

W. A. Horrell, Brick Machine.

N^o 46,188.

Fig: 1

Patented Jan. 31, 1865.

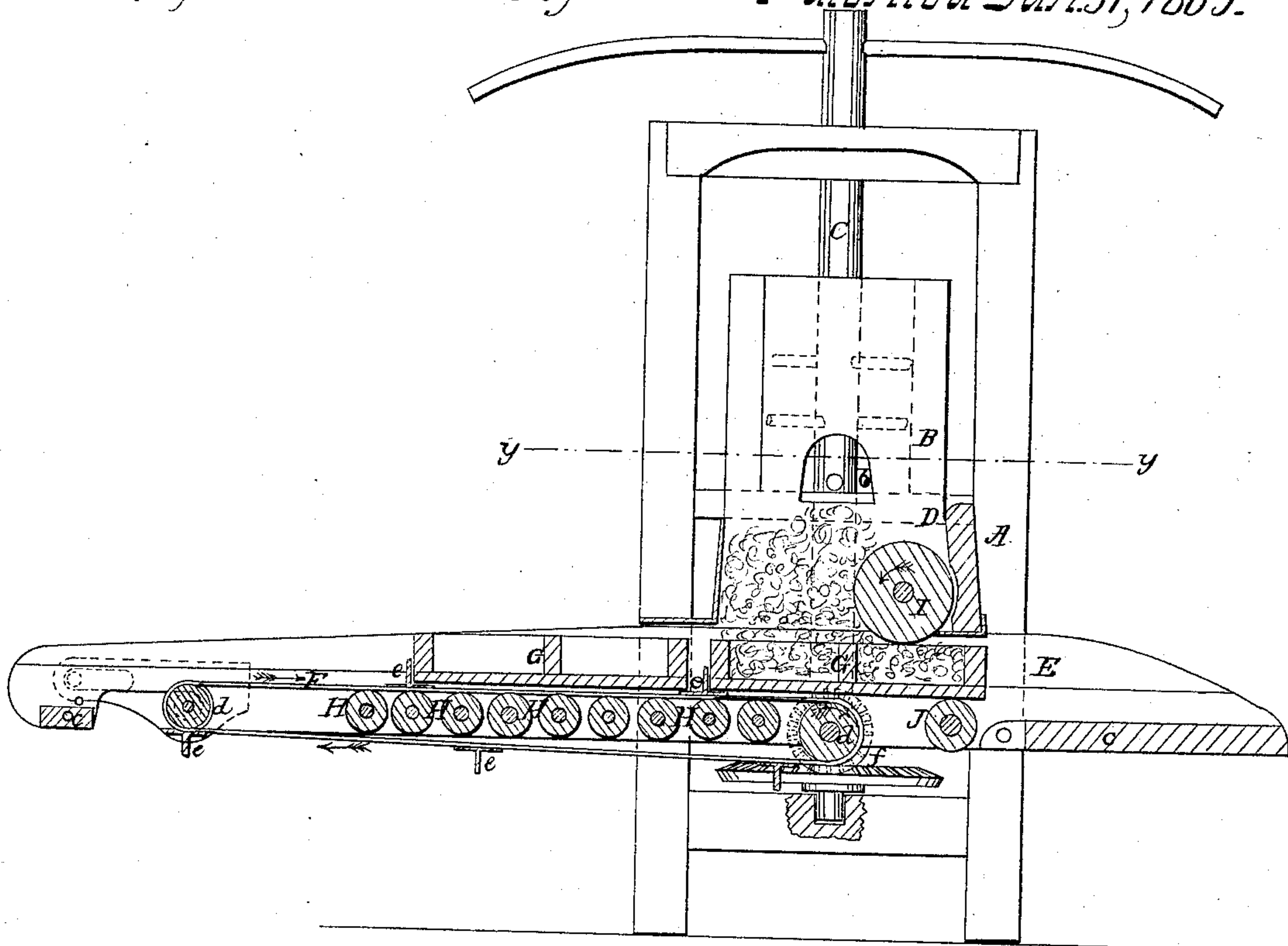
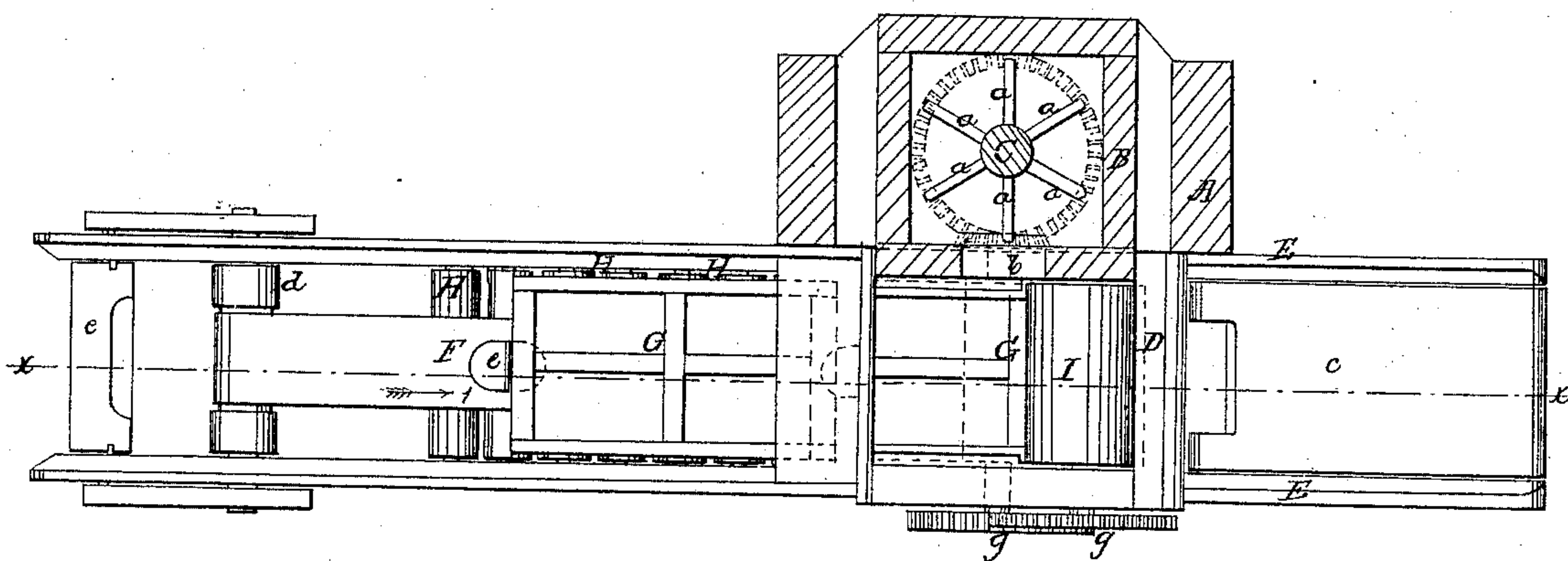


Fig 2.



Witnesses;
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UNITED STATES PATENT OFFICE.

W. A. HORRALL, OF WASHINGTON, INDIANA, ASSIGNOR TO HIMSELF AND
ALBERT W. CROSS, OF SAME PLACE.

IMPROVEMENT IN BRICK-MACHINES.

Specification forming part of Letters Patent No. **46,188**, dated January 31, 1866.

To all whom it may concern:

Be it known that I, W. A. HORRALL, of Washington, in the county of Davies and State of Indiana, have invented a new and Improved Brick-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a new and improved machine for pressing and molding bricks; and it consists in the employment or use of a mud mill, a pressure-roller, clay-box, and an endless band, all arranged in such a manner as to admit of the work being very expeditiously performed and in a thorough manner.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a framing in which an upright box, B, is placed, and C is a vertical shaft which passes centrally through the box B and has its bearings in the framing A. The shaft C has a series of horizontal arms, *a*, attached to it, which are within the box B, and at one side of said box, at its lower end, there is an opening, *b*, the bottom of which should be flush with or a little below the bottom of the box B.

D is a box which is secured to the framing A directly below the opening *b*. This box D is not provided with a bottom, and it is directly over two horizontal parallel side pieces, E E, which are connected near their ends by bottom pieces, *c c*.

F is an endless band which works over rollers *d d'*, fitted between the lower parts of the side pieces, E E. This band extends about half-way underneath the box D, and the former has plates, *e* attached to it at suitable dis-

tances apart to admit of the molds G being inserted between them. The band F is enabled to support the molds by means of a series of rollers, H, around which the belt works, as shown in Fig. 1.

Within the box D there is placed a roller, I, which is over the space beyond the endless band F and below the box D; at its end beyond the endless band there is a roller, J, the journals of which are in the side pieces, E E.

Motion is communicated to the endless band F by means of bevel-gears *f*, one of which is at the lower end of the shaft C and the other on the journal of the roller *d'* of said band.

The operation is as follows: The shaft C is rotated by any convenient power, and the clay properly moistened is thrown into the box B, the arms *a* on C tempering and grinding the clay and discharging the lower tempered and ground portion through the opening *b* into the box D. The endless band F is moved in the direction indicated by arrow 1, and conveys the molds G underneath the box D and roller I, the latter pressing the clay into the molds, as shown clearly in Fig. 1. The roller I is rotated by gearing *g* from the roller *d'*.

The whole arrangement is exceedingly simple, and the device operates very smoothly, it not having any of those jars and concussions which attend the presses having a reciprocating mold-discharging device.

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

So connecting the mechanism which drives the molds to the gear-wheel on the pressure-roller-shaft that the mold and periphery of the pressure-roller shall move in exact unison, by which their passage is facilitated and the clay evenly pressed, substantially as herein described and represented.

W. A. HORRALL.

Witnesses:

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