No. 854,613. PATENTED MAY 21, 1907.

D. N. THOMAS & L. O. BURK.

MOLD.

APPLICATION FILED AUG. 11, 1906.

Fig. 1.

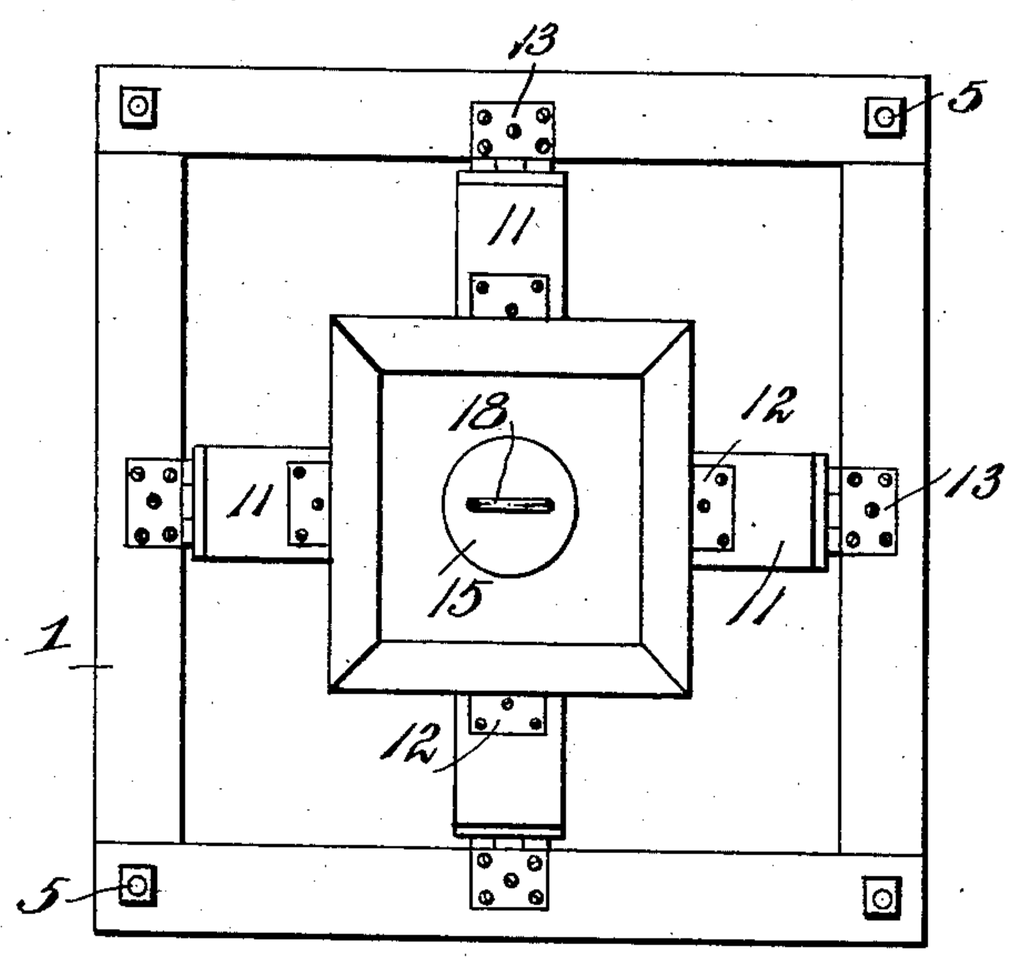


Fig. 2.

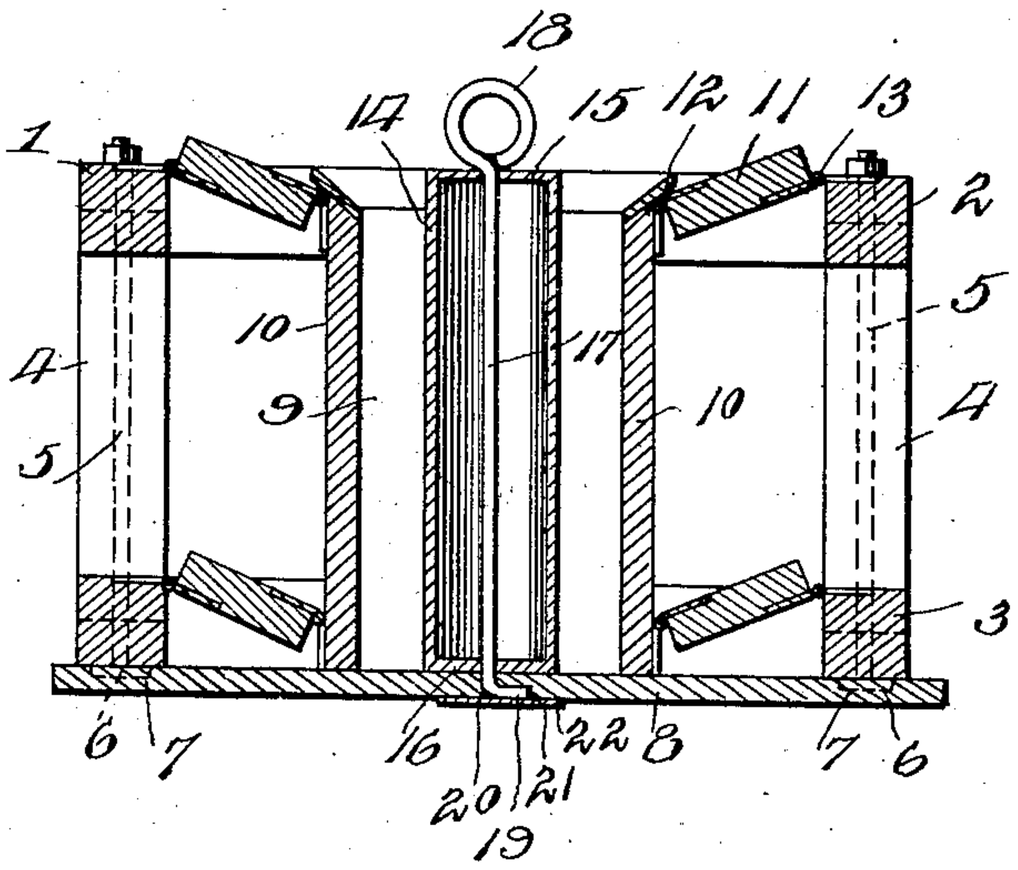
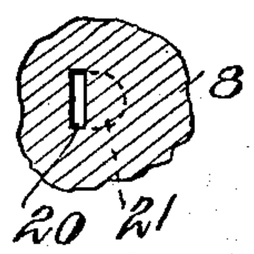


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MOLD.

No. 854,613. Specification of Letters Patent. Patented May 21, 1907.

Application filed August 11, 1906. Serial No. 330,212.

To all whom it may concern:

Be it known that we, DAVID N. THOMAS and LEMON O. BURK, citizens of the United States, residing at Corning, in the county of Clay and State of Arkansas, have invented new and useful Improvements in Molds, of which the following is a specification.

This invention relates to improvements in molds for the production of articles from cement, clay and other plastic materials, the object of the invention being to provide a simple and inexpensive construction of mold of this character especially designed for the manufacture of drain tiles, sewer pipes, stove flues and the like, the mold being so constructed as to effect the ready release of the completed article therefrom without liability of injury to such article.

In the accompanying drawings,—Figure 1 is a top plan view of a mold embodying my invention. Fig. 2 is a central vertical section of the same.

Referring to the drawing, the numeral 1 designates a frame of any suitable form and size to receive one or more mold boxes. As shown in the present instance, the mold is of rectangular form, and comprises upper and lower horizontal rectangular frames 2 and 3 connected by corner standards 4, the said elements being united by tie bolts 5 or other suitable fastenings. The base frame 3 of the mold is provided with dowels or projections 6 to engage suitable seat recesses 7 in a pallet board 8 on which the mold rests during the forming operation and which serves as a support for the formed tile or other article, while the latter is drying out. Arranged within the frame are one or more mold boxes 9, a single box being shown in the present instance. This box may be of any suitable form or configuration for the production of articles of different shapes and sizes and comprises a plurality of walls 10 independently supported from the top and bottom portions of the frame by links 11, or their equivalent, as shown, in the form of locks hinged to the wall or mold section, as at 12, and to the frame, as at 13, the meeting surfaces of the walls or sections 10 being adapted when the box is closed to closely contact to prevent the escape of cement during the forming operation. The bottom of the mold box is adapted to rest upon the pallet board 8 and to be supported thereby in working position, in which position the box sections or walls 10 are held in assembled relation to form a closed mold chamber. The construction of the mold box is, therefore, such that at the completion of the forming operation the article produced may be quickly and conveniently released from the mold by lifting the frame 1, whereupon the walls or sections 10 will tilt downwardly and outwardly or away from one another by gravity on the links 11, thus releasing the completed article which remains supported by the pallet board 8, on which it may be left to dry.

A core 14 of suitable form is provided for the formation of passages or cavities in the production of hollow blocks and tiles or tubes of the character described. As shown, this core is hollow or tubular and provided with top and bottom heads 15 and 16 having openings for the passage of a rod 17. The upper end of the rod terminates in a handle 18 by which the rod and core may be handled, while the lower end of the rod is bent to form a lateral locking lug 19. The lug 19 is adapted when the core is in applied position to be fitted in a slot 20 formed in the pallet board, which slot communicates with a recess 21 in the underside of said board, said slot and recess being closed at bottom by a plate 22 secured to the underside of the board. By this construction the core may be locked in position by inserting the lug 19 into the slot 20 and then giving the rod a quarter turn to project the lug into the recess, while a reverse movement of the rod will release the lug to permit the core to be readily removed. It will be understood that this construction adapts the core to be conveniently handled and locked in position within the mold.

In operation, the parts are disposed as shown in Fig. 2, and the cement or plastic material is suitably filled into the chamber between the mold walls and core and tamped to the desired consistency, the upper surface being leveled off at the proper height. This results in the production of the tile or other article which the mold is designed to manufacture and it will be apparent that upon then elevating the frame 1 from the pallet board the mold walls 10 will swing downwardly and outwardly, thus releasing the formed article without injury thereto, the article being allowed to remain on the pallet board 8 to dry out. The core 14 may be re-

leased by manipulating the rod 17 in the manner described. Hence it will be seen that a simple form of mold is provided, whereby the operation of releasing or removing the formed article may be conveniently performed without injury to the article, and whereby the operation of molding articles of different form may be rapidly and inexpensively carried out. Any number of molds of the construction described may be mounted in a single frame, employed in connection with a single pallet board, on which all the articles will be allowed to remain until dry at the end of the forming operation, when the natural drying process is employed. The pallot board may also be employed as a support for the articles, whereby the latter may be conveniently introduced to a drying kiln.

Having thus described the invention, what is claimed as new, is:—

1. A mold comprising a pallet board, a frame removably supported thereon, a mold box arranged within the frame and comprising separable sections, and links pivotally connecting the upper and lower ends of said sections to the upper and lower portions of the frame.

2. A mold comprising a pallet board, a frame removably supported thereon, a mold box arranged within the frame and adapted to be supported in working position by the pallet board, said box comprising separable sections, and links connecting the upper and lower ends of said sections to the upper and lower portions of the frame, said links being downwardly and inwardly inclined from the frame to the box sections, whereby when said frame is elevated the mold box sections will be permitted to tilt outwardly and downwardly by gravity.

3. A mold comprising a pallet board having keeper recesses, a frame provided with dowels to engage said recesses, said frame being rectangular in form, a rectangular mold arranged within the frame and removably supported upon the pallet board, said mold comprising separable sections, and links pivotally connecting the upper and lower portions of said sections to the upper and lower portions of the sides of the frame, substantially as described.

4. A mold comprising a pallet board provided with a bottom recess, an opening communicating therewith and a bottom plate closing said recess, a frame supported by the board, a mold box carried by the frame, and a core having a rod journaled therein, said rod being provided at its upper end with an actuating handle and at its lower end with a locking portion to coöperate with said opening and recess.

5. In a molding apparatus, a core, and a rod extending through and journaled in the core, said rod being provided at one end with a handle and angularly bent at its opposite end to form a locking element.

In testimony whereof, we affix our signatures in presence of two witnesses.

DAVID N. THOMAS.
LEMON O. BURK.

Witnesses:
C. H. ROBINSON,
A. W. ROBERTS.