J. F. M. Pollock.

Brick Mach.

No. 94,337. Patented Aug. 31, 1869.

Fig. 1.

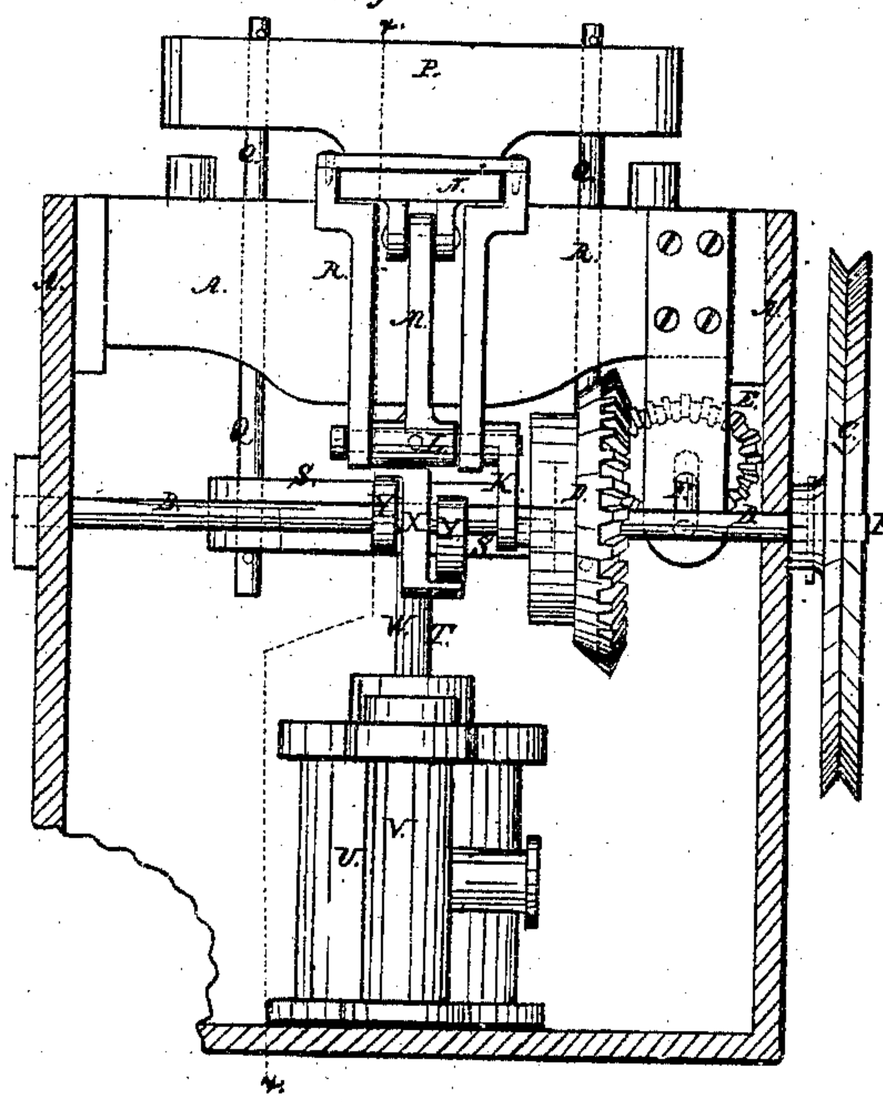


Fig. 3.

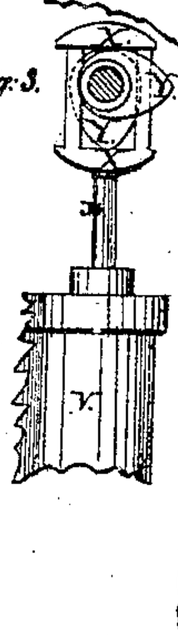


Fig. 2.

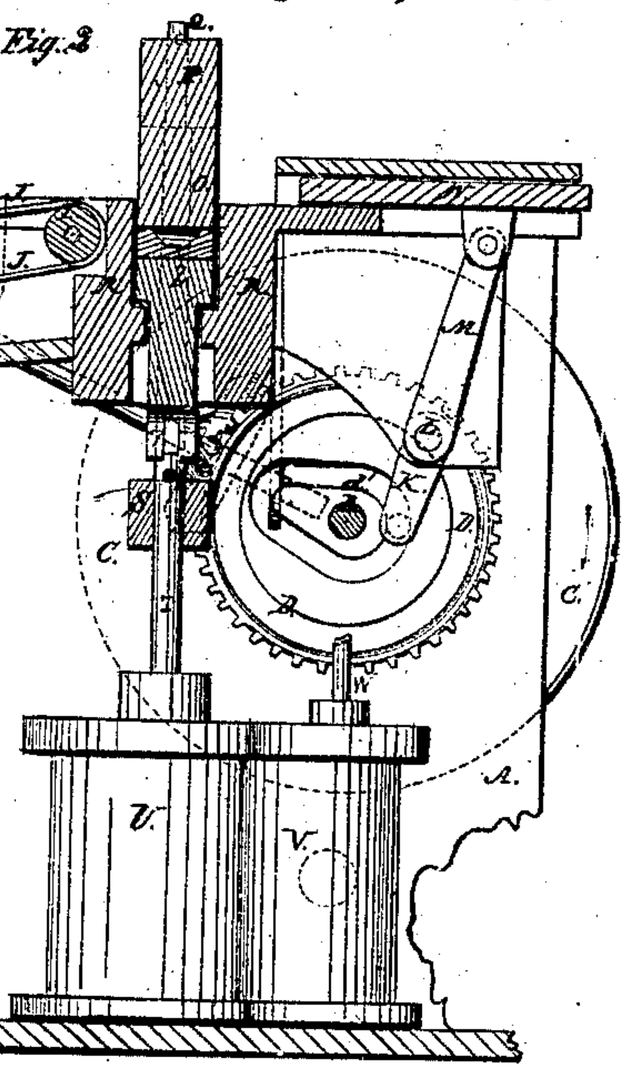


Fig. 4.

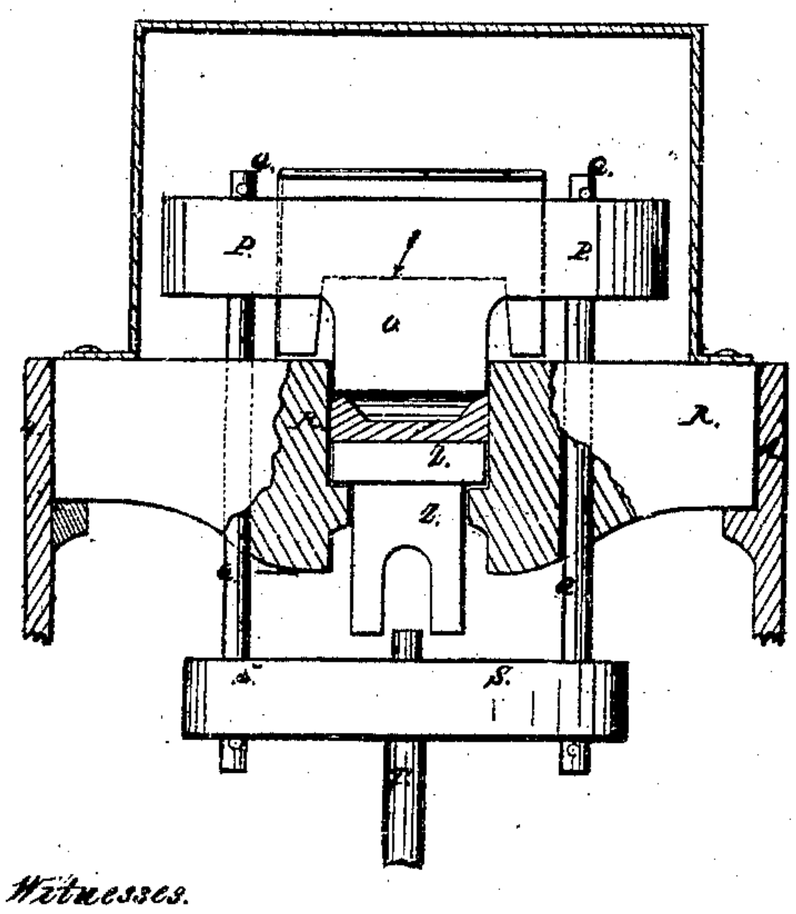
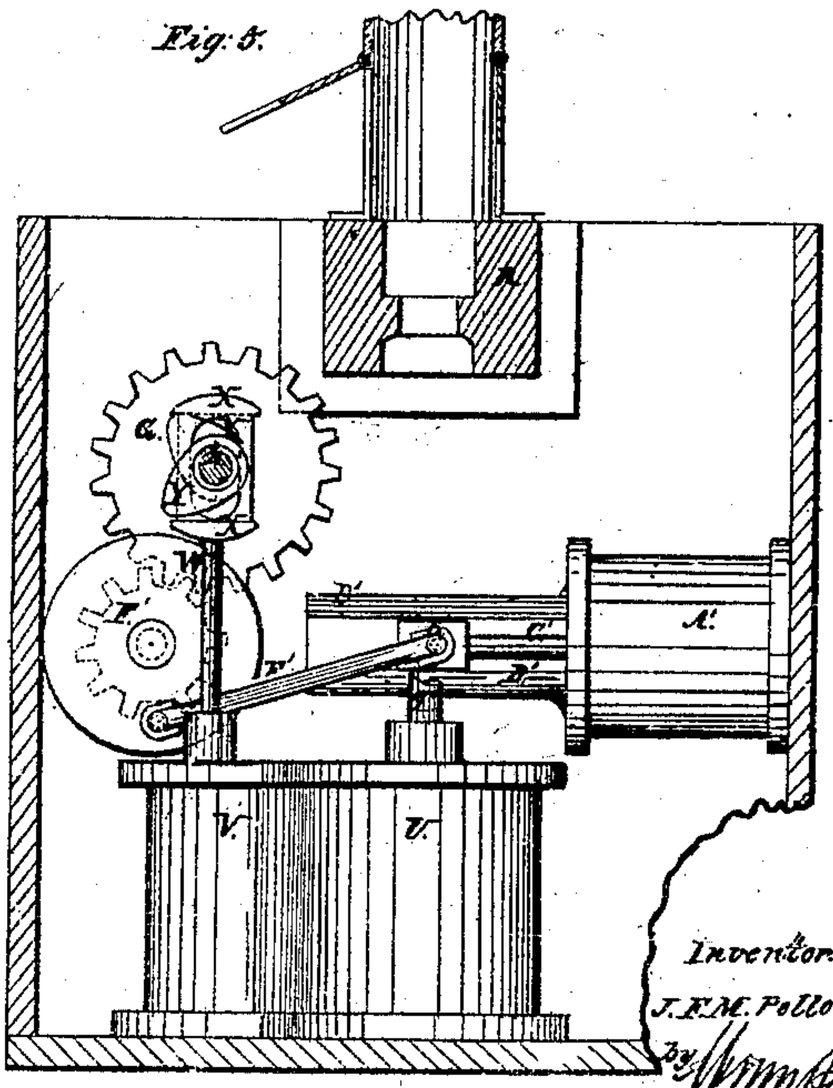


Fig. 5.



Witnesses.
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JULIUS FREDERICK MOORE POLLOCK, OF MANCHESTER, ENGLAND.

Letters Patent No. 94,337, *dated August* 31, 1869.

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, JULIUS FREDERICK MOORE POLLOCK, of Manchester, in England, have invented a new and improved Brick-Pressing Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others 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, Sheet I, is a vertical section of my improved machine.

Figure 2, Sheet I, is a detail sectional view of the same, taken through the line *x x*, fig. 1.

Figure 3, Sheet I, is a detail sectional view of the same.

Figure 4, Sheet II, is a detail sectional view of the upper part of the press.

Figure 5, Sheet II, represents a modified form of the operating-mechanism.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved machine for pressing brick, which shall be simple in construction, effective in operation, and convenient in use; and

It consists in the construction and combination of the various parts of the machine, as hereinafter more fully described.

A represents the frame of the machine.

B is the driving-shaft, which revolves in bearings in the frame A, and which receives motion from any convenient line of shafting, by means of a band passing around the pulley C, attached to the said shaft.

To the shaft B is attached a bevel gear-wheel, D, the teeth of which mesh into the teeth of the bevel gear-wheel E, attached to the shaft F, which revolves in bearings in supports attached to the frame A, and to the other end of which is attached a bevel gear-wheel, G.

The teeth of the bevel gear-wheel G mesh into the teeth of the bevel gear-wheel H, attached to the journal of one of the rollers I, around which passes the endless apron J, by which the pressed bricks are carried away from the machine.

Upon the side of the bevel gear-wheel D is formed a cam-groove, *d'*, into which enters the crank-pin of the crank K, attached to the end of the shaft L, which works in supports attached to the frame A of the machine, and to which is rigidly attached the lower end of the arm or bar M, the upper end of which is pivoted to the follower N, by means of which the moulded bricks are fed into the press.

O is the die, by which the bricks are pressed into the desired form, and which is securely attached to the bar P, to the ends of which are rigidly attached the upper ends of the rods or bars Q, which pass down through holes in the bed-plate R, and the lower ends of which are rigidly attached to the cross-head S of the piston-rod T of the steam-cylinder U, so that the die may be operated to press the brick by the movement of the piston of said cylinder.

V is the steam-chest, the valve-stem W of which terminates with a cross-head, X, the arms of which are at different elevations, and which extend up between the two cams Y attached to the shaft B, in such positions that they may act upon the cross-head X to open and close the valves in said steam-chest, at the proper times, to raise and lower the die O.

Z is the lower die, which is placed in a socket in the bed or die-plate R, and rests upon flanges formed upon the inner sides of said socket, as shown in fig. 2.

Upon the lower side of the die Z, are formed arms, which extend downward into such a position that the cross-head S, as it rises, may raise the die Z and the pressed brick, so that the advance of the next brick may push the pressed brick upon the carrier J, by which it is removed from the machine.

If desired, the dies and the die-plate may be covered and protected by a cap or case, as shown at figs. 4 and 5.

In case there is no convenient line of shafting, the shaft B may be operated by a small steam-cylinder, A', the cross-head B' of the piston-rod C' of which works in guides D', and to it is pivoted the end of the pitman E', the other end of which is pivoted to the crank-pin of the gear-wheel F', the journals of which work in bearings attached to the frame A, and the teeth of which mesh into the teeth of the gear-wheel G', attached to said shaft B, as shown in fig. 5.

Having thus described my invention,

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

1. The arrangement of the driving-shaft B, cams Y, cross-head X, valve-stem W, steam-chest V, steam-cylinder U, piston-rod T, cross-head S, rods Q, cross-head or bar P, dies O Z, and bed or die-plate R, substantially as herein described, for the purpose specified.

2. The described arrangement, with relation to the cam gear-wheels D, the dies O Z, and bed-plate R, of the crank K, pitman M, and feeder N, the shaft F, gear-wheels E G H, and endless carrier J, for the purpose specified.

The above specification of my invention signed by me, this 7th day of December, 1868.

JULIUS FREDERICK MOORE POLLOCK.

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