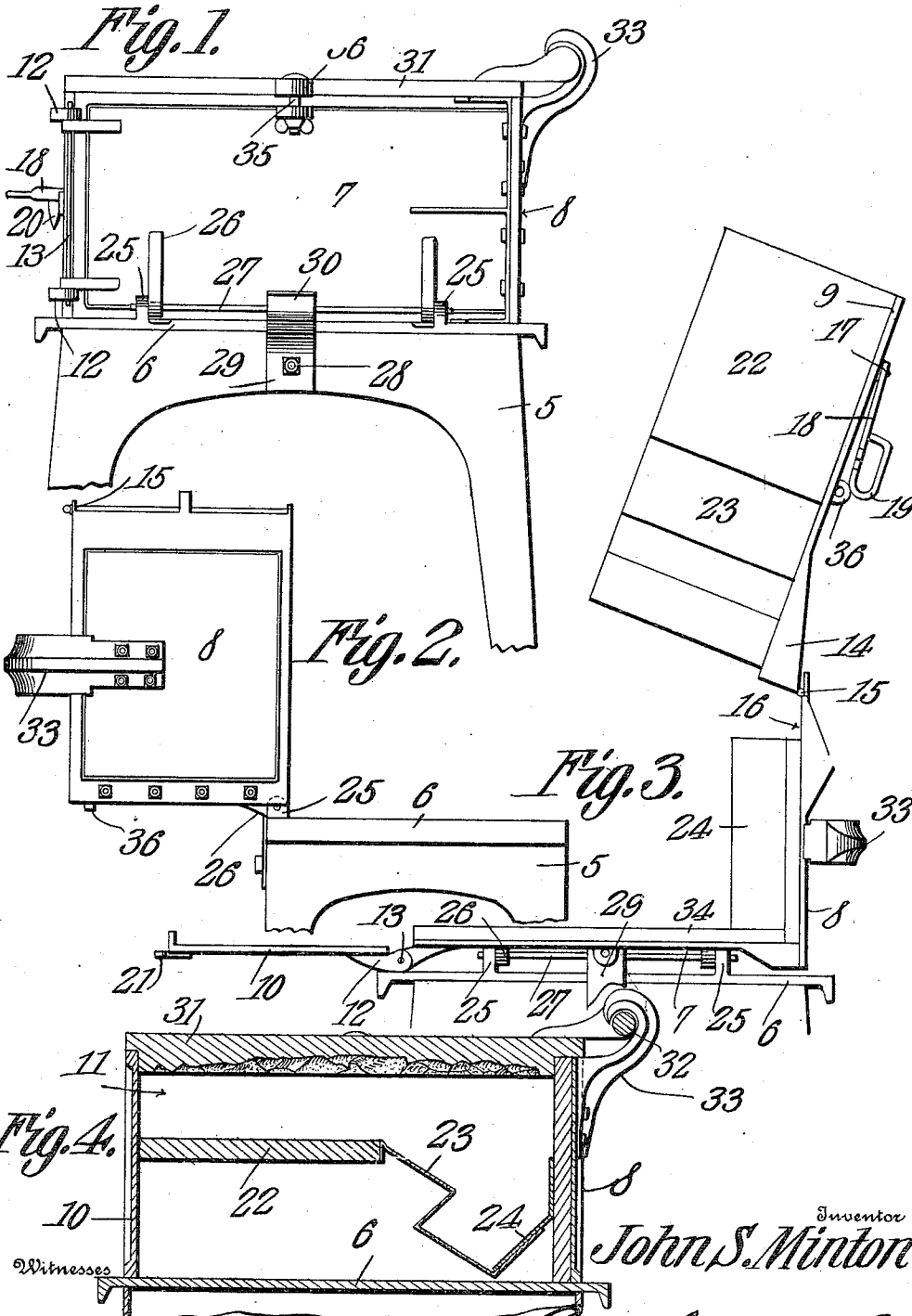


J. S. MINTON.
CONCRETE BLOCK MACHINE.
APPLICATION FILED FEB. 1, 1909.

973,288.

Patented Oct. 18, 1910.



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CONCRETE-BLOCK MACHINE.

973,288.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN S. MINTON, a citizen of the United States, residing at Kearney, in the county of Buffalo and State of Nebraska, have invented a new and useful Concrete-Block Machine, of which the following is a specification.

This invention relates to molds for making artificial stone building blocks of that general class shown and described in United States Letters Patent issued to me on the 12th day of May 1908 under Serial No. 887211.

The object of the invention is to provide a strong, durable and thoroughly efficient machine of the character described by means of which artificial stone building blocks may be economically and expeditiously manufactured.

A further object is to provide an artificial stone block machine including a supporting table having a mold pivotally mounted thereon and provided with pivotally united walls capable of being swung laterally to open position so as to expose the molded product and thus facilitate the removal of the same.

A further object is to provide means for forming one face of the molded brick or block with a roughened surface in the imitation of cut or chipped rock.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification:—Figure 1 is a front elevation of a molding machine constructed in accordance with my invention. Fig. 2 is a side elevation showing the mold tilted laterally preparatory to releasing the side wall. Fig. 3 is a front elevation showing the pivoted side walls moved to open position so as to permit the removal of the molded product. Fig. 4 is a vertical sectional view of Fig. 1.

Similar numerals of reference indicate

corresponding parts in all of the figures of the drawings.

The improved molding machine forming the subject matter of the present invention includes a supporting frame or base preferably formed of metal and provided with a removable top constituting a table 6.

Pivotally mounted for tilted movement on the supporting table 6 is a mold including a relatively stationary side wall 7 to which is rigidly secured a relatively stationary end wall 8, the walls 7 and 8 in conjunction with the movable side wall 9 and movable end wall 10 forming an intermediate compartment 11 for the reception of the cement, concrete or other plastic material constituting the body of the block.

The end wall 10 is provided with vertically alined perforated ears 12 which register with correspondingly perforated ears carried by the relatively stationary side wall 7 to permit the insertion of a pivot pin 13, thereby to allow the end wall 10 to be swung laterally to open position when it is desired to remove the molded product, as will be more fully explained hereinafter.

The side wall 9 is provided with a lateral substantially triangular shaped extension 14 pivotally connected at 15 to the adjacent stationary end wall 8 and which enters a seating recess 16 formed in said end wall when the several walls of the mold are moved to closed position.

Pivotally mounted at 17 on the free end of the side wall 9 is a locking member 18 preferably in the form of a lever having one end thereof provided with a finger loop 19 and its lower face formed with an extension 20 arranged to enter suitable loops or keepers 21 formed on the movable end wall 10, thereby to lock the movable side and end walls in closed position.

Disposed within the molding compartment is a partition 22 and secured to the free end of said partition is an angular shaped plate 23 for forming the block with a hook shaped terminal, as best shown in my former patent above referred to.

The partition 22 and angular shaped plate 23 are carried by the movable side wall 9 and secured to and carried by the stationary end wall 8 is an angular plate 24 which acts with the angular plate 23, thereby to

form one end of the block with an inclined or beveled portion.

Extending vertically from one longitudinal edge of the table 6 are lugs 25 which register with correspondingly shaped lugs 26 secured to or formed integral with the relatively stationary side wall 7 and to which they are pivotally connected by a rod 27 so that the mold is free to swing bodily and laterally to the position shown in Fig. 2 of the drawings when it is desired to discharge the molded product.

The reference numeral 29 indicates a spring arm or bracket which is bolted to the frame 5 in any suitable manner as indicated at 28 and the upper end 30 of which is adapted to support the side 7 of the mold when in open position. The bracket or arm 29 may be of any suitable form and construction.

When it is desired to form the brick or block with a roughened face in imitation of cut or chipped rock a die plate 31 is provided, which latter normally forms a closure for the top of the mold and is provided at one end thereof with a reduced shank terminating in a laterally extending pin 32 arranged to engage an overhanging hook 33 carried by the relatively stationary wall 8.

In operation the walls of the mold are assembled on the supporting table 6 in the manner shown in Fig. 1 of the drawings, after which the pallet 34 is positioned within the mold and in contact with the interior wall of the relatively stationary side section 7, the cement, concrete or other plastic material being subsequently introduced within the molding compartment and tamped in the usual manner. When it is desired to mold the block with a roughened face, the die plate 31 is swung downwardly to form a closure for the top of the mold and locked in closed position by clamping bolts 35 extending through vertically aligned perforated lugs 36 carried by the die plate and side walls 7 and 9, respectively. After the cement has sufficiently set the mold is moved bodily on the pivot rod 27 to the position shown in Fig. 2 of the drawings, after which the locking lever 19 is released and the wall 10 swung downwardly and the side wall 9 swung upwardly on the pivot 15 to the position shown in Fig. 3 of the drawings, and in which position the molded brick or block will be supported on the pallet 34 so that the same may be readily removed from the machine and carried to the drying racks for use.

When it is desired to form a corner block the angular plate 24 is detached from the end-plate 8 and the angular wall 23 of the mold extended laterally in engagement with the adjacent wall thereof.

If desired, the mold may be used for making hollow blocks by removing the tempo-

rory partition 22 and the angular plates 23 and 24 and inserting suitable core members within the molding compartment.

Having thus described the invention what is claimed is:—

1. A machine of the class described comprising a supporting frame including a table, a mold pivotally mounted for swinging movement on the table and having stationary and movable walls, an overhanging hook secured to one of the stationary walls, and a die plate forming a closure for the top of the mold and having a removable pivotal engagement with said hook.

2. A machine of the class described comprising a supporting frame including a table, a mold having one wall thereof pivotally connected with one longitudinal edge of the table, perforated lugs carried by the side walls of the mold, a hook secured to one of the end walls thereof, a die plate forming a closure for the top of the mold and provided with an enlargement for pivotal connection with the hook, perforated lugs extending laterally from the die plate, fastening devices extending through the lugs of the die plate and side walls of the mold for clamping the die plate in position on said mold and a partition disposed within the mold and provided with an angular extension for forming the block with a rearwardly extending hook.

3. A machine of the class described comprising a supporting frame including a table, a mold supported on the table and provided with rigidly connected walls, one of which is pivotally connected with the table, independently movable walls pivotally connected with the rigidly united walls, means for locking the walls in engagement with each other, a partition disposed within the mold and provided with an angular portion, an overhanging hook carried by one of the stationary walls, and engaging the angular portion of the partition, a die plate having a pivotal engagement with said hook, and means for locking the die plate in engagement with the side walls of the mold.

4. A machine of the class described comprising a supporting frame including a table, a mold pivotally mounted on the table and comprising rigidly united side and end walls, said end wall being formed with an extension provided with a recess, co-acting independently movable side and end walls, one of which is pivotally connected with the extension of the first mentioned end wall and is seated in the recess in said end wall, the other movable wall being pivotally connected with the first mentioned side wall, means for locking the movable walls in engagement with each other, a die plate forming the top of the mold, said mold being movable laterally on its pivotal connection with the table and one of the independently

movable walls thereof being adapted to be swung laterally on its pivotal connection to permit the discharge of the molded product, and means for supporting the mold in dis-
5 charging position.

5. A machine of the class described comprising a supporting frame including a table, a mold pivotally mounted on the table and including parallel side and end walls, a
10 partition disposed within the mold and secured to one of the end walls thereof, an angularly disposed plate carried by the partition, and an angularly disposed plate carried by the opposite end wall and arranged

to over-lap the angularly disposed plate of the partition, said mold being movable laterally on its pivotal axis to permit the discharge of the molded product, and means for supporting the mold in discharging position.
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In testimony that I claim the foregoing as my own, I have hereto affixed my signature
20 in the presence of two witnesses.

JOHN S. MINTON.

Witnesses:

B. A. FLICK,
FRED BRYANT.