No. 816,488. PATENTED MAR. 27, 1906.

F. F. MARTIN.

CEMENT BLOCK MOLDING MACHINE.

APPLICATION FILED APR. 11, 1905.

3 SHEETS—SHEET 1.

Fig. 1.

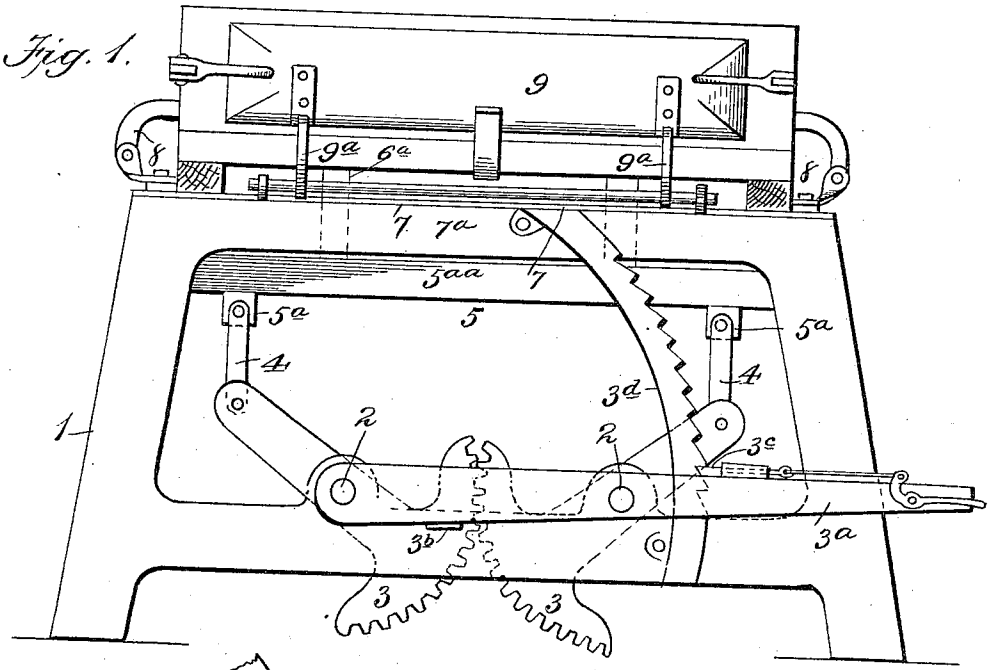
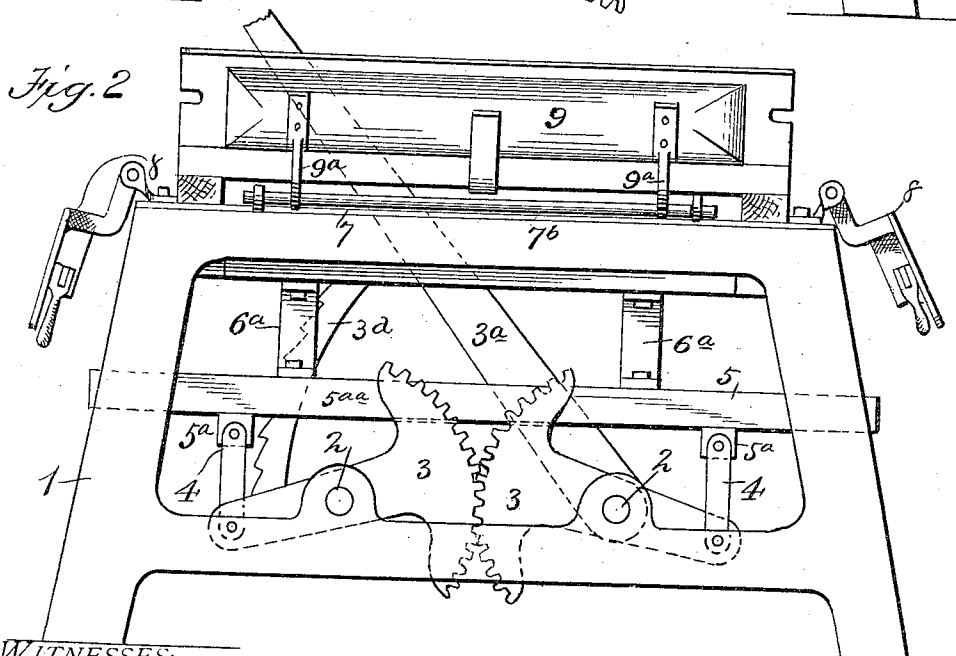


Fig. 2



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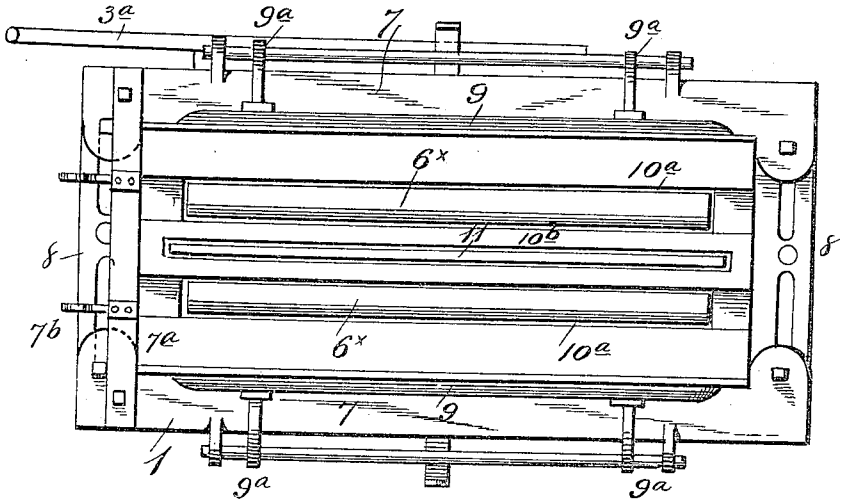
3 SHEETS—SHEET 2.

Fig. 3.



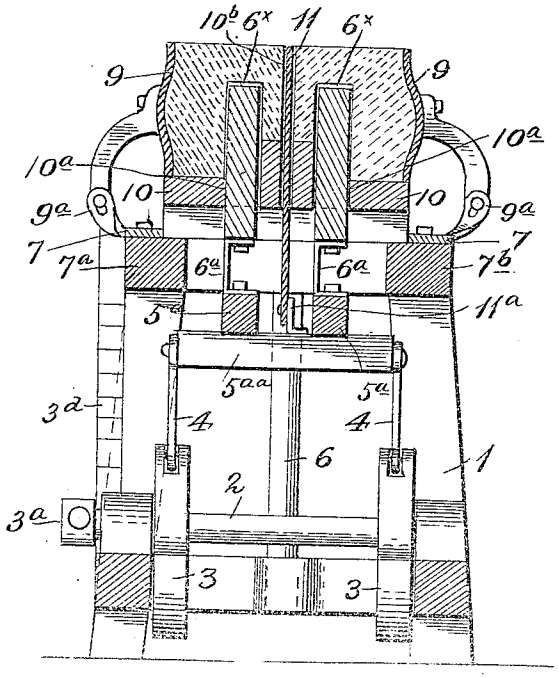


Fig. 4.

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3 SHEETS—SHEET 3.

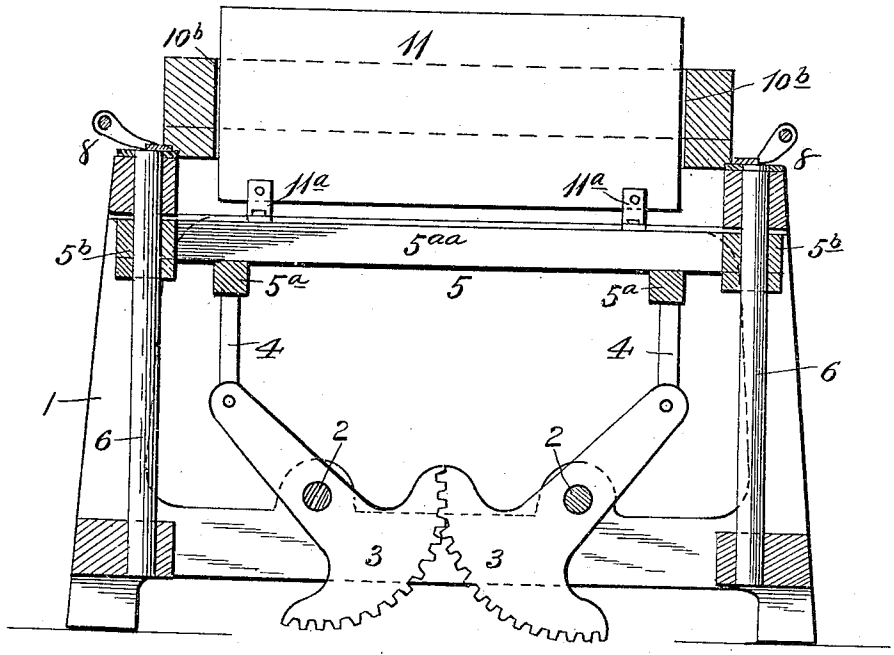

Fig. 5.

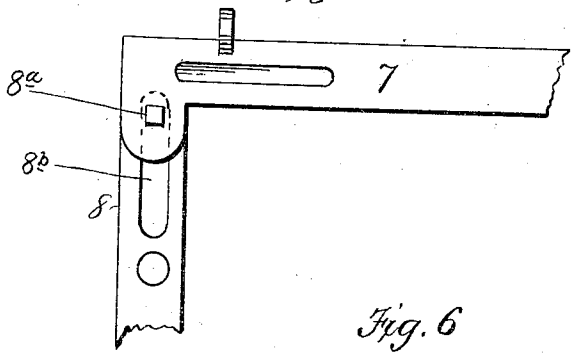

Fig. 6.

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UNITED STATES PATENT OFFICE.

FRANK F. MARTIN, OF BELOIT, WISCONSIN.

CEMENT-BLOCK-MOLDING MACHINE.

No. 816,488. Specification of Letters Patent. Patented March 27, 1906.

Application filed April 11, 1905. Serial No. 255,018.

To all whom it may concern:

Be it known that I, FRANK F. MARTIN, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented new and useful Improvements in Cement-Block-Molding Machines, of which the following is a specification.

My invention relates to improvements in molding-machines, especially for making cement blocks.

It has for its object, among other things, to provide for molding or making a number of blocks at a single operation of the machine; to effect the adjustment of the cores for varying the thickness of the block; to enable the molding of any of the various forms or kinds of building-bocks now made, and to carry out these ends in a simple, expeditious, and effective meanner.

Said invention consists of certain structural features and the combination and arrangement of parts substantially as hereinafter fully disclosed and particularly pointed out.

In the accompanying drawings, Figure 1 is a side elevation of a block-molding machine, disclosing the preferred embodiment of my invention. Fig. 2 is an opposite side view thereof. Fig. 3 is a plan view of the same. Fig. 4 is a vertical transverse section, and Fig. 5 is a vertical longitudinal section, of the machine. Fig. 6 is a fragmentary plan view of portions of one side and one end of the base-forming member of the mold.

In the disclosure of my invention I mount in a suitable frame or support 1 upon rock shafts or rods 2, bearing therein, intergeared pairs of toothed quadrants or sectors 3, connected at their outer ends by links or rods 4 to the ends of cross-bars 5^a, secured to the under sides of the longitudinal bars 5^{aa} of a supplemental frame or carriage 5. Said sectors or quadrants are effective for coaction, the shaft of one pair thereof having secured thereto a manually-actuated lever 3^a, and which lever is suitably braced in position by effecting connection, preferably as at 3^b, between said lever and the top edge of one of said sectors or quadrants. Said lever is suitably equipped with a spring or automatically pressed detent 3^c, adapted to engage a holding-rack 3^d, secured to the frame 1, said detent being controlled by a finger-actuated or supplemental lever 3^e, suitably connected to said detent and pivoted upon the lever 3^a. Said frame or support 5 is guided in its movement by and has passing through apertures in its end bars 5^b rods 6, suitably secured in the bottom and top end bars of the main frame or support 1. Said carriage 5 has suitably supported or superposed thereon a suitable height or distance therefrom, preferably by brackets or arms 6^a, duplicate bars or cores $6^\times$, preferably rectangular in cross-section and of the requisite dimensions, said arms or brackets being fixed at their ends to said carriage and cores.

Preferably adjustably applied to the top of the main frame 1 upon its longitudinal or lateral bars, as at 7^a 7^b, are additional bars 7. Also suitably applied or hinged to the top of said frame at its ends are plates 8, forming the end members of the mold. To the bars 7 are suitably hinged or pivoted, as at 9^a, additional plates 9, each having a plane or a configurated surface to produce, for instance, upon the molded product or block a "rock-face" imitation, said latter plates forming the lateral mold members. The bars 7 and plates 8, forming the base, lateral, and end portions of the mold members, are adapted to partially overlie one another and have their thus opposed surfaces provided with engaging set-screws 8^a and slots 8^b for varying the adjustment of the lateral and end walls or members of the mold as occasion may require.

Upon the main frame 1 is placed the block-off-bearing "palate" 10 or the bottom member of the mold of any suitable construction and having lateral longitudinal openings 10^a therein for the passage therethrough of the cores $6^\times$, said palate also having therein a central longitudinal slot or slit 10^b for the reception of an edgewise-arranged plate or partition 11, secured also by brackets or arms 11^a to the core-carrying frame or carriage 5.

In operation the cement or material is filled and suitably tamped in the mold, presumably the cores $6^\times$ and partition 11 having been previously adjusted to the required altitude or position within the mold, according to the thickness of wall it may be desired to impart to the prospective block. After the contents of the mold have received the proper treatment—been shaped and dressed off to produce the requisite block formations—the cores, together with the partition, are suitably depressed or withdrawn from the mold, the resultant plurality of blocks are borne off upon the palate 10 for drying by manually removing the latter, as will be

appreciated. Of course the relative height of the partition or plate 11 and the cores 6× will be such that the former may always be effective for the formation of two blocks, while the latter may be varied or controlled as to their adjustment regarding the thickness of the walls of the blocks, as will be readily understood.

By the requisite adjustment of the side and end walls of the molds it is obvious that blocks of varying dimensions may be produced. Also it is noted that with this machine blocks of any of the various styles or formations previously adopted may be molded thereon.

Latitude is allowed as to details herein, as they may be changed without departing from the spirit of my invention.

I claim—

1. A machine of the character described, comprising a stationary upright frame-support, end and lateral mold members arranged thereon and constituted of base portions one partially overlying the other and provided in their thus opposed surfaces with engaging slots and set bolts or screws, respectively, and of hinged or pivoted ends and sides proper connected to said base portions, and adapted for mutual retention in operative position.

2. A machine of the character described, comprising a stationary upright frame-support end and lateral mold members arranged thereon and constituted of base portions one partially overlying the other and provided in their thus opposed surfaces with engaging slots and set-screws, respectively, and of hinged or pivoted ends and sides proper connected to said base portions and adapted for mutual retention in operative position, a vertically-movable frame or carriage sliding upon the aforesaid frame-support and bearing duplicate cores and a partition arranged equidistantly between said cores, said cores and partition being received within the chamber formed by said mold members, and actuating mechanism for said core and partition-bearing carriage.

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

FRANK F. MARTIN.

Witnesses:

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