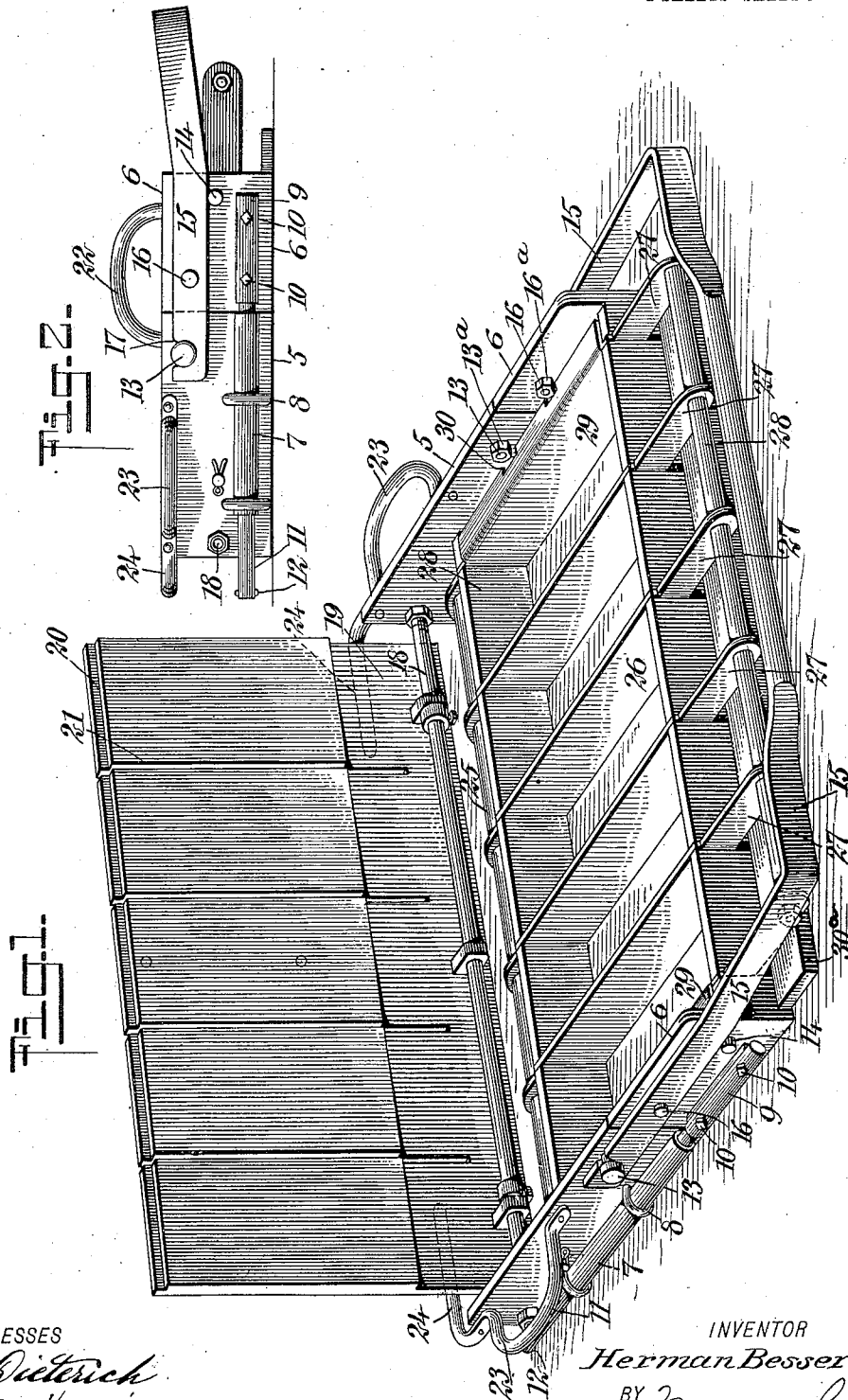


No. 844,237.

PATENTED FEB. 12, 1907.

H. BESSER.
MOLDING MACHINE.
APPLICATION FILED SEPT. 21, 1906.

2 SHEETS—SHEET 1



WITNESSES
H. J. Wietrich
Walton Harrison

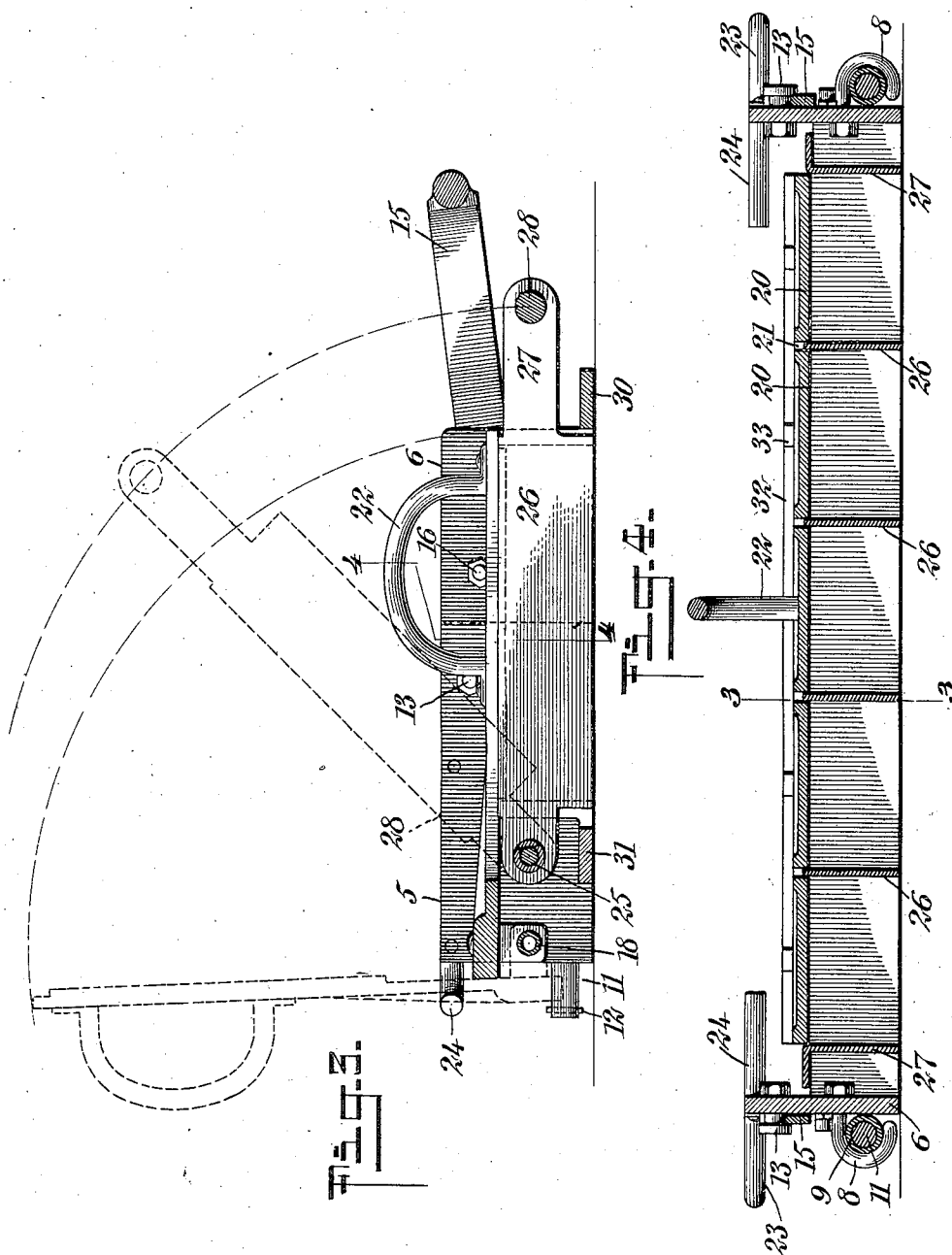
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Herman Besser
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UNITED STATES PATENT OFFICE.

HERMAN BESSER, OF ALPENA, MICHIGAN.

MOLDING-MACHINE.

No. 844,237.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed September 21, 1906. Serial No. 335,576.

To all whom it may concern:

Be it known that I, HERMAN BESSER, a citizen of the United States, and a resident of Alpena, in the county of Alpena and State of Michigan, have invented a new and Improved Molding-Machine, of which the following is a full, clear, and exact description.

My invention relates to molding-machines, my more particular object being to produce a type of machine suitable for molding bricks and blocks of concrete or other plastic material and from which the molded blocks may be readily detached, the machine possessing certain constructional advantages hereinafter described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view showing the mold as open and ready to receive the concrete or other material. Fig. 2 is an end elevation showing the mold as closed and the clamping-plates lowered upon the partially-formed bricks or blocks. Fig. 3 is a vertical cross-section through the molding-machine, showing the same as closed; and Fig. 4 is a vertical longitudinal section through the mold, showing the same as closed.

A molding-box 5 is provided with a separate portion 6, movable relatively thereto. The box 5 is further provided with a bearing-tube 7, connected therewith by means of hook-staples 8. The bearing-tube 9 is mounted upon the portion 6 by means of bolts 10, and mounted centrally within this bearing-tube is a rod 11, provided with a cross-beam 12. This rod is adapted to slide within the bearing-tube 7, so as to allow the part 6 to be pulled a slight distance in a lateral direction from the box 5. Mounted upon opposite sides of the box 5 are headed pins 13. Stop-pins 14 are mounted upon the portion 6 of the box. A handle 15 is mounted upon pivots 16 and is provided with notches 17, adapted to engage the pins 13. The pivot-pin 16 is held in position by a nut 16^a, (see right of Fig. 1,) and the headed pins 13 are each similarly held in position by a nut 13^a. A rod 18 is mounted at the rear of the box 5, and pivotally supported upon this rod is a lid 19. This lid is so shaped as to form tamping-plates 20, separated by slots 21, as will be understood from Fig. 1. These tamping-plates being integral with each other may readily be raised by means of a

handle 22, which is connected with one of them, preferably the one in the center. Handles 23 are mounted upon opposite sides of the box 5 and are used for lifting the same around at will. These handles terminate in portions 23, extending rearwardly of the box, and these portions serve as limiting-stops for the lid 19, as will be understood from Fig. 1. A rod 25 is mounted upon the box 5, extending directly across the same, and pivoted upon this rod 25 are a number of dividing-plates 26, each bearing more or less resemblance to a knife. These dividing-plates are provided with projecting portions 27, through which is threaded a rod 28, serving as a handle. By merely raising this handle all of the dividing-plates 26 are raised as a unit. The two outer dividing-plates 29 are each curved outwardly at the top and provided with slots 30 to allow them to pass the nuts 13^a 16^a. The portion 6 of the box is provided with a foot-plate 30^a, whereby it is strengthened. Another foot-plate 31 is connected with the box 5 and serves to strengthen it. The lid 19 is provided with strengthening-rods 32 33, integral therewith.

The operation of my device is as follows: In order to receive the material to be molded, the machine is brought into the position indicated in Fig. 1—that is to say, the tamping-plates 20 are raised vertically by means of the handle 22. The parts 5 and 6 of the box are brought together, and the handle 15 is brought down into horizontal position, thereby locking these parts together. The dividing-plates 26, if raised, are lowered into position, as indicated in Fig. 1. This is done by aid of the handle 28. The machine is now ready to receive the material to be molded. A hopper is placed over the dividing-plates 26, and the concrete or other plastic material is poured in. The material finds its way by gravity into the mold, occupying the spaces intermediate of the dividing-plates. The mold being filled completely, the hopper is removed, and a straight-edge is employed for striking off the top or superfluous edge of the material to be molded. The tamping-plates 20 are next lowered and forced neatly downward upon the material disposed intermediate of the dividing-plates. The material being tamped, the dividing-plates 26 are raised by means of the handle 28. The handle 22 is next raised, thus carrying the tamping-plates upward into the position indicated in Fig. 1, and then by raising the handle 15

the two parts 5 and 6 of the box may be moved apart, thereby entirely freeing the mold from the concrete blocks or bricks. Previous to the operation above described the molding-machine may be placed upon a pallet, so that when the bricks or blocks are completed they will remain resting upon the pallet and spaced apart by distances representing the thickness of the dividing-plates. If, however, it be desired to mold the blocks or bricks directly upon the ground or upon any level surface, the use of the pallet may of course be discarded. It should be noted that the dividing-plates 26 are removed while the tamping-plates are held in position. This arrangement enables the tamping-plates to prevent the bricks or blocks from being broken in consequence of the withdrawal of the dividing-plates. In other words, the tamping-plates serve the double purpose of enabling the material to be tamped and of holding the blocks or bricks down firmly while the dividing-plates are being withdrawn from between them. It will be noted that the under face of each tamping-plate 20 is fitted neatly into the space to be occupied by a brick or block—that is to say, each clamping-plate has a portion which projects slightly from it and which serves to improve the registry of the tamping-plate relatively to the space to be filled.

The machine is comparatively inexpensive in construction and is exceedingly light and rapid in action. In using this machine it is not necessary for the operator to handle the bricks or blocks until the same are ready to be removed from the pallet or other surface upon which they may rest.

While for convenience the machine is shown as ready to mold blocks resting upon their flat sides, it will be understood that by varying the proportions blocks may be molded upon their edges or even upon their ends, and also that the bricks or blocks may be variously proportioned, according to circumstances.

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

1. A molding-machine comprising a two-part frame adapted to receive the material, means for permitting the movement of the parts toward and from each other, said means comprising tubes connected with one of said parts, and rods connected with the other of said parts and adapted to slide within the tubes, means for locking the parts in

closed position, a plurality of dividing-plates spaced apart from each other and adapted to fit within the box, means for moving said plates in unison into and out of the box, a plurality of tamping-plates, and means for moving said tamping-plates in unison and independently of the dividing-plates.

2. A molding-machine comprising a two-part frame adapted to receive the material, means for permitting the movement of the parts toward and from each other, means for locking the parts in closed position, said means comprising a pin on one of the sections, a handle pivoted to the other section and having a notch for engagement by the pin, a stop-pin on the last-named part for limiting the movement of the handle, a plurality of dividing-plates spaced apart from each other and adapted to fit within the box, a plurality of tamping-plates adapted to fit between the dividing-plates, and means for moving said tamping-plate and said dividing-plates independently of each other.

3. The combination of a two-part box for receiving the materials to be molded, means for locking together the two parts of said box, said means being provided with nuts projecting inwardly, dividing-plates disposed within said box and movable relatively thereto, certain of said dividing-plates being provided with slots for avoiding said nuts, and means for moving said dividing-plates to different angles relatively to said box.

4. The combination of a box to receive the materials to be molded, tamping-plates mounted upon said box and free to swing relatively thereto, and handles mounted upon opposite sides of said box and provided at the rear thereof with inwardly-projecting portions serving as limiting-stops for said tamping-plates.

5. The combination of a box made in two parts, a tube mounted upon one of said parts, a rod connected with the other of said parts and slidably engaging said tube, locking mechanism for securing together the two parts of said box, and means for permitting the molding material to be filled into said box.

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

HERMAN BESSER.

Witnesses:

J. R. McHARG,
BYRON H. OLDS.