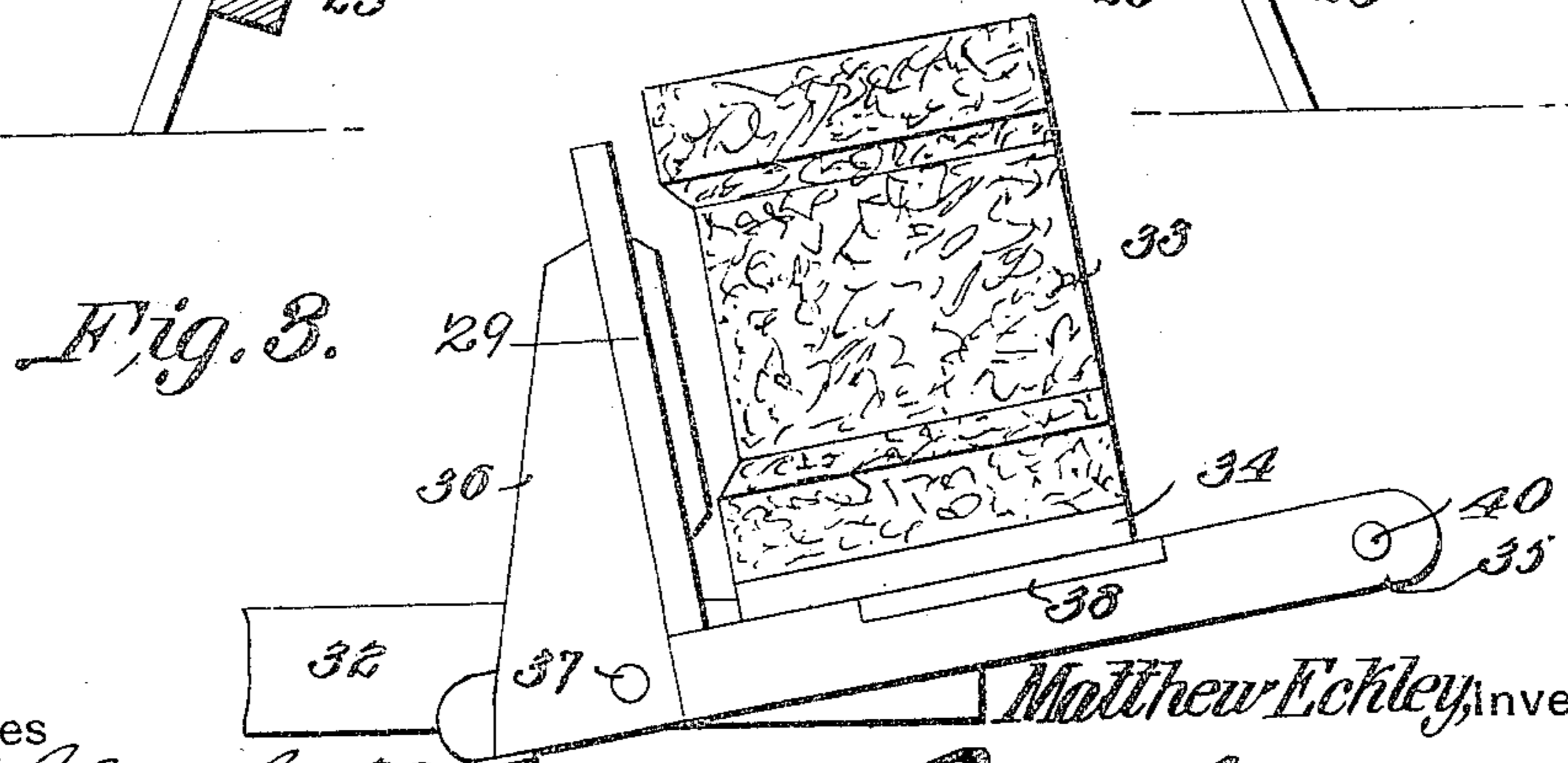
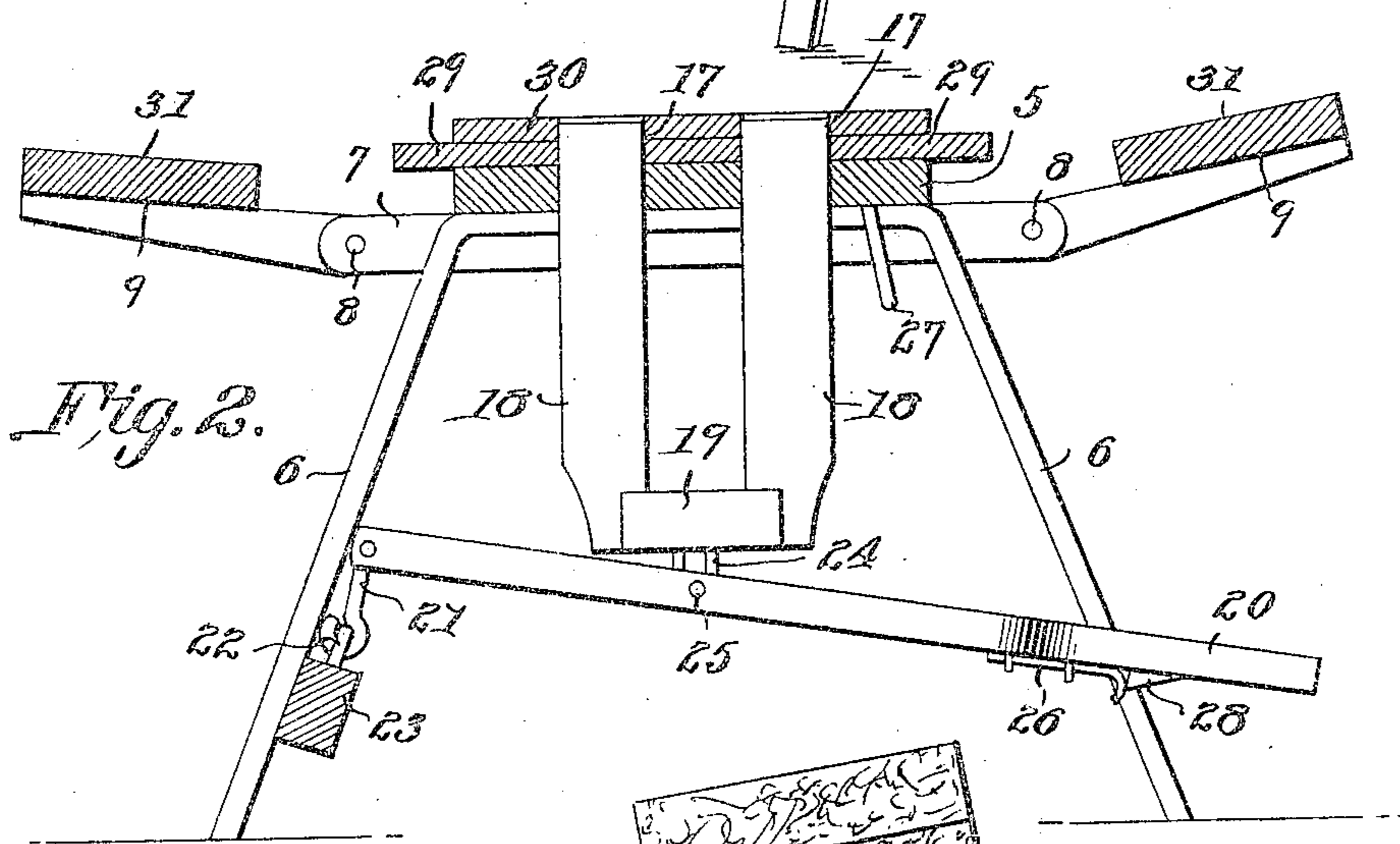
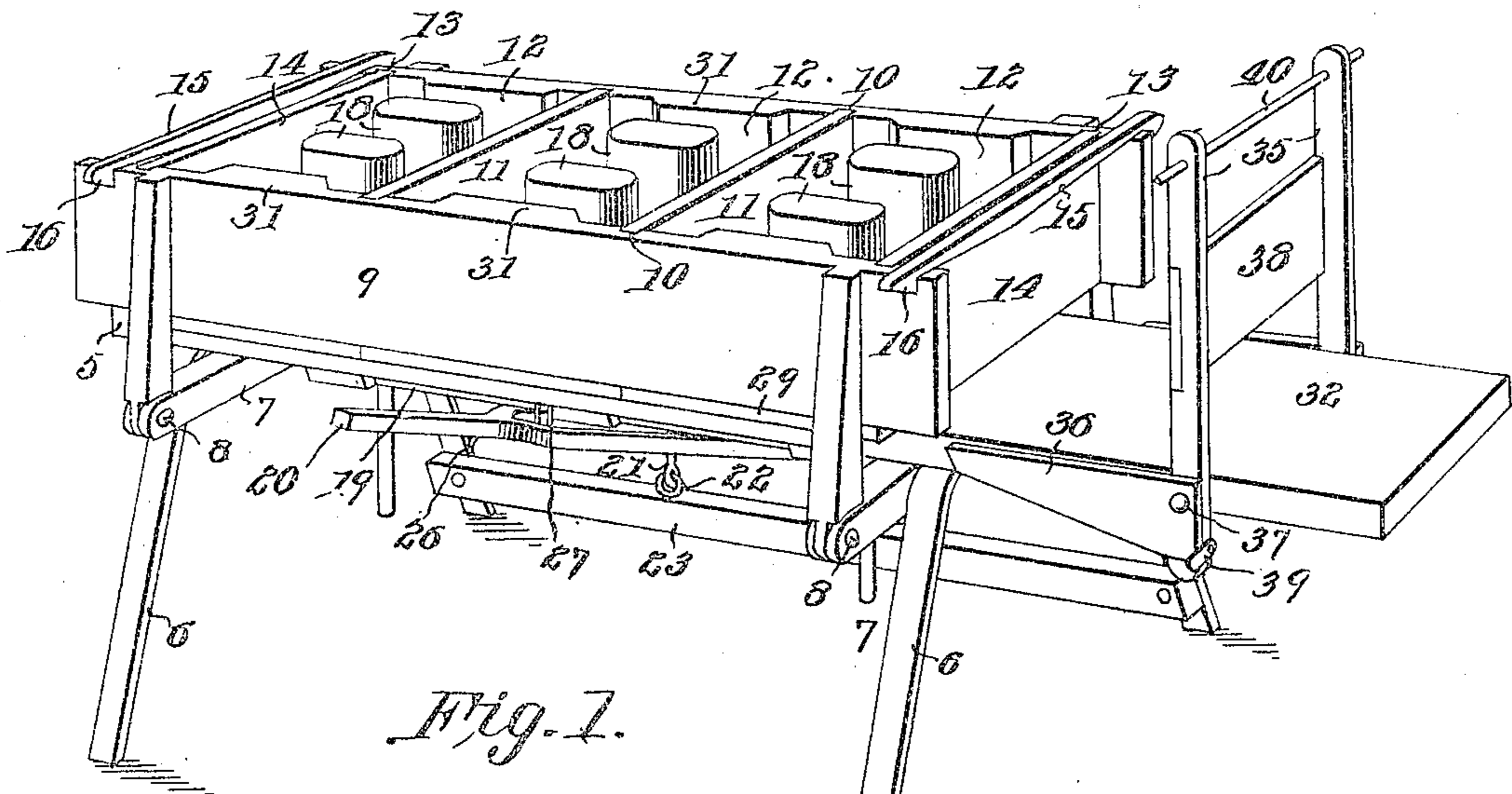


No. 808,643.

PATENTED JAN. 2, 1906.

M. ECKLEY.
CEMENT BLOCK MACHINE.
APPLICATION FILED JUNE 21, 1905.



Witnesses

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UNITED STATES PATENT OFFICE.

MATTHEW ECKLEY, OF ARCHBOLD, OHIO.

CEMENT-BLOCK MACHINE.

No. 808,643.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed June 21, 1905. Serial No. 266,363.

To all whom it may concern:

Be it known that I, MATTHEW ECKLEY, a citizen of the United States, residing at Archbold, in the county of Fulton and State of Ohio, have invented a new and useful Cement-Block Machine, of which the following is a specification.

This invention relates to an improved machine for making artificial-stone building-blocks, and has for its object to provide an inexpensive, durable, and efficient device of this character by means of which a plurality of blocks may be conveniently manufactured at one operation of the machine.

A further object of the invention is to provide means for transferring the molded block from the pallet to the receiving-board, so that the blocks may be carried on said board to the drying-racks without danger of cracking or otherwise defacing the same while still in a plastic condition.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims herewith appended, it being understood that various changes in form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming a part of the specification, Figure 1 is a perspective view of a machine constructed in accordance with my invention. Fig. 2 is a transverse sectional view of the same, showing the pivoted walls thereof open and the cores withdrawn. Fig. 3 is a side elevation of a portion of the bed of the mold, showing the manner of transferring the blocks to the receiving-board.

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

The improved device, which may be constructed of wood, metal, or other suitable material, comprises a base or bed plate 5, to which are nailed, riveted, or otherwise rigidly secured the legs or standards 6. Secured to the bottom of the bed-plate 5 are transverse bars 7, to which are pivoted, as indicated at 8, the movable side walls 9 of the mold, said walls being provided with coincident vertically-disposed grooves or recesses 10 for the reception of division-plates 11, the

latter dividing the mold into a plurality of molding chambers or compartments 12. The side walls 9 are also provided with aligned terminal recesses 13, adapted to secure the removable end walls 14 of the mold, the latter walls being held in engagement with the side walls 9 by means of transverse locking-bars 15, the terminal laterally-extending lugs 16 of which engage said side walls, as shown.

Formed in the bed-plate 5 are a plurality of core-receiving openings 17, in which are mounted for vertical movement reciprocating core members 18, the latter being secured to a core-carrying beam 19, extending longitudinally of the machine beneath said bed-plate. The core members 18, two of which are preferably arranged within each molding compartment or chamber, are moved to operative and inoperative positions by means of an operating-lever 20, one end of which is bifurcated or pivoted with pivoted links 21, which engage loops or eyes 22, secured in any suitable manner to a longitudinal bar 23, fastened to the legs or standards 6. The bifurcated end of the operating-lever is pivotally connected to the core-carrying bar 19 by loops or staples 24, which engage suitable pins 25, extending transversely of the lever, thereby permitting the cores 18 to travel on a vertical plane when the lever is elevated or depressed. Secured to the free end of the operating-lever is a sliding bolt or catch 26, adapted to engage a staple 27, fastened to the bottom of the bed-plate 5, so that when the lever is operated to elevate the core members said lever may be securely locked against accidental movement by causing the bolt to engage said staple. One end of the bolt 26 is curved, as shown, for engagement with a lug or stop 28, depending from the lever 20, to thereby limit the longitudinal movement of said bolt. Disposed within the molding-chamber are compartments, and resting on the bed-plate 5 are removable pallets 29, to which are secured stationary cores 30, the latter being perforated to permit the passage of the movable core members 18, there being similar stationary core members 31 secured to the movable side walls of the mold, as shown.

One end of the bed-plate 5 is preferably extended beyond the supporting legs or standards 6 to form a table 32, adapted to receive the pallets 29 and blocks 33 after the latter have been removed from the mold.

Pivoted to the opposite sides of the bed extension or table 32 is a tilting frame adapted to transfer the molded block from the pallet 29 to a receiving-board 34, so that the block
 5 may be conveniently carried to the drying-racks or other suitable place until sufficiently hard for use. The tilting frame comprises a pair of right-angularly-disposed arms 35 and 36, pivoted to each other and to the table 32,
 10 as indicated at 37, the upper ends of the arms 35 being connected by bar 38, while the lower ends thereof are pivoted with laterally-extending spring-fingers 39, which bear against the angular arms 36 and yieldably support
 15 said arms at right angles to the arms 35. The arms 35 are also connected by a rod 40, which serves to operate said frame.

In operation, the mold being in the closed position, (shown in Fig. 1 of the drawings,) the
 20 cement, concrete, or other material is shoveled or otherwise introduced into the several compartments or chambers of the mold and thoroughly tamped, after which the upper surface is tunneled off and the molded blocks
 25 exposed by withdrawing the core members and releasing the end walls and intermediate partitions, thereby permitting the side walls of the mold to be moved to the open position. (Shown in Fig. 2.) The pallets supporting
 30 the blocks are then successively placed upon the table 32 immediately over the angular arm 36 of the tilting frame, the receiving-board 34 having been previously placed in position against the arms 35 of said frame. The op-
 35 erator then grasps the handle or rod 40 and tilts the frame downwardly toward the bed-plate 5, which causes the block to be transferred from the pallet to the receiving-board and upon which it may be conveniently car-
 40 ried to the drying-racks. The pallet is then replaced in the molding-compartment and the frame tilted upwardly to its former position ready to receive the pallet and block of next compartment, the operation being con-
 45 tinued until all of the blocks have been removed from the mold.

While the machine is shown with only three molding-chambers, it will of course be understood that the same may be construct-
 50 ed so as to form any number of blocks and that suitable pattern-plates may be inserted in said chambers for molding the exposed faces of the blocks in imitation of cut or chipped rock or other ornamental design.

55 From the foregoing description it will be seen that there is provided an extremely simple and inexpensive machine admirably adapted for the attainment of the ends in view.

60 Having thus described the invention, what is claimed is—

1. In a machine for making hollow concrete blocks, the combination with a mold, of
 65 a bed-plate having one end thereof extended beyond the mold, and a block-supporting

frame mounted for tilting movement on said extension.

2. In a machine for making hollow concrete blocks, the combination with a mold, of a bed-plate having one end thereof extended
 70 beyond the mold, and a block-supporting frame pivoted to said extension and mounted for tilting movement thereon.

3. In a machine for making hollow concrete blocks, the combination with a mold, of
 75 a bed-plate having one end thereof extended beyond the mold, and a tilting block-supporting frame pivotally mounted on said extension and provided with angularly-disposed arms for changing the position of the
 80 blocks.

4. In a machine for making hollow concrete blocks, the combination with a mold, of a bed-plate having one end thereof extended
 85 beyond the mold, and a tilting block-supporting frame pivotally mounted on said extension for changing the position of the blocks, the horizontal arms of said frame being normally disposed in the same longitudinal plane with the bed-piece.
 90

5. In a machine for making hollow concrete blocks, the combination with a mold, of a bed-plate having one end thereof extended
 95 beyond the mold, a tilting block-supporting frame pivotally mounted on said extension and provided with angularly-disposed arms for changing the position of the blocks, and laterally-extending spring-clips secured to one of said arms and engaging the pivoted end of the adjacent arm.
 100

6. In a machine for making hollow concrete blocks, the combination with a mold, of a bed-plate having one end thereof extended
 105 beyond the mold, a block-supporting frame mounted for tilting movement in the extension and comprising angularly-disposed arms pivoted to said extension on each side thereof, and a rod connecting said arms and constituting a handle for operating the frame.

7. In a machine for making hollow concrete blocks, a mold comprising a bed-plate having side walls pivoted thereto, detachable
 110 end walls engaging the side walls, locking-bars for securing said walls in closed position, vertically-reciprocating cores movable to operative position within the mold, an operating member pivotally connected with the
 115 cores, and means for locking the operating member in elevated position.

8. In a machine for making hollow concrete blocks, a mold comprising a bed-plate,
 120 side walls pivoted thereto and provided with spaced vertical grooves, detachable end walls engaging the side walls, removable partitions seated in the grooves of said side walls and
 125 dividing the mold into a plurality of molding compartments or chambers, vertically-reciprocating cores movable to operative position within the molding compartment, an operating member pivotally connected with the
 130

cores, a loop secured to the bed-plate, and a locking-bolt carried by the operating member for securing the latter in elevated position.

5 9. In a machine for making hollow blocks, a mold comprising a bed-plate, side walls pivoted thereto, detachable end walls engaging the side walls, partitions dividing the mold into a plurality of molding-compartments or
10 chambers, a removable pallet seated on the bed-plate in each compartment, vertically-reciprocating cores movable to operative position within the mold, an operating member pivotally connected with the cores, and means
15 for locking said operating member in elevated position.

10 10. In a machine for making hollow blocks, a supporting-frame, a bed-plate secured thereto, side walls pivoted to the bed-plate, detachable end walls engaging the side walls,

vertically-reciprocating cores movable to operative position within the mold, an operating member pivotally connected with the cores, a bar extending longitudinally of the supporting-frame, a link pivoted to said bar 25 and to one end of the operating member, a pivoted connection between the intermediate portion of said operating member and the cores, a loop secured to the bed-plate, and a bolt slidably mounted on one end of the operating member and adapted to engage said 30 loop for locking the operating member in elevated position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature 35 in the presence of two witnesses.

MATTHEW ECKLEY.

Witnesses:

J. S. JEWELL,

GEORGE SANGSTON.