

(No Model.)

J. H. FLANEGAN.
BRICK MACHINE.

No. 355,690.

Patented Jan. 11, 1887.

fig. 1.

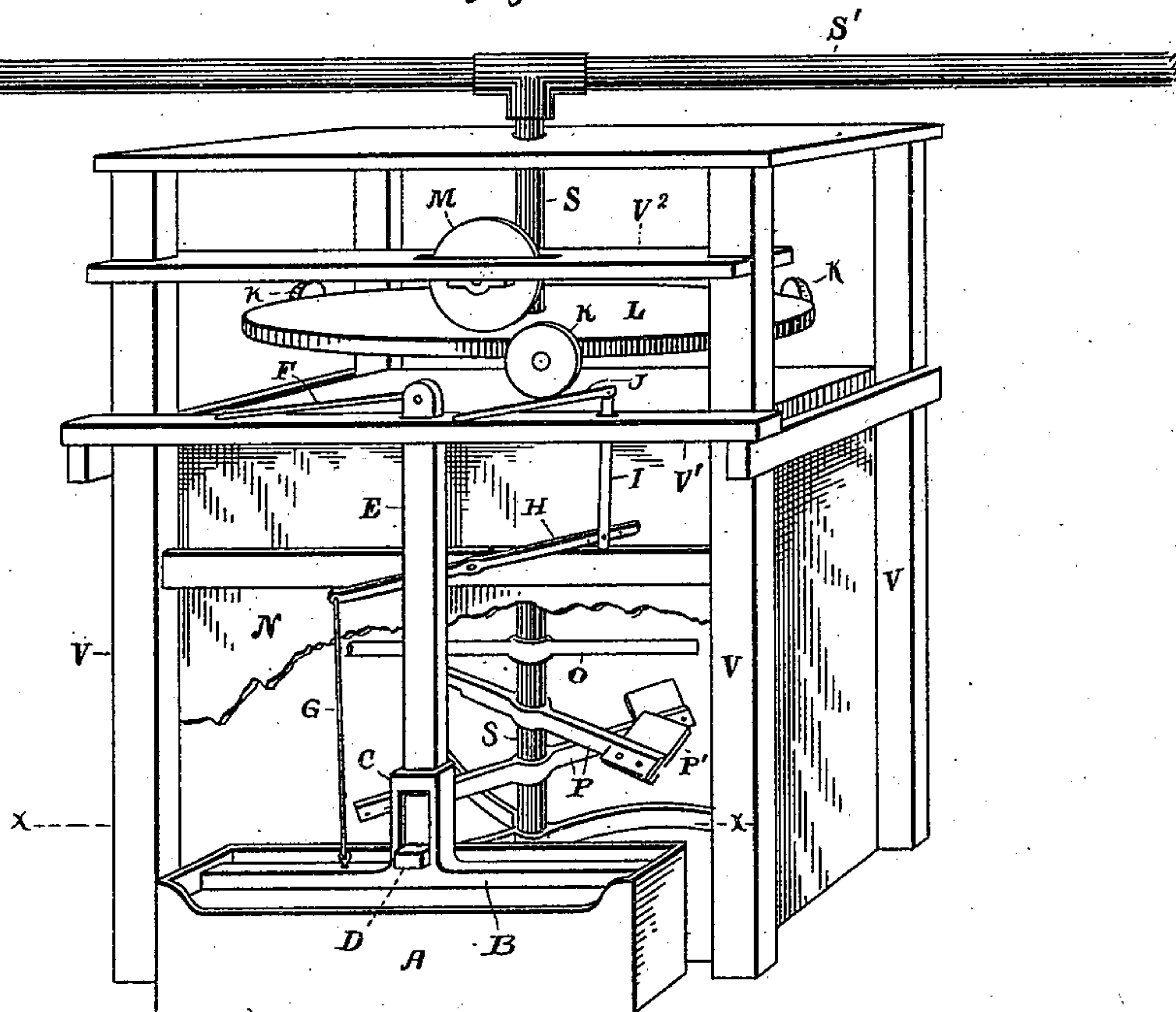


fig. 3.

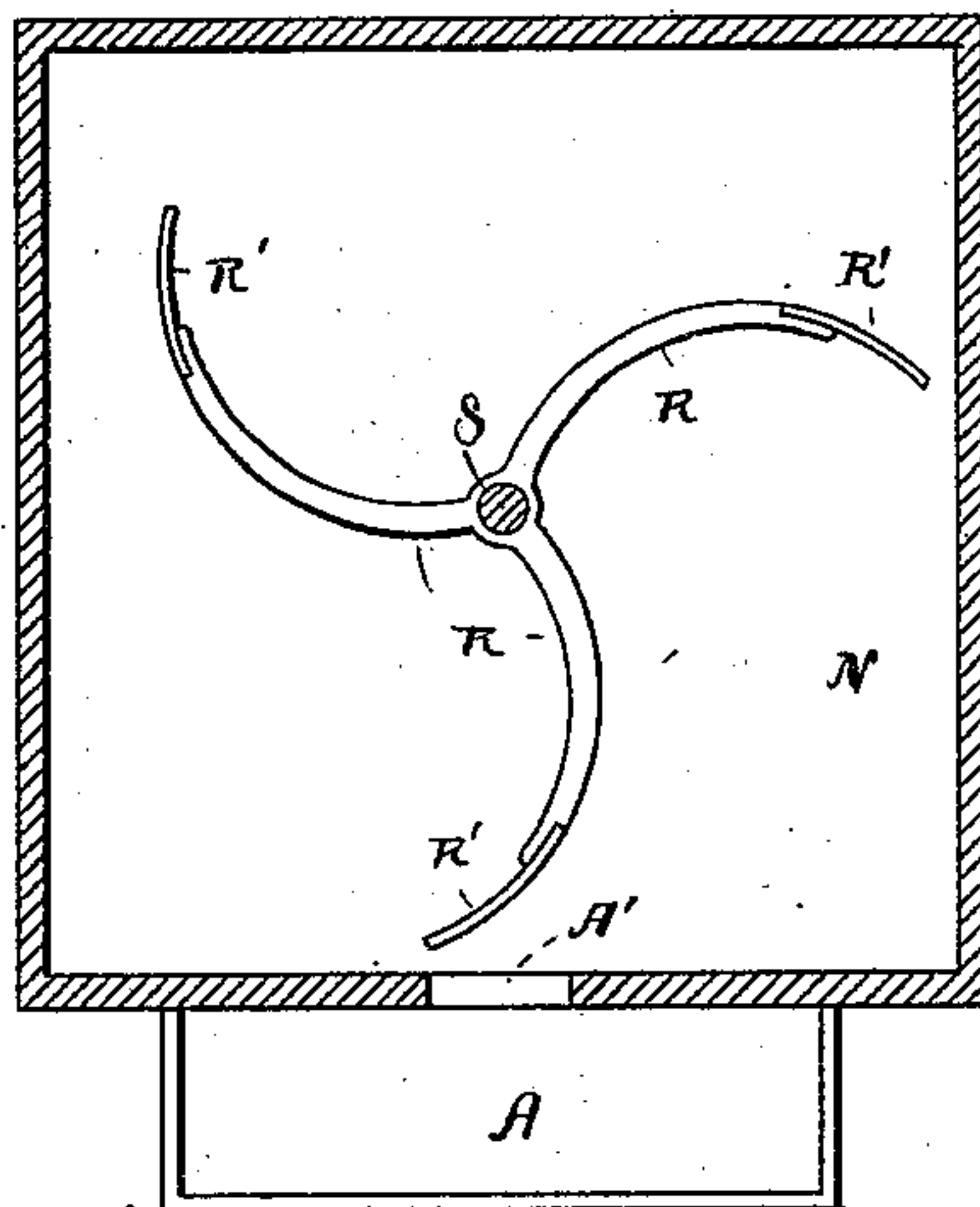


fig. 2.

Witnesses;

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UNITED STATES PATENT OFFICE.

JAMES H. FLANEGAN, OF PEORIA, ILLINOIS.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 355,690, dated January 11, 1887.

Application filed July 17, 1886. Serial No. 208,239. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. FLANEGAN, of Peoria, in the county of Peoria, State of Illinois, have invented an Improved Brick-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, and that it is clearly illustrated in the drawings, in which—

Figure 1 is a perspective elevation of the brick-machine. Fig. 2 is a horizontal section at $x x$ in Fig. 1, and Fig. 3 is a detail view.

S is the vertical shaft, having sweep S' at its upper end, to which the propelling animals are attached. The lower end of said shaft terminates in the mud-box N, and is provided in said box with the radial rods O.

A is the press-box, in which are the molds for the reception of the mud, and B is the plunger or press-head. The ordinary construction whereby this plunger is operated is by means of a lever actuated by hand. My automatic means for this purpose consists of the horizontal wheel L, rigidly mounted on the shaft S and provided with peripheral friction wheels or rollers K, which are adapted to engage with the upper end of the plunger-bar E and depress the same. The upper end of the plunger-bar E passes through an opening in the beam V' of the frame-work of the machine, and to said extremity is attached an end of the mounting-strip F, secured at its other end to said beam V' , and the object of which is to enable the friction-roller K to mount and depress the plunger-bar E.

To raise the plunger after it has been depressed, I pivot on the beam V' another mounting-strip, J, having its free end connected by the link I to the centrally-pivoted lever H, whose opposite end is connected to the plunger B; hence when the friction-roller K passes the plunger-bar E, depressing the same, it comes to the mounting-strip J, depresses the same, and thereby, through the reversing movement of the lever H, elevates the plunger and plunger-bar.

I usually furnish the wheel L with three friction-rollers, K, peripherally mounted thereon at equal distances apart. By this means each revolution of the wheel L imparts three separate press movements to the plunger. More or less of such friction-rollers can be

mounted on the wheel L, but I find three to be most convenient for the purpose.

To prevent the upward pressure which the friction-wheel receives in doing its work from breaking the wheel L, I mount a roller, M, in bearings just above said wheel L, so that said roller shall receive and resist the upward pressure imparted to said wheel.

In the mud-box N, behind the press A, is the lower portion of the shaft S, and to said shaft are secured the stirring-arms, the knives, and swipes for acting upon the contained mud.

In Fig. 1 a portion of the front of the mud-box N is represented as broken away, so as to show the shaft and its mud-mixing arms. These arms consist of the radial rods O, projecting rigidly from the shaft S, and designed for mixing the mud; the radial arms P, provided with the angular knives P' , designed for acting upon the mud in the box and forcing the same downward; and the swipes R, having extension-blades R' , for forcing the mud from the box through the opening into the press-box A. In Fig. 2 said opening and relative arrangement of the mud-box and press-box is shown, and also the swipe-extensions R' .

The shaft S is made to revolve with the right hand end of the sweep S' receding, or opposite to the hands of a watch; hence the friction-rollers K come in each case in contact first with the mounting-strip F, and, after having depressed the same and the plunger, pass to the second mounting-strip, H, depressing it and elevating the plunger.

Between the mud-box N and the press A is the opening A' , controlled by the plunger, as in other brick-machines of the kind. As the swipes R revolve past this opening A' the lateral pressure thereof forces the mud through said opening into the press. Prolonging the swipe-arms by attaching to their extremities the curved broad blades R' , whose outer edges almost touch the side of the mud-box about said opening, the mud is forced through the opening with much greater rapidity and certainty than with the old form of arms. Above the swipes are the radial arms P, to the extremities of which are secured the knives P' . It will be noticed that said knives are inclined upward toward their direction of advance, as

in Fig. 1. The object of this is that the mud may be not only more thoroughly mixed thereby, but, in addition, that the mud shall be impressed downward and delivered to the
5 swipes below. By this downward force-feed of these knives and the lateral impressing of the knives of the extended blades R' the mud is compelled to enter the press and fill the same with great compactness, so that when the
o plunger gives the finishing pressure thereto the brick produced is of the most solid and substantial kind.

I usually form as a part of the plunger B the socket C, a portion of the front of which
5 is open. Into this socket projects the lower extremity of the plunger-bar E, and beneath said end and the bottom of the socket-cavity I insert the block D, formed with several steps, as in Fig. 3. By inserting said block more or
o less of its length different heights are thereby presented, so that by means thereof I can change the compression given to the plunger through its plunger-bar.

What I claim as my invention, and for which
5 I desire Letters Patent, is as follows, to wit:
1. In a brick-machine, the combination, with

the press, the plunger-head reciprocating therein, the plunger-bar attached to the head, the mud-box communicating with the press, and the main shaft rotating in the mud-box, 30 of the wheel rigidly mounted on the shaft and having peripheral projections adapted to depress the plunger-bar and head, and the friction-roller mounted in fixed bearings above said wheel and approximately over said 35 plunger-bar.

2. In a brick-machine, the combination, with the revolving shaft, the wheel rigidly mounted thereon and provided with the friction-rollers, and the plunger-bar depressed by 40 said friction-rollers, of the roller mounted in fixed bearings above said wheel and approximately over said plunger-bar, for the purpose set forth.

In testimony that I claim the foregoing in- 45 vention I have hereunto set my hand and seal this 1st day of July, 1886.

JAMES H. FLANEGAN. [L. S.]

Witnesses:

A. B. UPHAM,
A. KEITHLEY.