

J. D. HUBERT.
BRICKMAKING MACHINE.
APPLICATION FILED DEC. 8, 1911.

1,048,537.

Patented Dec. 31, 1912.

2 SHEETS-SHEET 1.

Fig. 1.

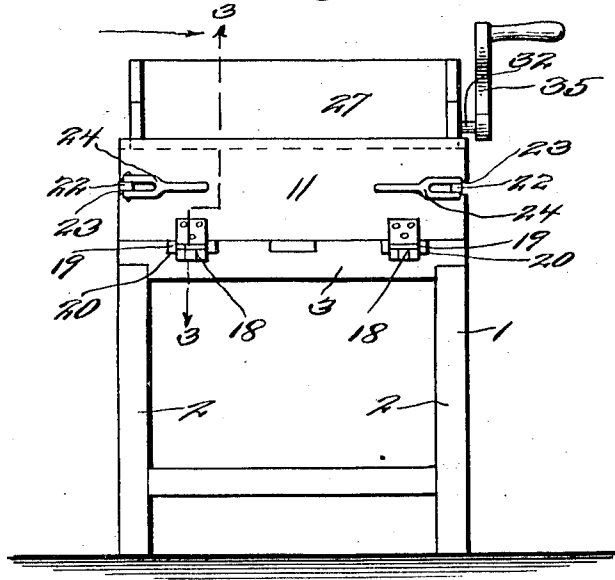


Fig. 2.

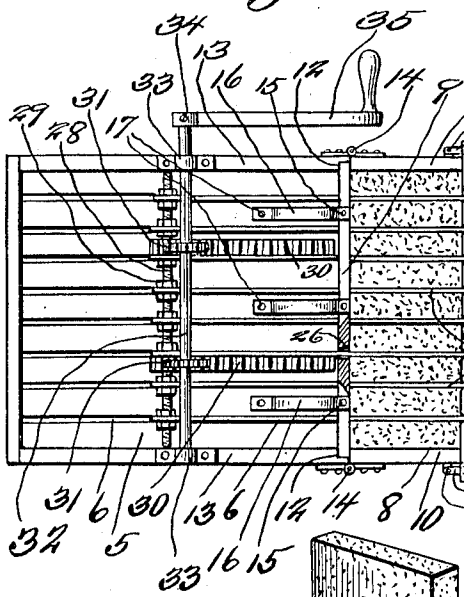


Fig. 3.

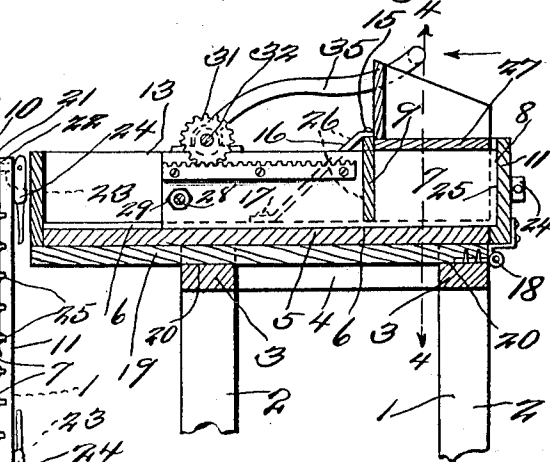
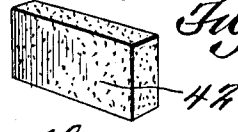


Fig. 4.



Witnesses

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2 SHEETS—SHEET 2.

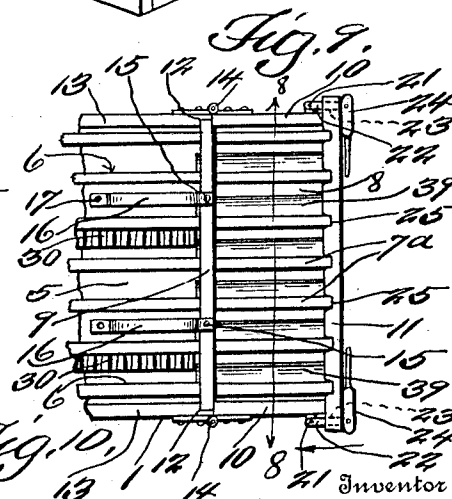
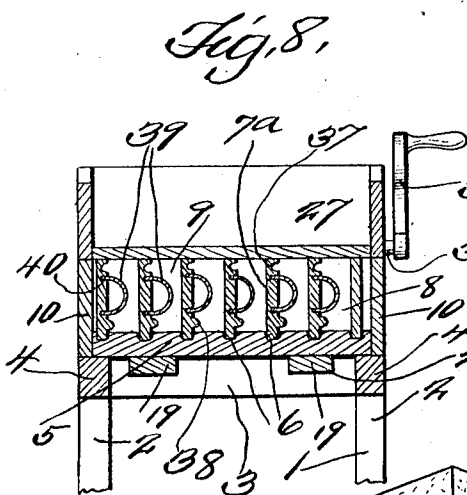
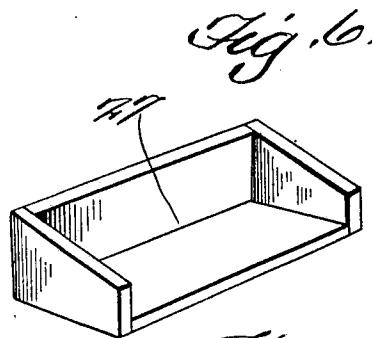
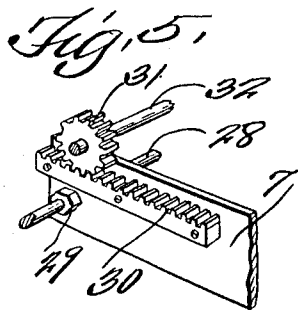
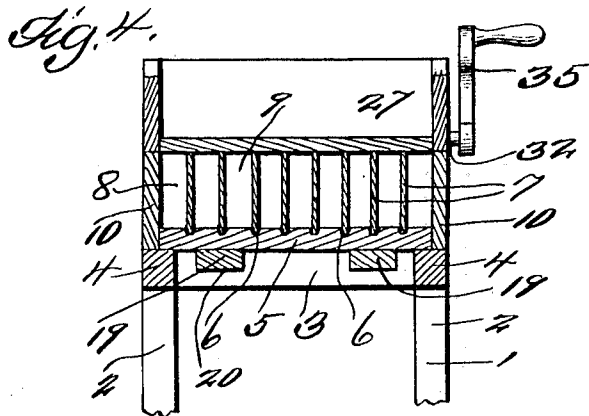
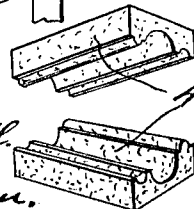


Fig. 10.



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UNITED STATES PATENT OFFICE.

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BRICKMAKING-MACHINE.

1,048,537.

Specification of Letters Patent.

Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, JAMES D. HUBERT, a citizen of the United States, residing at Hillman, in the county of Montmorency and State of Michigan, have invented a new and useful Brickmaking-Machine; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a new and useful brick or block making machine, adapted for molding bricks, blocks and the like from cement or other plastic material.

The principal object of the invention is to provide a simple and practical device of this nature, in which there are involved novel features of construction.

A further object of the invention is to provide a brick machine having a plurality of division plates and guides therefor, adapted to be forced through the cement or plastic material, so as to divide the same, and after the cement or other plastic material has sufficiently set, the division plates may be withdrawn. After the division plates have been withdrawn, the two end boards and the front board of the mold may be opened, and the brick or other commodity removed.

One of the features of the invention is to connect the division plates to a single threaded rod so that they may move simultaneously.

Another feature of the invention is the provision of a rack and pinion including a cranking mechanism therefor for moving the division plates, which may be plain as shown in Figures 2, 3, and 4 or of other configuration as shown in Figs. 8 and 9.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Fig. 1 is a view in elevation of the improved brick machine constructed in accordance with the invention. Fig. 2 is a plan view of the machine, showing the top of the mold portion of the machine removed. Fig. 3 is a sectional view on line 3—3 of Fig. 1. Fig. 4 is a sectional view on line 4—4 of Fig. 3. Fig. 5 is a detail view, showing one of the division plates, and the rack and pinion for moving the same. Fig. 6 is a detail perspective view of the top of the mold box of the machine.

Fig. 7 is a detail view of an oblong plain brick, which is formed by the division plates shown in Figs. 2, 3 and 4. Fig. 8 is a sectional view similar to Fig. 4 but showing a different form of division plates; for molding a brick having a semicircular groove or gutter, which plate when fitted to a similar brick a cylindrical gutter is formed. Fig. 9 is a plan view of a portion of the structure shown in Fig. 8. Fig. 10 is a view in perspective of two bricks in readiness to be placed together, which bricks are constructed by the division plates shown in Figs. 8 and 9.

Referring more particularly to the drawings 1 designates a frame comprising the legs 2, the longitudinal and transverse beams 3 and 4. Resting upon and secured thereto in any suitable manner (not shown) is a bed plate 5, which extends rearwardly of the frame. This bed plate is provided with longitudinal grooves 6, in which the division plates 7, whether plain as shown in Figs. 2, 3 and 4, or of other configuration as shown in Figs. 8 and 9, are guided.

The mold box 8 (through which the division plates are forced) of the machine is formed by the rear board 9, the two end boards 10, and the front board 11. The rear board 9 is arranged in recesses 12 of the side boards 13, which are secured to the extension portion of the bed plate. The end boards 10 of the mold box are hinged at 14 to the side boards 13, and when the end boards 10 are closed as shown in Fig. 2, the rear board 9 is clamped in position in the recesses 12. The rear board 9 has connected thereto as at 15 straps 16, which are secured at 17 to the extension of the bed plates. The straps 16 further assist in holding the rear board 9 securely in position. The end boards 10 swing laterally of the machine while the front board 11 swings downwardly, because of the same being hinged at 18 to the beams 19 of the frame. The beams 19 are arranged in recesses 20 of the beams 3. Pivoted at 21 to lugs of the end boards are links 22, which are designed to engage the recesses 23 of the front board 11. To hold the links 22 in the recesses levers 24 are pivoted to the links and are disposed in positions, as shown clearly in Figs. 1 and 2. The links and levers are for the purpose of locking the end boards and the front board together, as shown in Fig. 2, thus forming the mold box of the

machine. When the division plates are extended through the mold box, they are received in the grooves 25 of the front board 11. The division plates penetrate through openings 26 of the rear board 9, as they enter the mold box. The mold box is provided with a cover 27, which constitutes a receptacle for the cement or other plastic material prior to its being deposited in the mold. In other words the cement or other plastic material is thrown in the receptacle, and then slid therefrom into the mold box, after which the cover or receptacle is placed over the mold box as shown in Figs. 1 3 and 4. The division plates 7 have passing through them a threaded rod or shaft 28. Threaded on the rod 28, one on each side of each division plate, are nuts 29, which hold the division plates equally spaced apart, according to the size of brick to be formed. If the brick is to be of a thickness greater than that shown in Fig. 7, a different rear board is substituted for the one shown in Figs. 2 and 3, or every other division plate may be dispensed with. Two of the division plates 7 are provided with racks 30, which are engaged by the pinions 31, carried by and rotatable with the shaft 32. The shaft 32 is mounted in bearings 33 of the side boards 13. Secured to the shaft 32 at one end thereof, as at 34 is a crank 35, by which the shaft 32 may be rotated.

In constructing or forming bricks or the like the mold box is arranged as shown in Figs. 2 and 3, then the plastic material is deposited therein, and thence the cover or receptacle 27 is placed in position. Subsequently the division plates are forced through the rear board 9, so as to penetrate the cement, thus dividing the same into sections, by means of the rack and pinion and crank mechanism. After the cement has thoroughly set the division plates may be withdrawn, and the end boards 10 and front board 11 unlocked, thereby allowing the bricks to be removed.

In Fig. 8 the division plates 7^a are grooved adjacent one of their longitudinal edges as shown at 37, while adjacent their other longitudinal edges beads 38 are formed. In-

intermediate the grooves and the beads, the division plates 7^a are provided with sheet metal arched members 39, which are arranged semicircular in cross section. These arches are secured in any suitable manner (not shown) in the grooves 40 of the division plates 7^a. By virtue of the arches 39 and the grooves and beads 37 and 38, bricks 41, as shown in Fig. 10 are formed, that is, when the division plates are forced through the mold box. When it is desired to construct this form of brick, instead of the brick 42 in Fig. 7, the division plates 7 are dispensed with, and in lieu thereof the plates 7^a are arranged.

The invention having been set forth, what is claimed as new and useful is:

In a brick machine, a mold box adapted to contain plastic material, a plurality of divisional plates arranged in parallel relation, each plate upon one face thereof having a semi-circular metal arched member adapted to form a correspondingly-shaped depression in a brick, each plate having a groove on one side of the arched member and a rib upon the other side of the same member adapted to form correspondingly-shaped grooves and ribs in bricks, a bed plate for the box and having longitudinal grooves to receive and guide the plates, the bed plate having an extension provided with side boards, a threaded rod extending through the divisional plates arranged end for end between the side boards so as to guide the rear end of the divisional plate, nuts upon the rod, one threaded upon each side of each divisional plate for holding the plates spaced apart, two of the divisional plates having racks, and a manually revolvable shaft mounted in bearings of the side board and provided with gears engaging the racks whereby the plates may be protruded through the box and the material therein.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES D. HUBERT.

Witnesses:

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