

No. 892,574.

PATENTED JULY 7, 1908.

H. S. BOWLER.
BRICK MOLDING MACHINE.
APPLICATION FILED MAY 14, 1906.

2 SHEETS—SHEET 1.

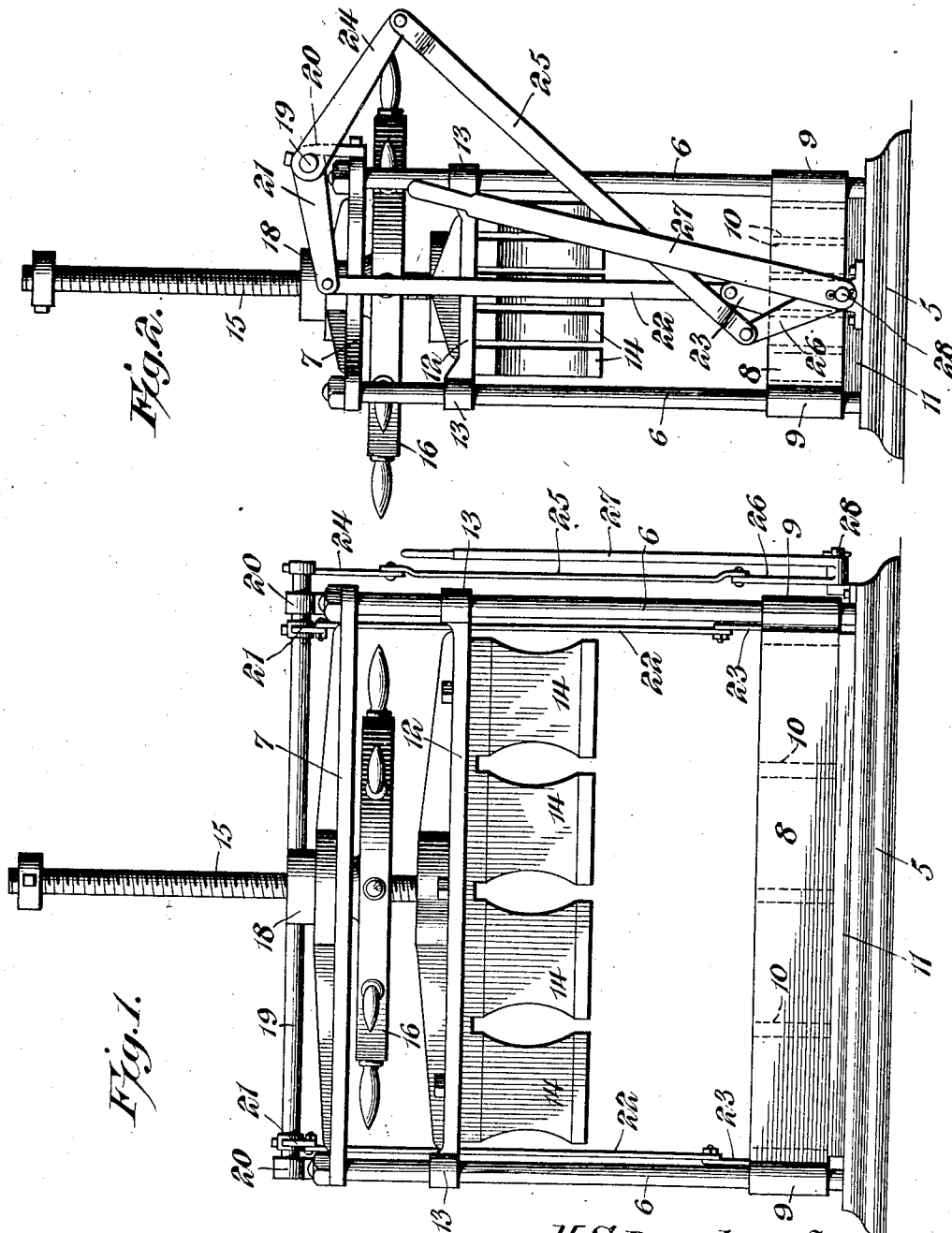


Fig. 2.

Fig. 1.

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Howard D. Orr.
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Fig. 4.

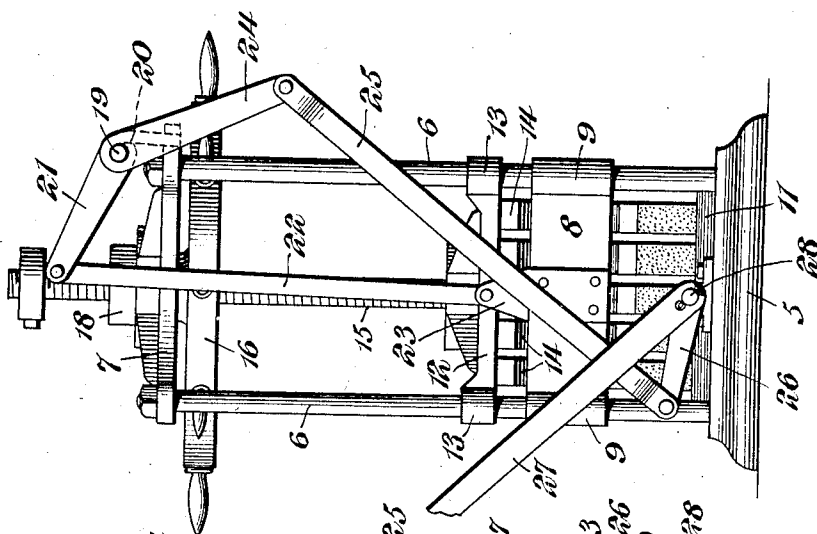
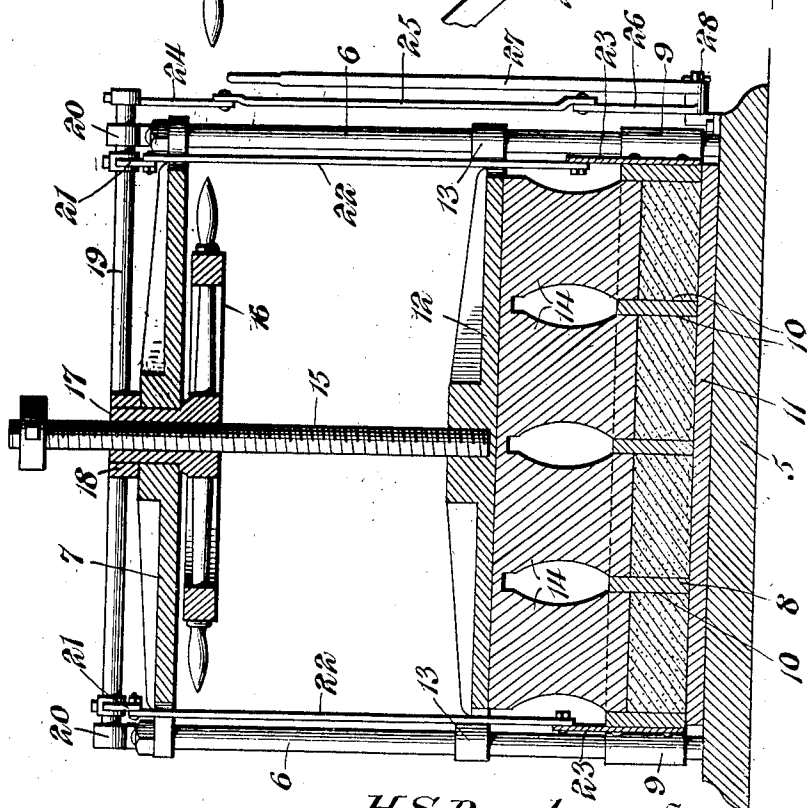


Fig. 3.



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UNITED STATES PATENT OFFICE.

HEZEKIAH S. BOWLER, OF GLOVERSVILLE, NEW YORK, ASSIGNOR OF ONE-FOURTH TO HARRY A. STEELE AND ONE-FOURTH TO WILLIAM F. STEELE, OF GLOVERSVILLE, NEW YORK.

BRICK-MOLDING MACHINE.

No. 892,574.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed May 14, 1906. Serial No. 316,741.

To all whom it may concern:

Be it known that I, HEZEKIAH S. BOWLER, a citizen of the United States, residing at Gloversville, in the county of Fulton and State of New York, have invented a new and useful Brick-Molding Machine, of which the following is a specification.

This invention relates to means for forming bricks.

The principal object is to provide a novel and simple structure, whereby a comparatively great number of bricks may be molded at each operation of the machine, said machine being rapid in its operation and eliminating the necessity of the slow tamping process now ordinarily employed in mechanisms of this character.

While the invention may either be power or manually operated, a machine of the latter type is disclosed in the accompanying drawings, wherein:—

Figure 1 is a side elevation of such machine. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical sectional view therethrough, and Fig. 4 is an end elevation, showing the relation of the parts when the mold body is elevated.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a suitable bed 5 is employed, having spaced upright guide standards 6 mounted thereon. The upper ends of these guide standards are connected to a cross head 7. Slidably mounted on the standards is a mold body 8, said body having collars 9 at its corners, through which the standards 6 pass. The mold body 8 is provided with a plurality of brick-shaping compartments 10, having open tops and bottoms, and of greater depth than the thickness of the completed bricks. This is an important feature, as hereinafter explained. The mold body is arranged to normally rest upon removable pallets, one of which is shown at 11, said pallets being placed upon the bed 5, between the standards, and constituting closures for the lower ends of the compartments 10. A plunger coöperates with the mold body, and comprises a plate 12, having collars 13 at its corners, which collars are slidably mounted on the standards 6. The plate is provided with a plurality of spaced depending heads 14 that are

arranged to enter the different compartments 10, as will be clear by reference to Fig. 3.

While any suitable mechanism may be employed for operating the above described parts, in case the machine is to be manually operated, the following actuating means is preferably employed. A screw stem 15 is carried by the plunger, and passes through the cross head 7. A hand wheel 16, located below said cross head, has a hub 17, journaled therein, and surrounding the stem, having a threaded engagement with the same and retained by a collar 18 in the cross head. It will thus be evident that by rotating the wheel 16 in one direction, the plunger will be moved downwardly into the mold body, and by rotating it in the opposite direction, said plunger will be elevated. A rock shaft 19, journaled in suitable ears 20, carried by the cross head 7, is provided with crank arms 21, and links 22, connected at their upper ends to the crank arms, are pivotally connected at their lower ends to ears 23, secured to the ends of the mold body. One end of the rock shaft 19 is provided with another crank arm 24, and a link 25, connected to the crank arm 24, has a connection with another crank arm 26, secured to an actuating lever 27, fulcrumed, as shown at 28 on one end of the bed 11. Thus upon the swinging movement of the lever 27, the shaft 19 will be rocked, and the mold body raised or lowered.

In using the machine, the plunger is elevated, the pallet 11 is placed upon the bed, and the mold body is arranged thereupon. The compartments are then filled with the material and leveled off even with the top of the body, after which the plunger is lowered, and the material pressed to the desired thickness of the bricks. Then the lever 27 is operated to rock the shaft 19, and this causes the elevation of the body, the plunger heads 14, however, holding the bricks upon the pallet, as shown in Fig. 4. After the mold body has been raised clear of said bricks, the plunger is again elevated, leaving the molded articles on the pallet, which may be removed and replaced by a new one, whereupon the operation is repeated. It will be seen that the structure disclosed is an exceedingly simple one, and that a comparatively great number of bricks may be simultaneously

formed. Moreover, there is no tamping necessary, the mold body compartments being of a sufficient depth to receive at first the entire amount of material necessary to form the completed bricks.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

In a brick molding machine, the combination with a bed, of spaced upstanding guide standards mounted on the bed, a cross head connecting the upper ends of the standards, a removable pallet that rests on the bed between the standards, a mold body slidably

mounted on the standards and having a plurality of brick-shaping compartments of greater depth than the thickness of the finished bricks, a rock shaft journaled on the upper ends of the standards, crank connections between the rock shaft and mold body for moving the same towards and from the pallet, means for operating the rock shaft, a plunger slidably mounted on the standards and having depending heads that operate in the compartments of the body to press the material therein to the thickness of the finished brick, a stem carried by the plunger and passing through the cross head, and an actuating wheel journaled in said cross head and surrounding the stem, said wheel having a threaded engagement with the stem.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HEZEKIAH S. BOWLER.

Witnesses:

WILLIAM S. CASSEDY,
MERRILL B. ALLISON.