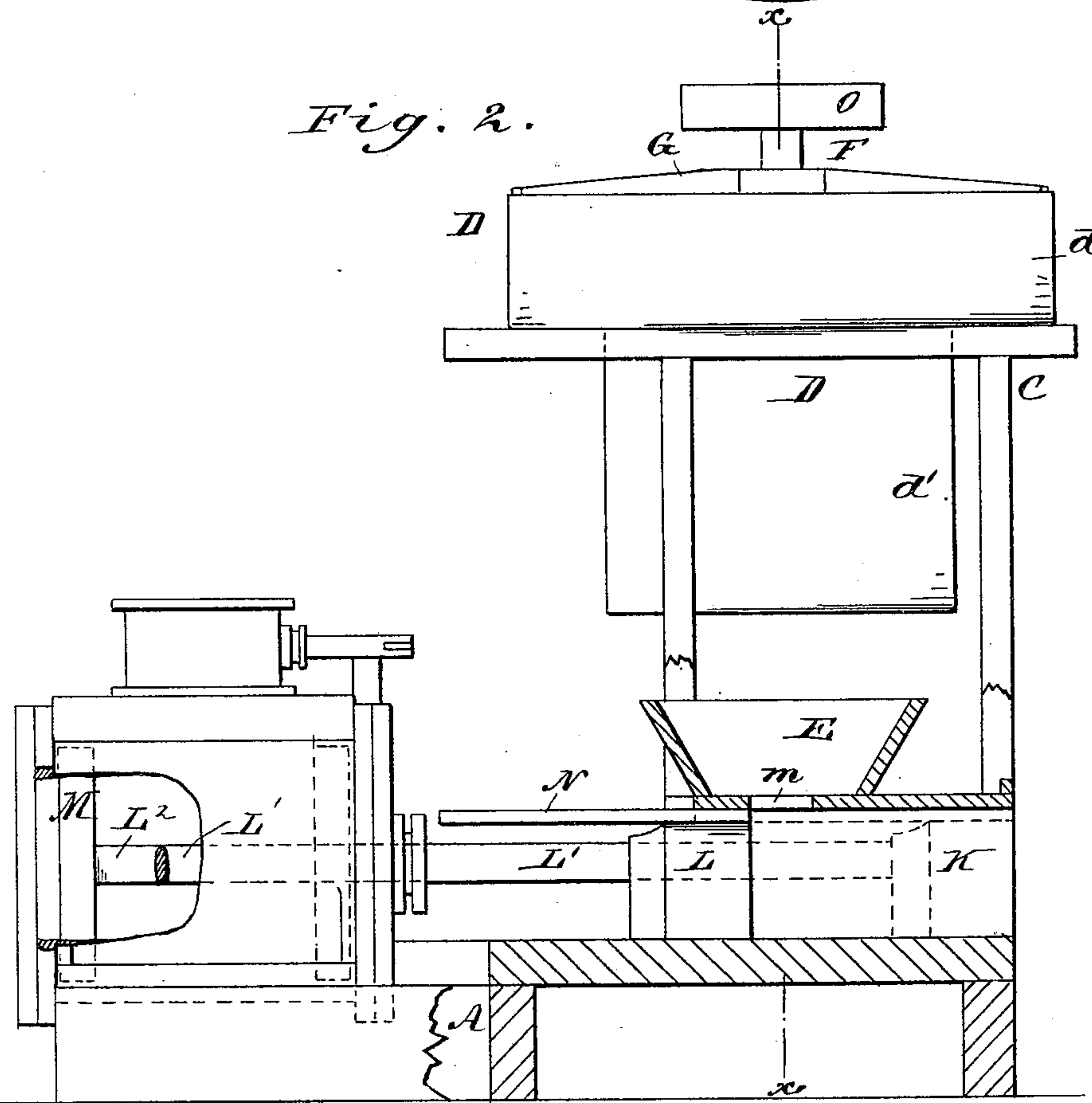


Fig. 2.



WITNESSES:

John W. Deamer
C. Sedgwick

INVENTOR:

H. Woodcock
BY *Munn & Co*

ATTORNEYS.

(No Model.)

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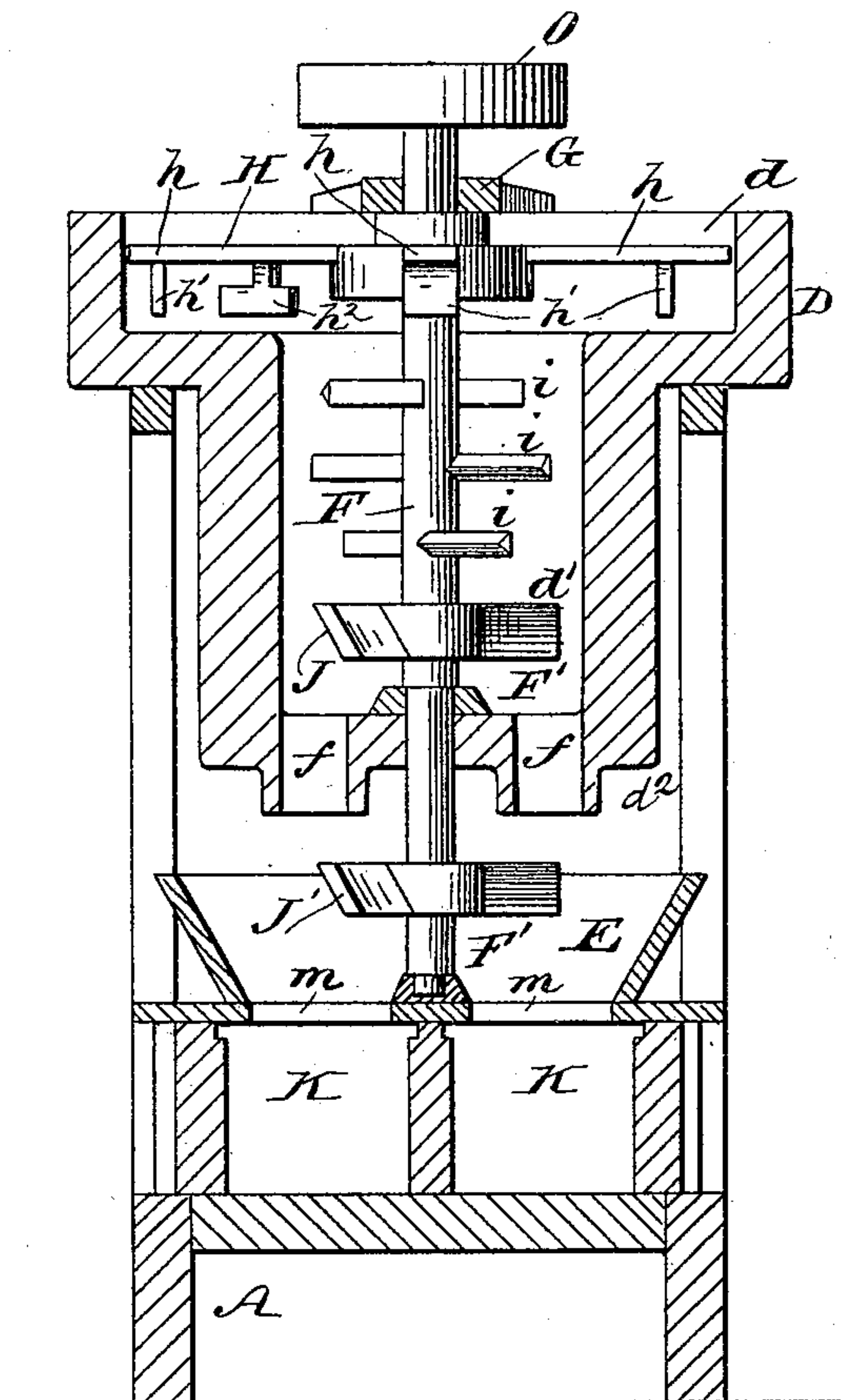
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Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY WOODCOCK, OF PERTH AMBOY, NEW JERSEY.

PUG-MILL.

SPECIFICATION forming part of Letters Patent No. 388,167, dated August 21, 1888.

Application filed February 21, 1888. Serial No. 264,803. (No model.)

To all whom it may concern:

Be it known that I, HENRY WOODCOCK, of Perth Amboy, in the county of Middlesex and State of New Jersey, have invented a new and Improved Tempering-Pan, Pug-Mill, and Brick-Machine Combined, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my invention. Fig. 2 is a broken side elevation of the same, and Fig. 3 is a sectional elevation taken on the line *xx* of Fig. 2.

The invention will first be described in connection with the drawings and then pointed out in the claims.

A represents the base of the machine, on which is mounted the steam-cylinder B and superstructure C, which latter supports the receptacle D, in which the clay is worked and tempered. This receptacle is formed at the top with a circular pan, *d*, from the bottom of which projects the cylindrical mill *d'*, in the bottom *d''* of which is formed the two passages *f f*, through which the clay drops into the hopper E below. In the center of the pan *d* and mill *d'*, and also in the center of the hopper E, is the vertical shaft F, stepped at its lower end upon the central block, *F'*, in the said hopper E. The upper end of the said shaft F is journaled in the cross bar or plate G, secured to the upper edges of the pan *d*, and to the said shaft, near the said plate G, is secured the spider-frame H, the arms *h* of which are provided with the blades *h'*, and one of said arms is provided with the diagonally arranged plate *h''*, which serves to scrape the clay from the pan *d* into the mill *d'*. In said mill the shaft F is provided with the arms *i i* for agitating and working the clay, and below the said arm is secured to the shaft the propeller J for forcing the clay through the passages *f* to the

hopper E below. In this hopper the clay is further agitated and worked by the second propeller J', which also forces the clay through the passages *m* in the bottom of the hopper into the boxes K K.

In each box K is placed a follower, L, connected to the same piston-head M in cylinder B by piston-rods *L' L''*, so that both are operated at the same time by a single steam-cylinder. Each follower L is provided with a plate, N, at its upper edge to close the openings *m* at the bottom of the hopper E when the followers are thrust forward to the position shown in dotted lines in Fig. 2. The followers force the tempered clay into the mold-box of a brick-machine (not shown) connected to the exit ends of the said boxes K K.

The shaft F is to be revolved by suitable gearing or by a pulley, O, so that the clay will be first worked in the pan *d*, and then in the mill *d'*, and finally in the lower hopper, E. P is the lever for operating the slide-valve of the steam cylinder B.

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

1. In a pug-mill, the receptacle D, formed with the pan *d* and mill *d'*, below the same and of less diameter than the pan, in combination with the shaft F, arms *h*, and blades *h'*, to work in the pan, the arms *i i*, to work in the mill, and the propeller J, attached to the shaft below the arms *i i* for forcing the clay out of the mill, substantially as described.

2. The receptacle D, formed with pan *d* and mill *d'*, and the hopper E and receptacle K K, in combination with the shaft F, provided with arms *h h' i*, and propeller J in the receptacle D, and the propeller J', arranged to work in the hopper E, substantially as described.

HENRY WOODCOCK.

Witnesses:

C. C. HOMMANN,
W. B. BARTON.