

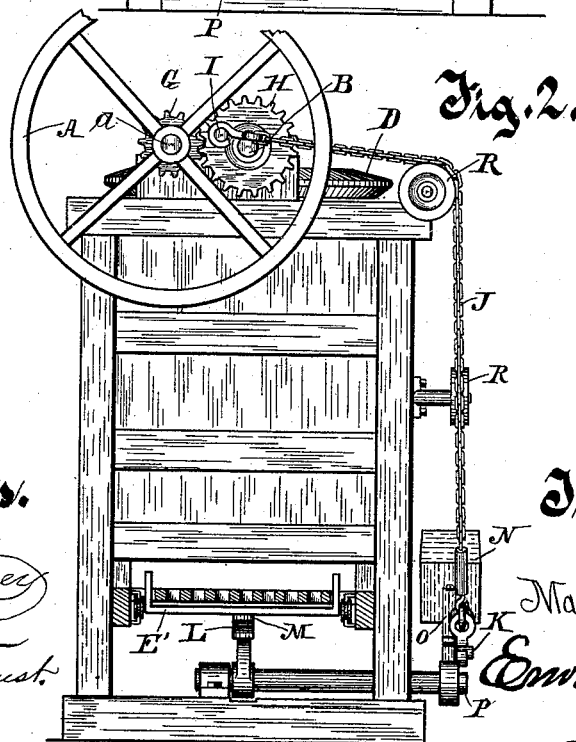
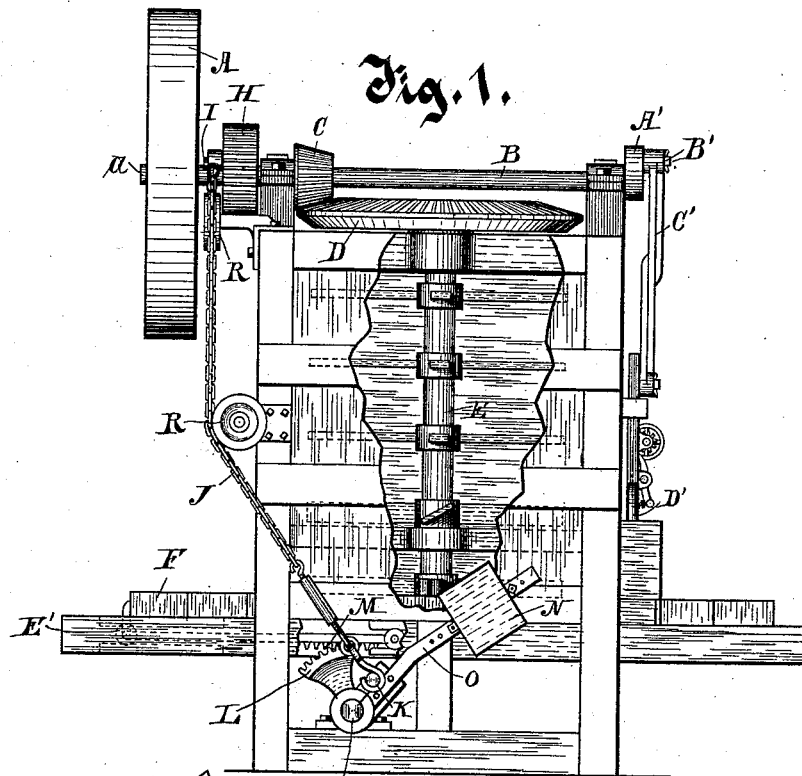
(No Model.)

2 Sheets—Sheet 1.

M. DAVELAAR.  
BRICK MACHINE.

No. 422,506.

Patented Mar. 4, 1890.



Witnesses.

*W. H. Keener*

*Emma Faust*

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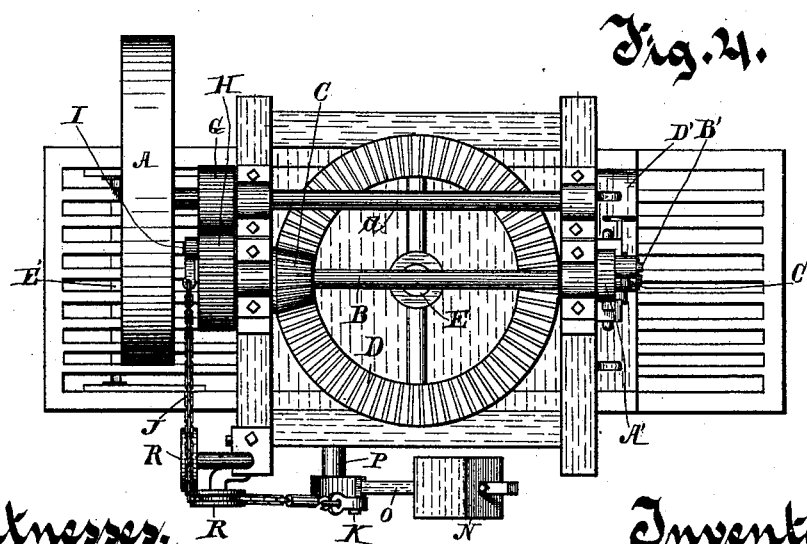
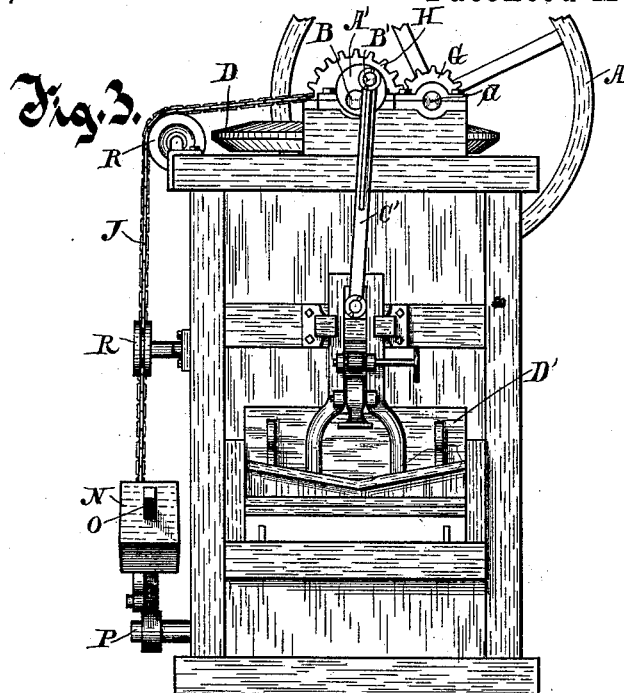
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# UNITED STATES PATENT OFFICE.

MARTIN DAVELAAR, OF MILWAUKEE, WISCONSIN.

## BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 422,506, dated March 4, 1890.

Application filed June 20, 1889. Serial No. 314,985. (No model.)

*To all whom it may concern:*

Be it known that I, MARTIN DAVELAAR, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Brick-Machines; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in brick-machines; and it pertains more especially to the device by which the brick-forming molds are forced forward into the clay-receptacle of the machine preparatory to being filled with clay.

It is a well-known fact that the brick-forming molds, as they are being forced forward into the machine, are frequently brought in contact with stone or other obstruction, by which the reciprocating carriage upon which the molds are supported is obstructed, in which case the molds or some part of the machine is thereby frequently broken.

The object of my invention is more especially to provide a safety device for communicating a reciprocating movement to the molds and their supporting-carriage by which the molds are forced forward into the machine independently of the action of the driving-shaft, which, when said molds are obstructed, will permit the driving mechanism of the machine to move forward independently of the molds until such obstruction is removed, thereby avoiding the danger of breaking the molds or other parts of the machine, as is the case where the molds are geared directly with the driving-shaft. It also pertains, second, to the mechanism for communicating motion from the drive-shaft to the rotating arms with which the clay is worked, as well as from the driving-shaft to the plunger by which the clay is pressed into the brick-forming molds.

The construction of my invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a side view thereof, with part broken away, showing the interior construction of the machine. Fig. 2 represents

an end view or a view drawn at right angles to that shown in Fig. 1. Fig. 3 represents the opposite end of the machine to that shown in Fig. 2, and Fig. 4 represents a top view of the machine.

Like parts are represented by the same reference-letters throughout the several views.

Motion is communicated to the grinding mechanism of the machine from a motive power (not shown) through the band-wheel A, shaft *a*, pinions G and H, shaft B, beveled gears C and D, and shaft E. Motion is communicated in one direction from the driving-shaft to the carriage E' through the pinions G and H, crank-pin I, chain J, wrist-pin K, lever O, shaft P, segmental gear L, and toothed bar M, and in the opposite direction from the gravity-weight N through lever O, shaft P, and the intermediate mechanism described. Thus it is obvious that with each rotation of the crank-pin I from right to left, as shown in Fig. 2, an upward movement is communicated to the lever O from said crank-pin through the chain J, while at the same time motion is also communicated through the shaft P, segmental gear L, and toothed bar M to the mold-carriage E', when said carriage is thereby moved from right to left, leaving room for the reception of additional molds. Simultaneously with such movement of the carriage E' an upward movement is communicated to the weight N through the shaft P and lever O. As the crank-pin I continues on in its rotary movement from left to right, said chain J is permitted to descend, thereby releasing the lever O, when said lever is drawn downward by the gravity of the weight N, whereby the reciprocating carriage E' and the molds F are moved in the opposite direction into the clay-receptacle. Thus it is obvious that when said molds F are obstructed in moving toward the right, as shown in Fig. 1, the chain J will simply be slackened with each downward movement of the crank-pin I as the driving-shaft rotates and no motion whatever will be communicated from the drive-shaft to the reciprocating carriage.

The gravity of the weight N is such as will move the molds and carriage with a steady positive movement when unobstructed and

doing ordinary work; but such weight is not sufficient to break or injure the machine in any way when the same is obstructed.

R R are pulleys or idlers for supporting and guiding the chain J.

To one end of the driving-shaft B is connected a crank wheel or arm A', crank-pin B', and connecting-rod C', through which a reciprocating movement is communicated to the plunger or piston D', which plunger and its connections are of the ordinary construction and form no part of my present invention.

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

1. In a brick-machine, the device for operating the segmental gear through which motion is communicated to the reciprocating mold-carriage, consisting of the combination of the gear-supporting shaft P, radial lever O, affixed at one end to said shaft P, the thereon-adjustable weight N, supported by said lever O from said shaft P, and means for communicating motion to said lever from the driving-shaft of the machine as said weight is

raised, and mechanism for communicating motion from said lever O and the thereon-supported weight as said weight descends of its own gravity to said reciprocating mold-carriage, substantially as and for the purpose specified.

2. In a brick-machine, the combination of the shaft a, the pinion G, pinion H, wrist-pin I, protruding from the side of said pinion H, chain J, provided with supporting-pulleys R, lever O, provided with weight N, wrist-pin K, affixed to said lever O, lever-supporting shaft P, segmental gear L, tooth-bar M, and reciprocating carriage E', said carriage E' being moved in one direction by the direct action of the driving-shaft through the mechanism described and in the opposite direction by the gravity of the weight N, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN DAVELAAR.

Witnesses:

JAS. B. ERWIN,  
C. T. BENEDICT.