No. 817,008. PATENTED APR. 3, 1906.

D. A. SCHOENEMAN.

MOLDING MACHINE.

APPLICATION FILED JULY 20, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

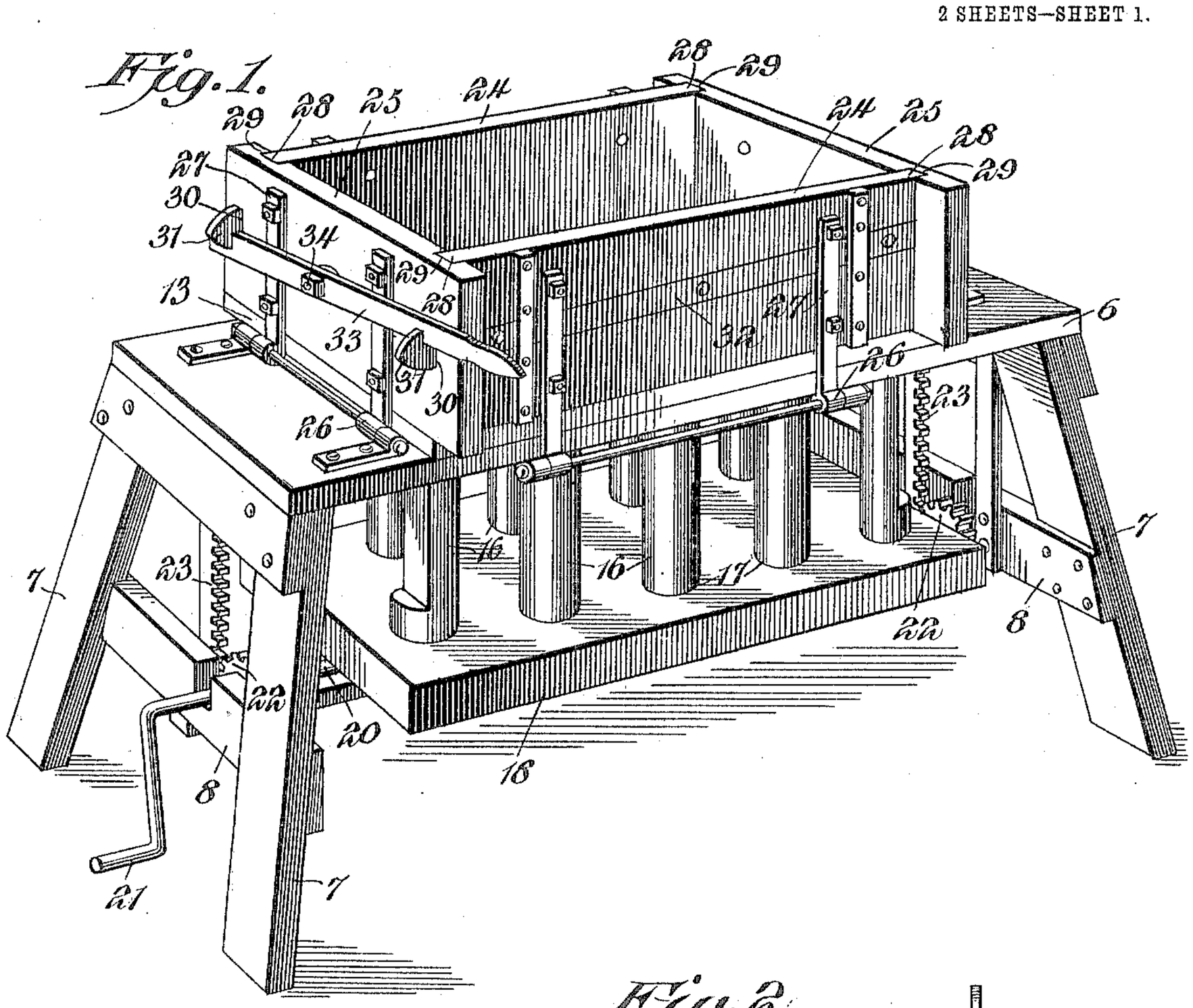
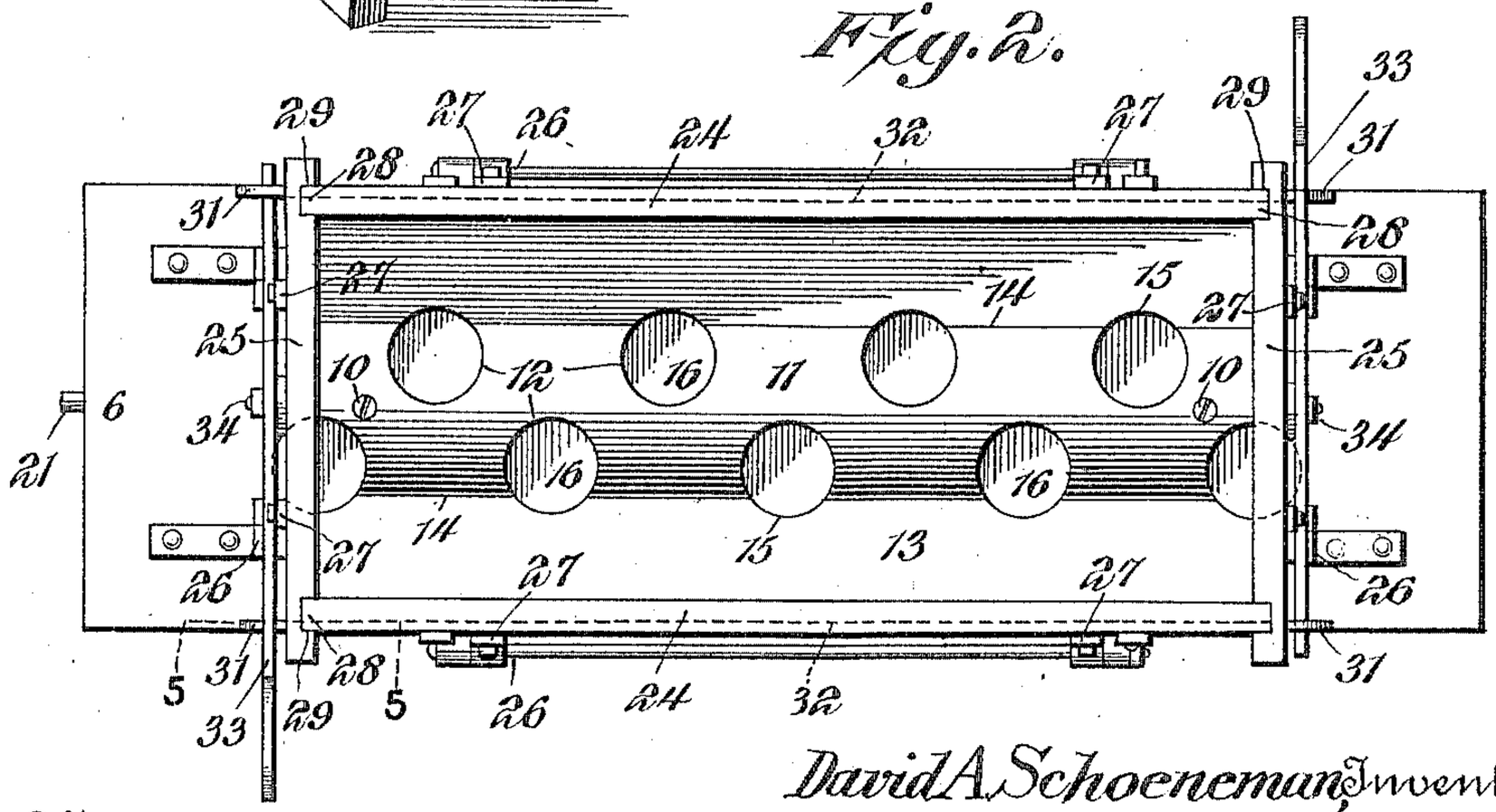


Fig. 2.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 3.

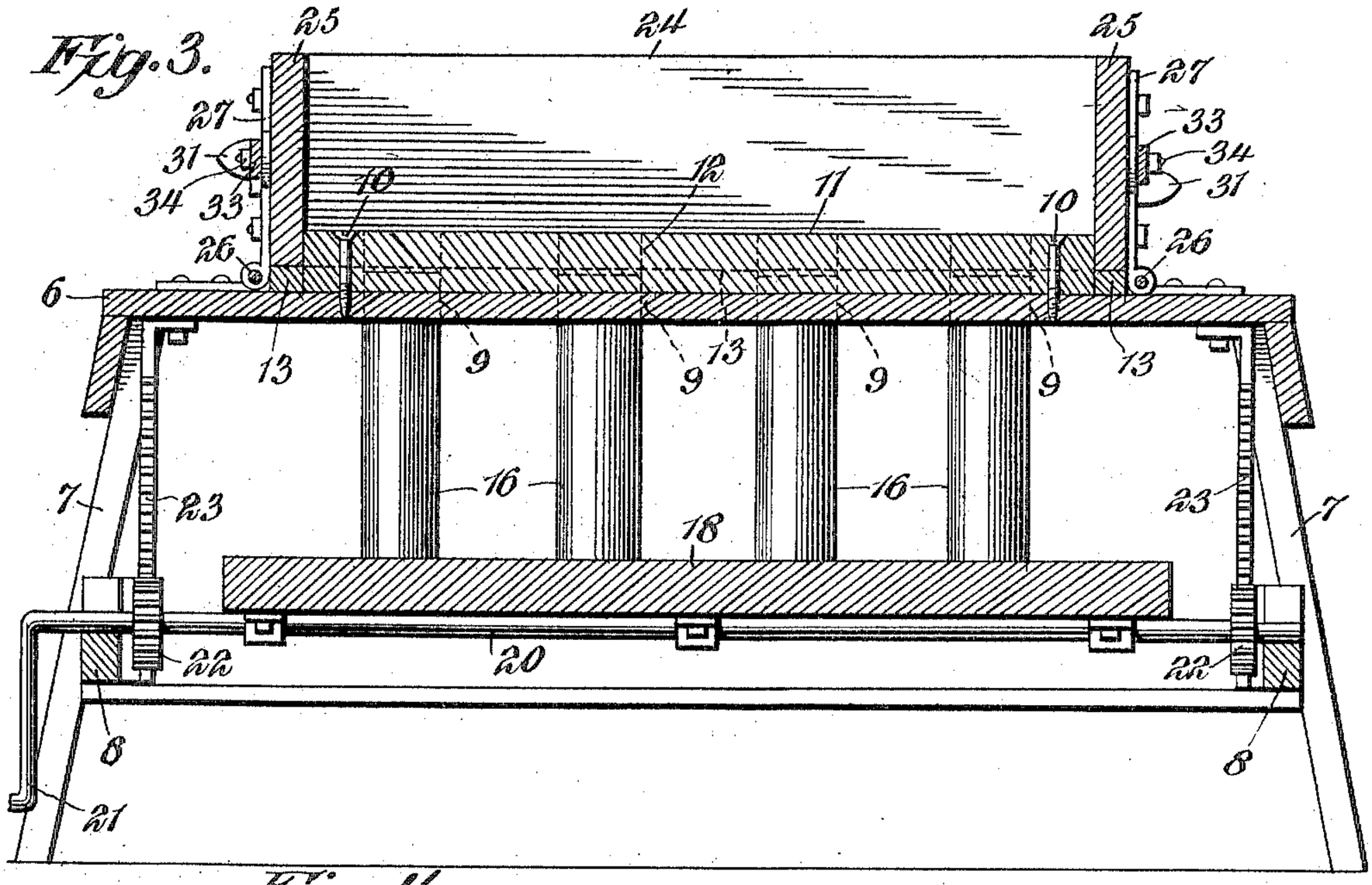


Fig. 4.

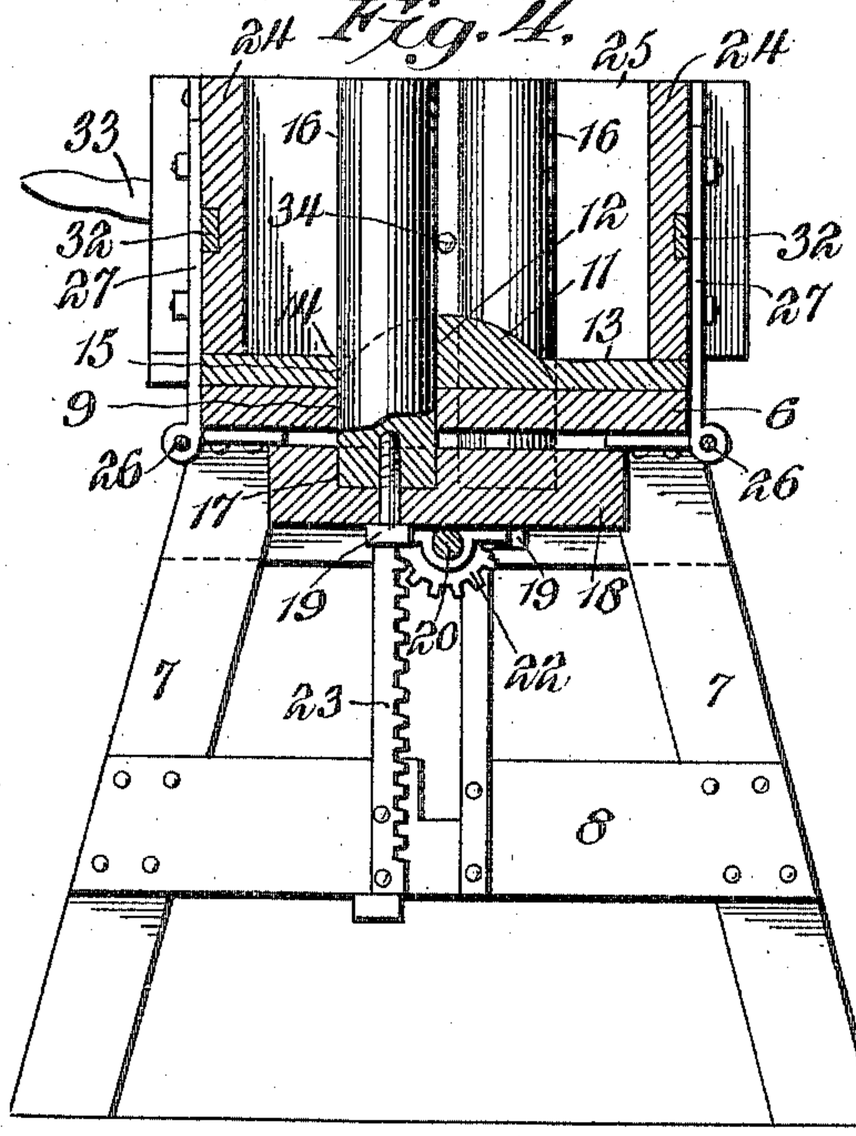
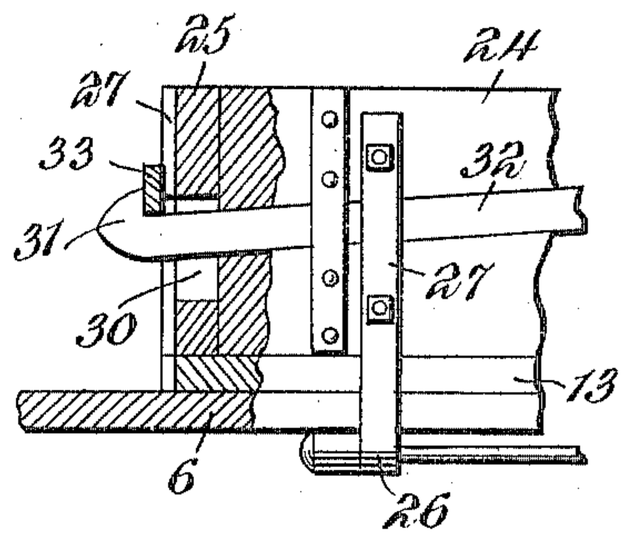


Fig. 5.



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UNITED STATES PATENT OFFICE.

DAVID A. SCHOENEMAN, OF GEORGE, IOWA.

MOLDING-MACHINE.

No. 817,008. Specification of Letters Patent. Patented April 3, 1906.

Application filed July 20, 1905. Serial No. 270,558.

To all whom it may concern:

Be it known that I, DAVID A. SCHOENEMAN, a citizen of the United States, residing at George, in the county of Lyon and State of Iowa, have invented a new and useful Molding-Machine, of which the following is a specification.

This invention relates more particularly to improvements in machines for manufacturing concrete and similar composite blocks for building purposes.

One of the principal objects is to provide novel, efficient, and simple means whereby building-blocks having openings therethrough for the circulation of air, and more particularly of the character disclosed in a copending application, Serial No. 270,557, may be readily produced with rapidity and at small cost.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of the machine. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal sectional view through the machine. Fig. 4 is a cross-sectional view. Fig. 5 is a detail sectional view on the line 5 5 of Fig. 2.

In the embodiment illustrated a support is employed comprising a bed 6, mounted on legs 7, that are suitably braced, as shown at 8, said bed having a double row of openings 9 disposed in staggered relation. Mounted upon the bed and preferably detachably secured thereto by fasteners 10 is a longitudinally-disposed stationary core member 11, semicylindrical in form and having openings 12 alined with the openings 9 in the bed, the openings 12 cutting through the opposite side edges of the stationary core member 11.

A pallet 13 is mounted upon the bed and has an opening 14, that receives the core member 11, said pallet thus completely surrounding the core member, as shown in Figs. 3 and 4. This pallet has recesses 15, which coöperate with the openings 12 through the core member 11, so as to complete the same. Other core members 16 in the form of cylinders disposed transversely of the core member 11 are slidable vertically through the openings 9 and 12, the core members 16 having their lower ends seated in sockets 17 of a base-plate 18, movably mounted beneath the bed 6, said core members 16 being held in place by suitable bolts 19. Journaled upon the under side of the base-plate 18 is a shaft 20, having at one end a handle-crank 21 and being, furthermore, provided with pinions 22, meshing with stationary vertical racks 23, secured to the frame of the machine. It will thus be seen that by turning the crank 21 the base-plate, and consequently the core members carried thereby, can be readily elevated or depressed.

The mold-body consists of side walls 24 and 25, hinged, as shown at 26, to the bed 6, certain of the leaves 27 of the hinges extending transversely of the walls and reinforcing the same. The ends 28 of the walls 24 are received in grooves 29, formed in the walls 25, and the terminals of said walls 25 project beyond the outer sides of the walls 24. Through said walls 25 are formed openings 30, through which are adapted to pass hooks 31, carried by bars 32, longitudinally set into the walls 24. The hooks at the end of each bar are oppositely turned. Levers 33 are pivoted between their ends, as shown at 34, to intermediate portions of the walls 25, and these levers are arranged to interlock with the projecting terminals of the hooks 31, as clearly shown in Fig. 1. It will be observed that the lower edges of the walls 24 and 25 when said walls are set up rest upon the margins of the pallet 13, and thus securely hold the same in place.

In molding a block the pallet is first placed in position upon the core member 11, and the side walls are then set up and locked, after which the core members 16 are elevated, as shown in Fig. 4. The concrete is thereupon placed in the mold and thoroughly tamped, after which the core members 16 are dropped, the walls are swung outwardly, and the block is removed, the pallet being detached and supporting the same. Another pallet is placed in position and the operation repeated. Thus it will be seen that blocks may be effectively manufactured with ease and expedition. Moreover, the structure is simple and made up of parts which are not liable to become deranged.

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

1. In a molding-machine, the combination with a support, of side walls movably mounted thereon, a stationary core member mounted on the support between the side walls, another core member movably associated with the stationary member, means for moving the movable member, and a pallet removably mounted on the support, said pallet being independent of and removably associated with the core members.

2. In a molding-machine, the combination with a support, of side walls movably mounted thereon, a longitudinally-disposed stationary core member mounted on the support between the side walls, a transverse core member sliding through the stationary member, means for moving the movable member through the longitudinal member, a pallet removably mounted on the support, said pallet being independent of and removably associated with the core members, and movable mold-walls mounted on the support.

3. In a molding-machine, the combination with a support, of mold-walls, a longitudinally-disposed stationary upstanding core member mounted on the support and located inside the walls, said member terminating short of the mold side walls and having transverse openings, a pallet removably mounted on the support and extending on opposite sides of the core member between the same and the side walls and a plurality of upright movable core members operating through the openings and being movable into and out of the space inclosed by the walls.

4. In a molding-machine, the combination with a supporting-bed having openings, of a longitudinally-disposed stationary core member mounted on the bed and having openings alined with the openings of the bed, a removable pallet mounted on the bed and having an opening through which the core member projects, a plurality of upright cores slidably mounted in the alined openings, means mounted beneath the bed for raising and lowering the cores, and walls hinged to the bed and arranged to inclose the core members.

5. In a molding-machine, the combination with a bed, of a pallet removably mounted thereon, angularly-disposed side walls all hinged to the bed independently of the pallet and movable to set-up position with their lower edges resting upon the margins of the pallet, and means for holding said walls in set-up condition.

6. In a molding-machine, the combination with a bed, of a pallet removably mounted thereon and having an opening, a core supported by the bed and projecting through the opening, angularly-disposed side walls all hinged to the bed independently of the pallet and movable to positions upon the pallet, and means connecting the walls for holding said walls in set-up condition.

7. In a molding-machine, the combination with a bed having openings therethrough, of a stationary longitudinally-disposed core member mounted on the bed and having openings through its opposite side portions, said openings being alined with the openings in the bed, a pallet removably mounted on the bed and surrounding the core member, said core member projecting above the pallet, side walls hinged to the bed and movable to set-up positions with their lower edges in spaced relation to said bed, said lower edges resting upon the pallet, means for connecting the walls to maintain the same in set-up condition, a plurality of upright core members slidably mounted through the openings in the bed and longitudinal core member, a base supporting said upright core members, a shaft journaled on the base and having pinions, and upright stationary racks mounted beneath the bed and having the pinions in mesh therewith.

8. In a molding-machine, the combination with a bed, of angulary-disposed walls hinged thereto and movable to set-up position, certain of said walls projecting beyond the others and having grooves that receive the ends of the other walls, said other walls having terminal hooks that extend through openings in the projecting walls, and holding-levers pivoted on said projecting walls and engaging the portions of the hooks that extend therethrough.

9. In a molding-machine, the combination with a bed having openings therethrough, of a stationary longitudinally-disposed core member mounted on the bed and having openings through its opposite side portions, said openings being alined with the openings in the bed, a pallet removably mounted on the bed and surrounding the core member, said core member projecting above the pallet, side walls hinged to the bed and movable to set-up positions with their lower edges in spaced relation to said bed, said lower edges resting upon the pallet, means for connecting the walls to maintain the same in set-up condition, a plurality of upright core members slidably mounted through the openings in the bed and longitudinal core member, and means for operating the upright core members.

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

DAVID A. SCHOENEMAN.

Witnesses:
C. D. LYKENS,
G. R. DE BOER.