

C. COLWITZ.
MACHINE FOR MOLDING CONCRETE BLOCKS.
APPLICATION FILED MAY 8, 1909.

940,131.

Patented Nov. 16, 1909.

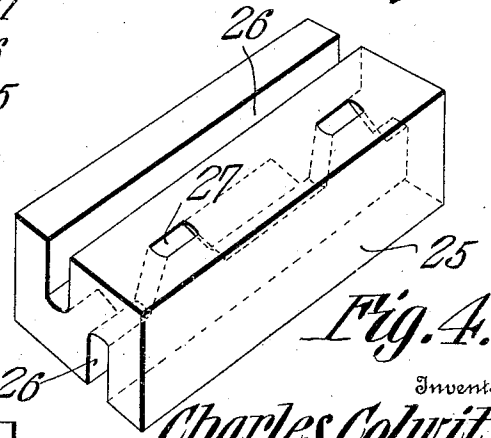
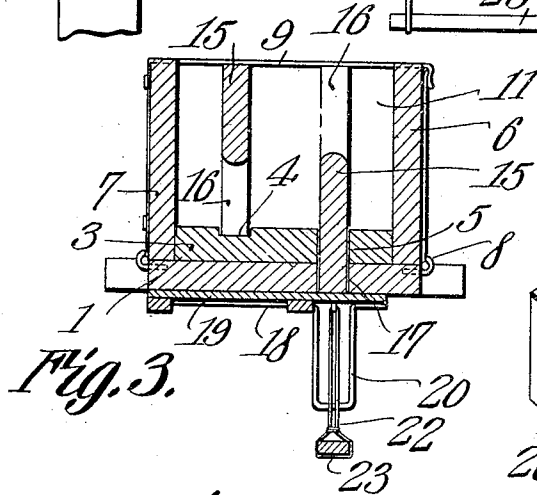
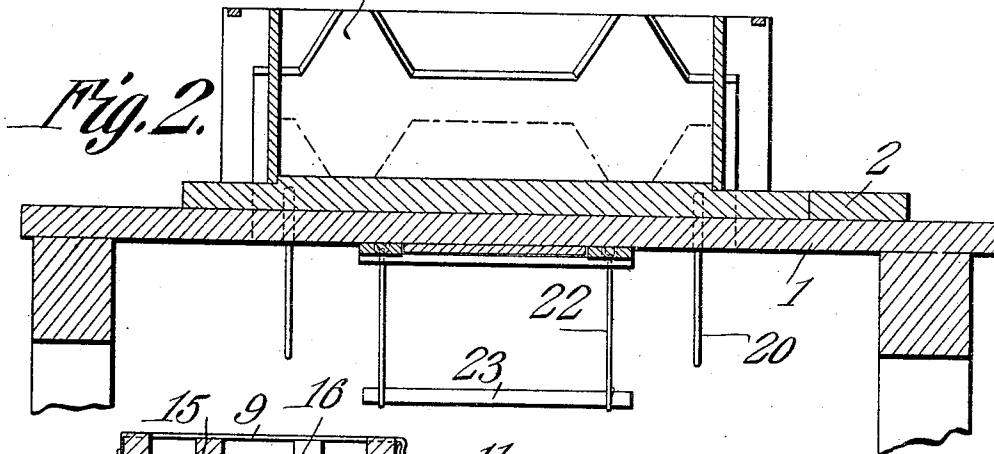
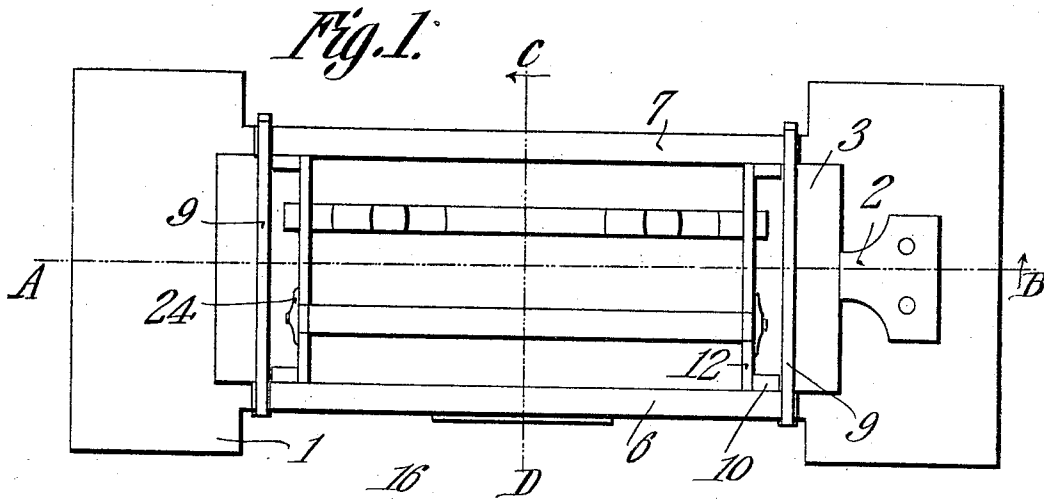


Fig. 5.

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UNITED STATES PATENT OFFICE.

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MACHINE FOR MOLDING CONCRETE BLOCKS.

940,131.

Specification of Letters Patent.

Patented Nov. 16, 1909.

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To all whom it may concern:

Be it known that I, CHARLES COLWITZ, a citizen of the United States, residing at Shiocton, in the county of Outagamie and State of Wisconsin, have invented a new and useful Machine for Molding Concrete Blocks, of which the following is a specification.

This invention relates to molds for use in the manufacture of blocks of concrete or other plastic material, the object of the invention being to provide a machine of this type for forming blocks having opposed longitudinal channels the inner walls of which have vents opening through the block.

A further object is to provide a mold having separately removable cores movable in opposite directions from the mold, guides being provided for preventing displacement of the cores while being shifted.

With these and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings: Figure 1 is a plan view of the machine. Fig. 2 is a section on line A—B of Fig. 1. Fig. 3 is a section on line C—D of Fig. 1. Fig. 4 is a perspective view of a block such as produced in the mold. Fig. 5 is an elevation of one of the end panels.

Referring to the figures by characters of reference 1 designates a table having a block 2 thereon constituting an abutment for the pallet 3, there being a longitudinal groove 4 within the upper face of the pallet adjacent one edge thereof and a longitudinal slot 5 in said pallet adjacent the other edge thereof, both the groove and the slot being equidistant from the longitudinal center of said pallet.

Parallel front and rear panels 6 and 7 are hingedly connected to the table 1 as indicated at 8, these panels being designed to swing into position at right angles to the table and against the longitudinal edges of the pallet 3, there being tie devices on clasps 9 secured to one of the said panels, for example the panel 7, and designed to engage the opposed panel so as to hold the two panels upright. Retaining cleats 10 are arranged upon the end portions of the inner faces of the panels 6 and 7 and constitute

abutments for the end panels 11 and 12. The two panels 11 and 12 are similar in construction and each has a slot 13 extending therein from its upper edge and another slot 14 extending therein from its lower edge, the two slots being arranged adjacent opposed ends of the panels and both having their inner ends rounded as clearly indicated in Fig. 5. These slots are designed to aline with the groove 4 and the slot 5. The two cores used in connection with the mold are somewhat similar and each consists of a strip 15 having one straight longitudinal edge while angular projections extend from the opposed edge. The ends of the cores are shaped to fit snugly within the slots 13 and 14 and the angular projections 16 of one of the cores are designed to rest within the groove 4. The other core has its straight longitudinal edge lowermost and projects through the slot 5 and also into a longitudinal slot 17 formed within the table 1 and registering with the slot 5. Transversely extending guides 18 are arranged upon the bottom of the table top and slidably mounted between them is a supporting member 19 on which rests that core which is located within the slots 5 and 17. When the two cores are arranged within the mold, the projections 16 of one resting within the groove 4 and the longitudinal edge of the other resting upon the member 19, the uppermost portions of the two cores will be in the same plane with the upper edges of the side and end panels of the mold.

Guide loops 20 extend downwardly from the table and are arranged under the end portions of the slot 17, these loops being designed, when the guide 19 is withdrawn from under the slot 17, to receive the core 15 thereabove. Cords 22 are secured to the core which is mounted on the slide 19 and these cords are attached to end portions of a foot piece 23. The core 15 which is mounted within the groove 4 is preferably provided with buttons 24 designed to be turned so as to lap the walls of the slots 14 in which the core is mounted and thus prevent longitudinal movement of the core.

In using the mold herein described, the slide 19 is pushed into position below the slot 17 and the pallet 3 is arranged upon the table and against the block 2. The front and rear panels 6 and 7 are then elevated and held together by means of strips 9 after which the end panels 11 and 12 are inserted

between the front and rear panels and assume position against the cleats 10. One of the cores 15 will rest upon the slide 19 and projects upwardly through the slots 17 and 5 into the slots 14 in the end panel while the other core will rest within the groove 4 and project into the slots 13 in the end panel the buttons serving to prevent longitudinal displacement of said core. After the parts 10 have thus been assembled concrete is placed in the mold and tamped and after it has properly set the slide 19 is shifted from under the slot 17 and the core 15 thereabove is pulled downwardly by placing the foot on 15 the strip 23 and forcing it down. Said core will thus assume a position below the upper surface of the pallet 3 and within the hangers 20. The other core 15 is then raised from the slots 13 after which the side panels 20 6 and 7 are swung outwardly from the molded block and the end panels 11 and 12 then removed. The pallet 3 with the block thereon is then removed from the table and another pallet substituted therefor.

25 As shown in Fig. 4 the block obtained by the use of the mold herein described consists of a polyhedral body 25 having longitudinal channels 26 in opposite faces thereof and equidistant from the longitudinal center of the body, each channel being formed 30 with tapered vents 27 extending entirely through the body. It will be apparent therefore that when a wall is constructed of blocks such as herein described continuous air passages will be formed therein by reason of 35 the fact that each channel 26 will communicate with the corresponding channels of the adjoining blocks through the vents 27.

It is of course to be understood that various 40 changes may be made in the construction and arrangement of parts without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:

45 1. A mold including a supporting structure, a longitudinally slotted pallet removably mounted on said structure, there being a slot within the structure and registering with the slot in the pallet, front and rear 50 panels hingedly connected to the support-

ing structure, said pallet being interposed therebetween, end panels detachably secured to the side panels and bearing on the pallet, said pallet having transverse shoulders constituting abutments for the end panels, there 55 being slots extending into said end panels from the top and bottom edges thereof, a core removably mounted within the upper slots in the end panels and having projecting portions bearing on the pallet, a core 60 slidably mounted within the slots in the pallet and supporting structure, and removably mounted in the lower slots in the end panels, means for supporting said last mentioned core above the pallet, and means for 65 shifting said core downwardly within the slots.

2. A mold including a slotted table, front and rear panels hingedly connected to the table, retaining cleats on said panels, end 70 panels interposed between the front and rear panels and bearing against the cleats, a pallet extending under the end panels and between the front and rear panels, said pallet having a slot registering with the slot in the 75 table, a core slidably mounted within the registering slots and projecting into slots in the end panels, means connected to the table for supporting the core and means for lowering the core within the slots. 80

3. The combination with a table having a slot therein and guide loops extending downward from the table and under the slot, of front and rear panels hingedly connected to the table, end panels interposed therebetween, 85 a pallet insertible under the end panels and between the side panels, said pallet having a slot registering with the slot in the table, a core slidably mounted within the registering slots and projecting into slots 90 in the end panels, means for supporting the core between the panels, and means for lowering the core into the guide loops.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature 95 in the presence of two witnesses.

CHARLES COLWITZ.

Witnesses:

F. H. WASHBURN,
W. W. HUNTER.