

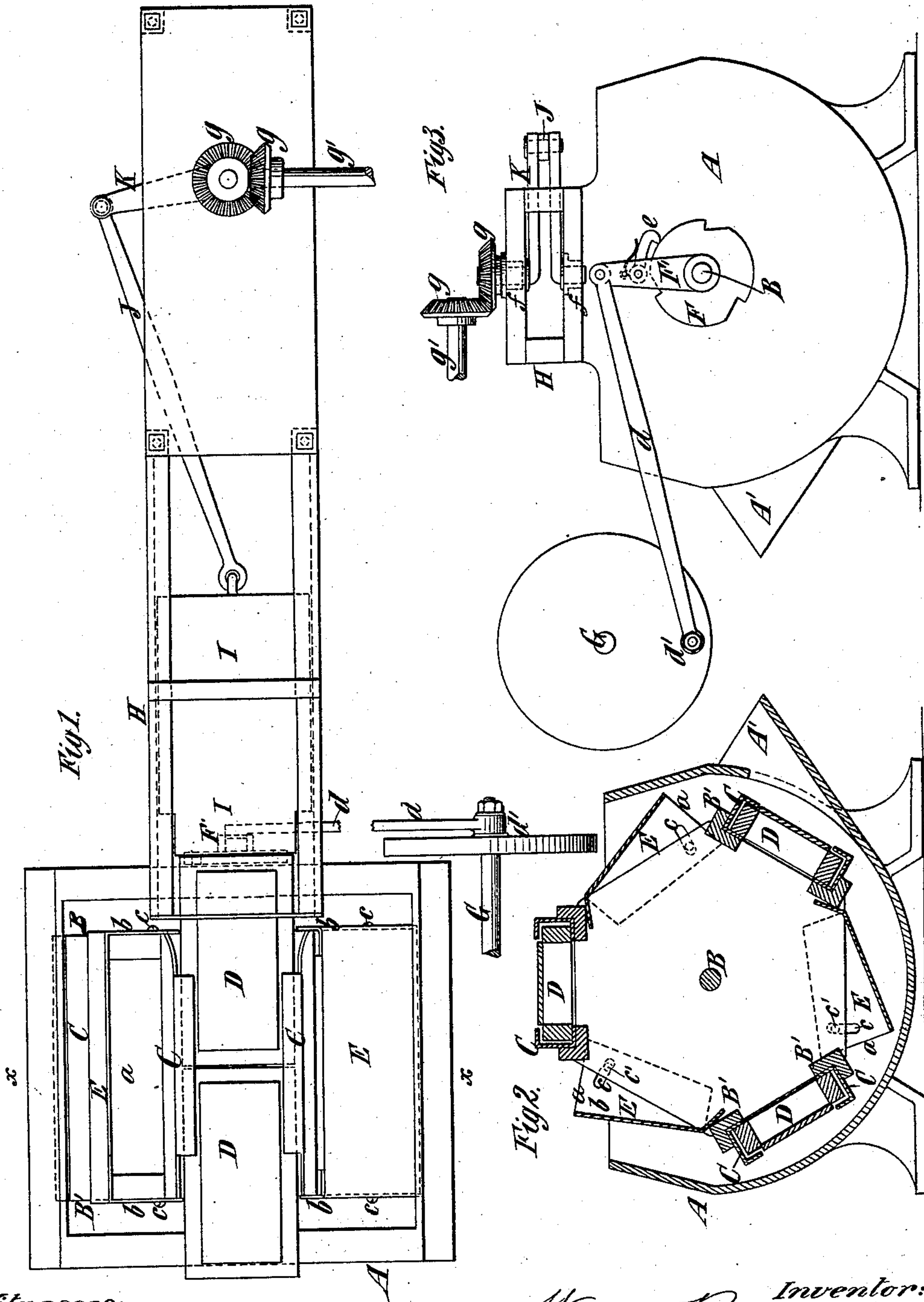
(No Model.)

W. BROWER.

MACHINE FOR SANDING BRICK MOLDS.

No. 290,736.

Patented Dec. 25, 1883.



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UNITED STATES PATENT OFFICE.

WARREN BROWER, OF NEWBURG, NEW YORK.

MACHINE FOR SANDING BRICK-MOLDS.

SPECIFICATION forming part of Letters Patent No. 280,736, dated December 25, 1883.

Application filed April 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, WARREN BROWER, of Newburg, in the county of Orange and State of New York, have invented a new and Improved Machine for Sanding Brick-Molds, of which the following is a specification.

The molds used in brick-machines have to be sanded before the clay is pressed into them; and the object of my invention is to provide a simple machine which shall be automatic in its action, and which will, after a pile of molds are placed one on another, feed them one by one into the sanding-machine proper, and deliver them after sanding them.

My invention consists in novel features of construction and combinations of parts herein-after described, and pointed out in the claims, whereby the desired result is attained.

In the accompanying drawings, Figure 1 is a plan of my improved machine. Fig. 2 is a transverse vertical section thereof on the plane of the dotted line *x x*, Fig. 1; and Fig. 3 is an end elevation thereof.

Similar letters of reference designate corresponding parts in all the figures.

A designates a sand box or case, which may be of any suitable form, and constructed of wood or metal. It is provided on one side with a hopper or chute, A', through which sand may be introduced into it.

B designates a shaft journaled in suitable bearings in the box or case A, and carrying a frame or reel, B', which may be of any desired construction, and which is secured fast to the shaft, so as to be turned with it. The rotary frame or reel B' should be about as long as the brick-molds to be sanded, and it is provided on its perimeter or outer face with a number of slideways, C, of which three are here shown. These slideways extend lengthwise of the shaft B. They may be made of or lined with metal, and are of a size to permit the brick-molds D to be easily slid into them, as shown in Figs. 1 and 2. The slideways are open at the ends, so that the molds may be slid into one end thereof and shoved out the other end by the introduction of a second mold, and they are of such construction that they hold the molds securely on the reel, independently of other means, as the reel rotates.

Placed intermediately between the slide-

ways C are scoops E, which may be made of sheet metal, with open mouths *a*. The scoops may each be made of a single piece of sheet metal, having portions *b* bent at right angles to form the ends of the scoop, and these ends may have in them slots *c*, through which may be inserted bolts *c'*, thus providing for adjusting the scoop to increase or diminish the size of the mouth *a*. A continuous rotary motion or a step-by-step rotary motion may be imparted to the reel or frame B' by any suitable mechanism. As here shown, F designates a notched or ratchet wheel, which is fixed on the shaft B; and F' designates an arm mounted loosely on said shaft, and adapted to be moved back and forth by a connecting-rod, *d*, reciprocated by a crank, *d'*, on a driving-shaft, G. The arm F' carries a pawl, *e*, and at each half-revolution of said crank the reel or frame B' is moved a fraction of a revolution, so as to bring one of the slideways C uppermost at each step, and during the remaining half of the revolution the arm F' is moved backward, the pawl moving idly over the wheel F. The shaft G may be rotated by a hand-crank, or in any other suitable way. This gives ample opportunity for removing the mold D from the top slideway, C, and introducing another mold to be sanded. The molds D are inserted upside down in the slideways C, and the reel or frame B' and shaft B should be rotated in the direction indicated by the arrow in Fig. 2. The mouth *a* of each scoop will then dip into and take up sand in the box or case A, and as the scoop moves upward the sand runs or flows backward and onto and into the mold in rear of the scoop. The molds are wetted before being placed in the machine, and when they reach the point where they were inserted the sand falls out to be again scooped up, and sufficient sand is left adhering to the molds to serve the purpose intended. The molds might be inserted into and withdrawn from the slideways C by hand; but preferably I employ a feeder or feeding apparatus. (Shown in Figs. 1 and 3.)

H designates a slide way which extends from the box or case A, and is arranged so that after each partial revolution of the frame or reel B' it will stop with one of the slideways C opposite and in line with the slideway H.

In the slideway H is a pusher or plunger, I,

reciprocated by a connecting-rod, J, from a crank, K. The crank K is journaled in bearings *f*, and may be operated by means of bevel-wheels *g g* from a driving-shaft, *g'*. The shaft 5 may be connected by suitable gearing with the shaft G, or it may be operated independently by a belt. The mechanism should be so timed that the plunger or pusher I will make its forward movement while the reel or frame B' is 10 stationary. The molds D are placed in a pile at the inner end of the slideway H, and as the plunger or pusher moves in it pushes the lowermost mold from the slideway H into the slideway C, thereby displacing the mold and 15 forcing it out at the opposite side of the reel or frame B'. After this the pusher I moves back entirely beyond the pile of molds D, and the molds descend so as to bring the lower one opposite or in the way of the pusher at its 20 next movement. All that is necessary is to place the molds in a pile on the feeding-slideway H and to keep a supply of sand in the case A. The machine will then operate entirely automatically, and will sand molds ex- 25 peditiously and at a small cost.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a sand box or case, a rotary reel or frame journaled therein, and pro- 30 vided with open-ended slideways extending lengthwise on its face, for the reception of molds, said slideways being so constructed that molds may be slid into them from their

ends, and that they will retain the molds in- 35 dependently of other means as the reel or frame rotates, scoops arranged intermediately between said slideways, for lifting the sand and filling the molds, and mechanism for imparting a rotary motion to said reel or frame, sub- 40 stantially as and for the purpose described.

2. The combination of the sand-box A, the shaft B, the reel or frame B', comprising slide- ways C, the scoops E, arranged between the slideways, and having adjustable mouths, and mechanism for imparting a rotary motion to 45 said reel or frame, substantially as herein described.

3. The combination, with a sand box or case, a mold reel or frame journaled therein, and comprising open-ended slideways, into the 50 ends of which molds may be slid, and intervening scoops, and mechanism for imparting a step-by-step rotation to the reel or frame, of the slideway arranged at the end of said reel or frame, and a reciprocating pusher or plunger 55 working in said slideway, for feeding the molds into the slideways of said reel or rotary frame in the intervals between the step-by-step movements of the latter, substantially as herein described.

WARREN ^{his} X BROWER.
mark.

Witnesses:

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