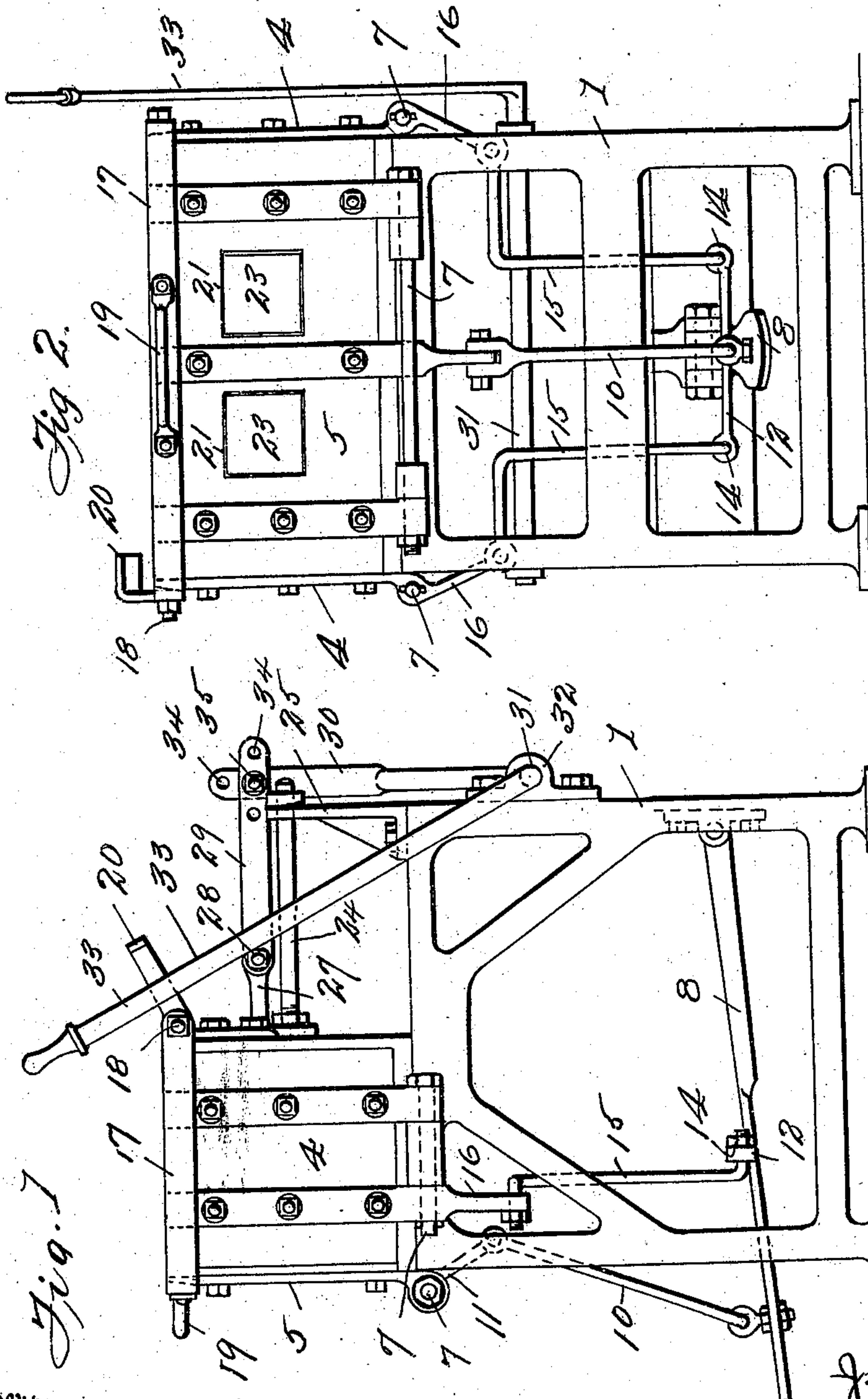


No. 847,764.

PATENTED MAR. 19, 1907.

J. H. GRAHAM.
CONCRETE BLOCK MACHINE.
APPLICATION FILED OCT. 18, 1906.

2 SHEETS—SHEET 1.



Witnesses
Chas. A. Davies,
John Brown

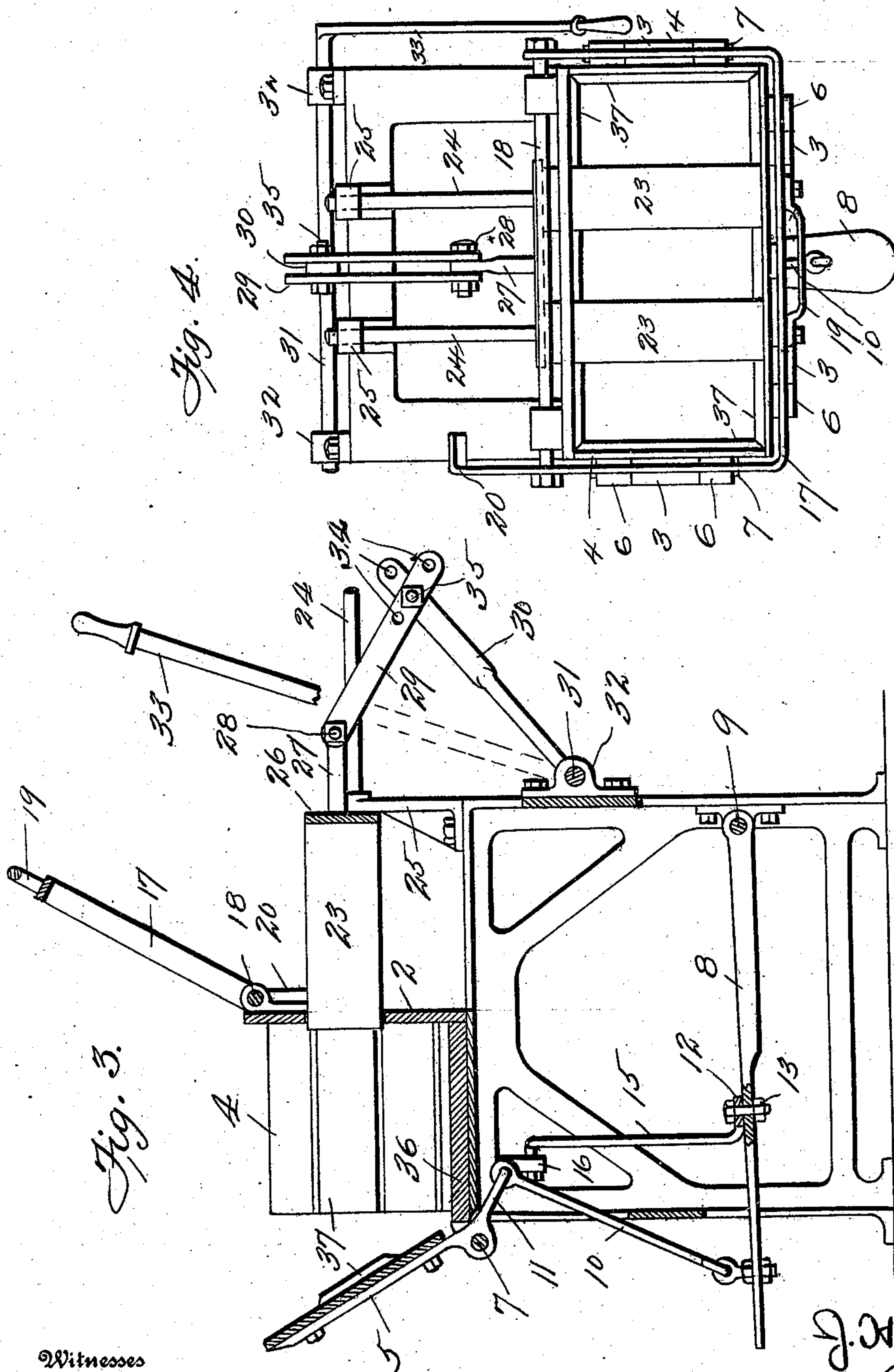
Inventor
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2 SHEETS—SHEET 2.



Witnesses

Char. A. Davis.

John D. Davis.

By

Inventor

J. H. Graham

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UNITED STATES PATENT OFFICE.

JOSEPH H. GRAHAM, OF KEMPTON, INDIANA.

CONCRETE-BLOCK MACHINE.

No. 847,764.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed October 18, 1906. Serial No. 339,478.

To all whom it may concern:

Be it known that I, JOSEPH H. GRAHAM, a citizen of the United States, residing at Kempton, in the county of Tipton and State of Indiana, have invented certain new and useful Improvements in Concrete-Block Machines, of which the following is a specification.

This invention relates to new and useful improvements in concrete-block machines, and particularly to an improved mold employed in connection therewith.

The invention embodies specifically a mold having separable side and end walls which are disassembled in order to remove the finished block therefrom; and it is a primary object to provide novel means for simultaneously assembling and disassembling said walls.

In connection with the various other elements of the invention novel means are provided for moving the cores into and out of the mold-box.

The invention aims, as a general object, to provide a machine of the above type which shall be simple in construction, inexpensive to manufacture, and practical and efficient in use.

The detailed construction will appear in the course of the following description, in which reference is had to the accompanying drawings, forming a part of this specification, like numerals designating like parts throughout the several views, wherein—

Figure 1 is a side elevation of a machine constructed in accordance with my invention. Fig. 2 is a front elevation thereof. Fig. 3 is a central longitudinal section thereof, and Fig. 4 is a top plan view thereof.

Referring specifically to the accompanying drawings, the numeral 1 designates a supporting-frame upon which the elements of the invention are mounted in their operative relation. The mold embodied in my invention comprises a stationary back wall 2, rigidly secured upon the frame 1, the latter being in the form of an open table and extending transversely thereof. The frame 1 is provided along its upper edges with laterally-extending looped straps 3, which serve as members of a hinged connection for the swinging side walls 4 and the front walls 5. The latter are provided at their lower ends with looped straps 6, through which the connecting pintle 7 extends. In their pivotal suspension from the frame 1 means are provided for swinging said walls 4 and 5 upon

the pintles 7, such means comprising an actuating foot-lever 8 and connections between the same and the several pivoted walls. The lever 8 is pivoted, as at 9, to the rear portion of the frame 1 and adjacent its forward end has pivotal connection with a link 10, in turn pivoted to a downward extension 11 of the front wall 5. Rearwardly of the link 10 a transverse bar 12 is carried upon the lever 8, a connecting-bolt 13 passing centrally through said bar. The bar 12 at its ends has pivotal connection, as at 14, with L-shaped links 15, which at the ends of their shorter horizontal legs are in turn pivoted to downward extensions 16, provided upon the side walls 4. For the purpose of clamping and locking the walls 4 and 5 in their closed position, as is shown in Fig. 1, a U-shaped clamping yoke 17 is pivoted at the top of the rear wall 2, as at 18, and is designed to surround the walls 4 and 5. The yoke 17 is provided with a handle or grip 19 for ease of manipulation and with a rearward extension 20, designed to engage the rear wall 2 as a stop to limit the rearward motion of said yoke.

The walls 2 and 5 are cut away, as at 21, to afford spaces for the movement therethrough of cores 23, provided with rearwardly-extending shanks 24, which project through and have movement in brackets 25, provided upon the frame 1 and coacting with the wall 2 to form a support for said cores. The cores 23 are connected at their rear ends by a transverse strap 26, provided with a rearwardly-extending post 27, having pivotal connection, as at 28, with the end of a link 29, in turn pivotally connected to the upper end of an arm 30, provided upon a transverse shaft 31. The shaft 31 rocks in bearings 32, provided upon the rear portion of the frame 1, and at one end thereof carries a handle 33. The connection between the link 29 and the arm 30 is adjustable, said link and said arm being provided with a plurality of openings 34 for the reception through any registering pair thereof of the pivot-pin 35. The frame 1 serves to support the mold-pallet 36, upon which the block is formed. For the purpose of forming the face of the block of the desired shape ribs 37 are provided upon the several walls.

In operation, assuming that the machine has its elements disposed in the relation shown in Fig. 3 and it is desired to form a block, the foot-lever 8 is depressed, and in this action through the connections 10 and

15 the side walls 4 and the front wall 5 are swung upwardly on their pivot. Said walls will remain in their closed position, since in such disposition the connections extend
 5 along a line dead central of the lever 8. For the purpose of holding the walls closed against the pressure of the material as it is initially introduced therein the frame 17 is swung downwardly, as is shown in Fig. 1.
 10 The handle 33 is then grasped and swung to rock the shaft 31 and through the connections described to move the cores 23 inwardly from the position of Fig. 3 to the position of Fig. 4. The material is then introduced into the mold and tamped, and the
 15 block when formed is removed, the mold being disassembled in the following manner: The side walls 4 are grasped along their upper edges and are simultaneously swung
 20 downwardly upon their pivot. This action serves to throw the various connections with the lever 8 out of their dead-central position and to allow the walls to drop by gravity until the several extensions 11 and 16 carried
 25 thereby engage the underneath surface of the frame 1. The pallet 36, together with the block, is then raised. It will of course be understood that before the walls 4 and 5 are dropped the yoke 17 is raised.
 30 It will be readily appreciated that the walls 4 and 5 may be faced so as to afford any desired design for the face of the block, such as natural rock. The arrangement or cores may be varied by the provision of vertically-
 35 movable cores or by increasing or decreasing the number thereof in accordance with the circumstances of use.

While the elements herein shown and de-

scribed are well adapted to serve the functions set forth, it is obvious that various 40 minor changes may be made in the proportions, shape, and arrangement of the several parts without departing from the spirit and scope of the invention as defined in the appended claim.

Having fully described my invention I 45 claim—

A concrete-block machine comprising a supporting-table, a lever pivoted at its rear end to the rear portion of said table adjacent 50 the floor and having its front portion projecting beyond the front portion of said table to afford a foot-piece, a mold supported on said table and comprising a stationary rear wall and pivoted front and side walls adapted 55 for outward swinging movement, said front and side walls having depending extensions beyond their pivots, a rigid link having at its upper end pivotal connection with the extension of said front wall, and at its lower end 60 pivotal connection with said lever adjacent the forward end thereof, a cross-bar provided upon said lever and having portions projecting on each side of said lever at substantial right angles thereto, and L-shaped links in- 65 terposed between said cross-bar and said side walls, each of said links comprising horizontal portions pivoted to the extensions of said side walls and perpendicular depending portions pivoted to the ends of said cross-bar. 70

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH H. GRAHAM.

Witnesses:

DAVID P. HOBACK,
 JOHN A. DAY.