A. C. ROGALSKE.

CORE MOLD.

APPLICATION FILED JUNE 7, 1913.

1,233,509.

Patented July 17, 1917.

Fig. 1.

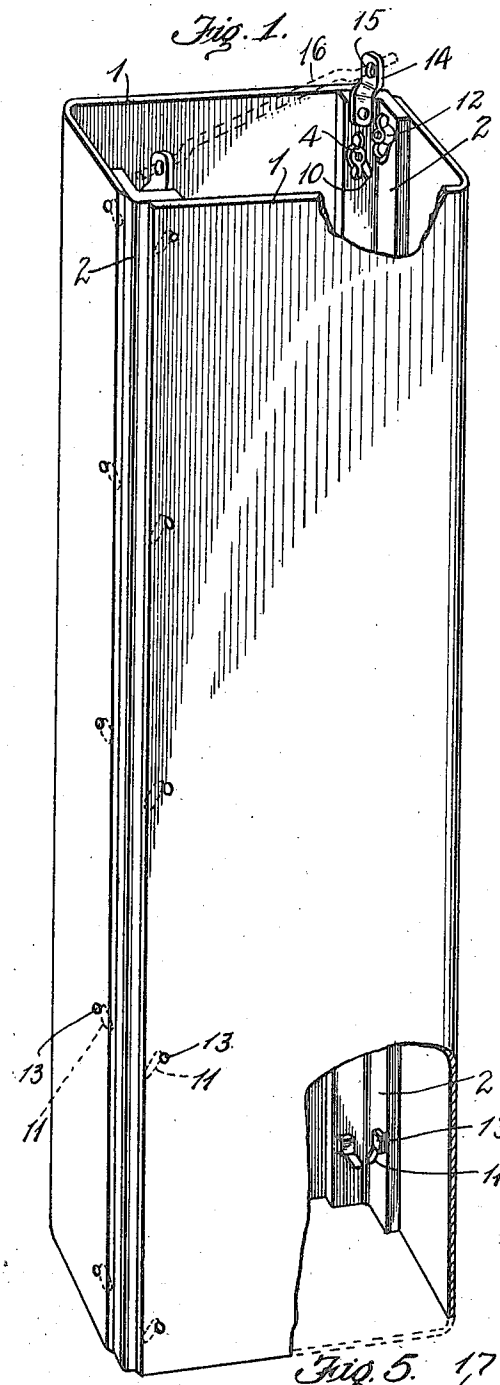


Fig. 2.

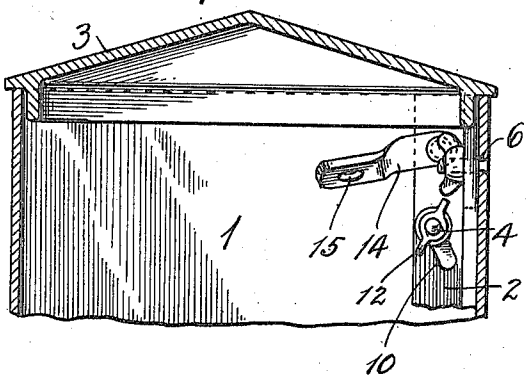


Fig. 3.

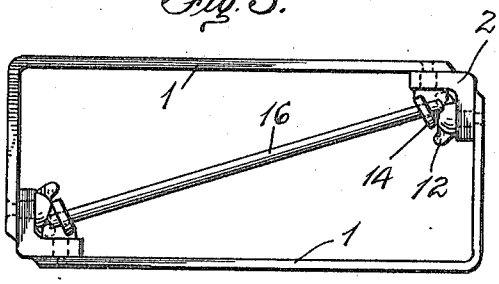


Fig. 4.

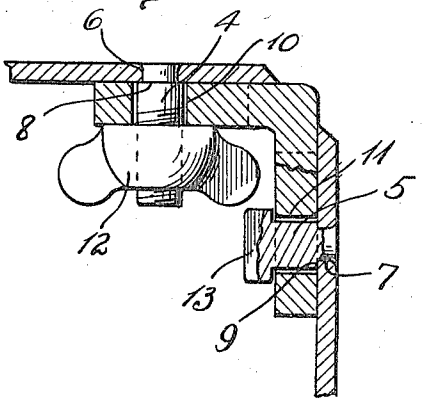
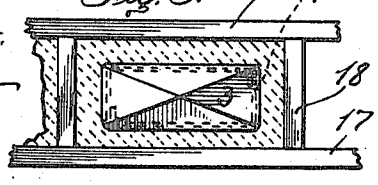


Fig. 5.



Witnesses.
E. R. Pellard
H. Urquhart.

Inventor.
August C. Rogalske.
By
Cassell Severance
Atty.

UNITED STATES PATENT OFFICE.

AUGUST C. ROGALSKE, OF LOS ANGELES, CALIFORNIA.

CORE-MOLD.

1,233,509. Specification of Letters Patent. Patented July 17, 1917.

Application filed June 7, 1913. Serial No. 772,264.

To all whom it may concern:

Be it known that I, AUGUST C. ROGALSKE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Core-Molds, of which the following is a specification.

This invention relates to improvements in molds and particularly to that class of molds adapted for the forming and shaping of the interior of hollow walls, columns or the like.

It is an object of the invention to provide an interior mold or core which may be arranged to form or shape hollow structures, columns or the like, the core being so constructed, that it may be contracted or reduced in size when it is desired to remove it after the molding operation has been completed.

It is a further object of the invention to provide a core or mold for forming hollow structures in which the shaping walls of the core may be positively held in extended condition, while plastic material, such as cement concrete, is placed around the same and allowed to set or harden, the said shaping walls being engaged and connected by intermediate members, adapted to hold them in extended position and to draw them together when the core is to be collapsed for removal.

In the accompanying drawing forming a part of this specification:

Figure 1 is a perspective view of a core mold constructed in accordance with the present invention, parts being broken away to show the interior construction.

Fig. 2 is a detail sectional view taken vertically through the upper portion of said core mold, a cover being shown thereon.

Fig. 3 is an end elevation of the core mold looking at the upper end thereof.

Fig. 4 is a detail sectional view taken through one corner of the core mold, the parts being broken away so that a lower as well as an upper bolt may be shown for movably holding the mold parts together at the corner.

Fig. 5 is a detail sectional view taken horizontally through a portion of a concrete wall showing the molding means in position and a core mold in place therein.

The mold of the present invention is desired to supply a simple and yet effective core mold for assisting in the formation of hollow wall or other structures, the mold being so made that it may be extended to its full size and so held until plastic material such as cement concrete, can be placed around the same and allowed to set and harden. The core mold of this invention is especially adapted for forming hollow cement walls for buildings of any kind, and such, for instance as has been shown and described in my pending application for an improved concrete construction, filed May 7th, 1913 and bearing Serial No. 766,077.

In the drawing the preferred form of the core mold has been illustrated, and the details and the features of the invention will now be specifically described reference being had thereto. In said drawing 1 indicates oppositely arranged angular wall pieces, 2 angle bars engaging and holding in proper relation to each other, the adjacent edges of the walls 1, and 3 a removable cover adapted to be placed upon the upper end of the mold when cement concrete or other plastic material is to be poured around the mold.

The core mold may be made of any desired length but is so constructed that long, as well as short molds may be contracted and withdrawn from position when the concrete surrounding the same has become hard. The core mold is usually made rectangular in cross section, the opposing wall pieces 1 being preferably plates of thin metal bent longitudinally so as to form the diagonally opposite corner edges of the mold as clearly shown in Figs. 1 and 3 of the drawing. The angle bars 2 are usually made of heavier material and are set in the other diagonally opposite corners of the core mold and have the adjacent adjustable edges of the wall pieces 1 applied upon the outer faces thereof. The parts are so related that the angular wall pieces 1 may be drawn toward each other after the core has been extended, without the edges of said wall pieces 1 engaging

each other. The angle bars 2 are adjustably connected with the said wall pieces by means of pins or bolts 4 and 5 the said pins or bolts having reduced end portions which are firmly secured in holes 6 and 7 formed in the wall pieces 1. The reducing of the ends of said bolts provides shoulders at 8 and 9 which may be forced tightly against the inner surfaces of the wall pieces 1 so that when the outer ends are headed over upon the outer surfaces of said pieces, the said bolts will be rigidly fastened thereto and will become inwardly projecting studs. The said bolts or studs engage inclined elongated slots 10 and 11 formed near the upper and lower ends and at intermediate portions of the angle bars 2. The upper bolts 4 engage the upper slots 10 and these bolts are preferably longer than the lower and intermediate bolts 5 and are screw threaded upon their inner ends to receive clamping thumb nuts 12. The parts may be clamped and held in their adjusted positions by tightening the said thumb nuts 12 upon the upper bolts 4. The lower and intermediate bolts 5 do not need tightening, since the upper bolts are sufficient to clamp the parts of the core mold in extended positions. The lower and intermediate bolts 5 are therefore merely provided with inner heads 13 which prevent the parts from becoming disengaged but permit of their adjustment. The slots in the angle bars 2 are so inclined that when the angle bars are moved so that their ends coincide with the ends of the wall pieces 1, the said wall pieces will be separated to their greatest extent and the core mold will be in its extended or expanded position. When the angle bars 2 are raised longitudinally, the slots 10 and 11 will operate to draw the wall pieces 1 toward each other and the core will thus be contracted to a considerable degree and thus be freed from contact with the surrounding concrete and the core may then be pulled lengthwise from its position.

To facilitate the lifting of the angle bars 2 simultaneously, pivoted pieces 14 are secured to the upper ends of the said pieces 2 and provided with holes 15 through which a lifting rod or bar 16 may be passed. By grasping the said bar 16 with the hand, the bars 2 may be lifted simultaneously for first drawing the wall pieces 1 toward each other, and thus disengaging them from the surrounding cement, and then lifting them out of the recess which has been molded in said cement. By pivotally securing the pieces 14 to the bars 2, they may be turned downwardly within the core mold when the cover 3 is to be put into place, as shown in Fig. 2 of the drawing.

In Fig. 5 of the drawing the core mold has been shown in position for assisting in forming the hollow cement concrete wall. When the side forming boards 17 have been put in place and the spacing pieces 18 placed between them, the core mold in its expanded or extended form is set in position between the forming boards 17 and the cover 3 placed thereon. The plastic cement concrete may then be poured in around the core, the cover 3 preventing it from entering the same. After the cement has set sufficiently, the cover 3 is removed, the pieces 14 turned upwardly and the rod 16 put in place for contracting and lifting the core mold from the concrete.

It will be evident from the above description that the core molds may be employed or the formation of recesses in hollow walls and it will be understood that they may be made in different sizes and lengths without departing from the spirit of the invention. The said cores are of advantage in that they may be made long enough to reach the full height of a story or the space between floors in a building, for the wall pieces 1 of the core will be drawn inwardly and contracted evenly from end to end when they are to be removed from the material of the wall. It will be evident also, that the wall pieces and the corner bars may be made of different shapes in cross section, so as to make oval or other forms of recesses within the wall structure, without departing from the spirit of the invention.

What is claimed is:

1. A core mold comprising opposing angle wall pieces, longitudinally movable angle bars engaging and connecting the adjacent edges of the said wall pieces for holding them against longitudinal movement with respect to each other, studs carried by the said wall pieces, the said angle bars having inclined slots adapted to engage said studs, and means whereby the said angle bars may be moved with respect to the said wall pieces to contract the core mold when the said angle bars are lifted.

2. A core mold comprising angle plates forming approximately the side and end walls of the mold, longitudinally movable angle bars within the adjacent edges of the said angle plates and having pin and slot connections with said angle plates and means connecting the angle bars whereby the same may be lifted to contract the body portion of the mold when the same is to be removed from the article molded.

3. A core mold comprising opposing wall plates bent longitudinally to form the side and end walls of the mold with their adjacent edges approximating each other, longitudinally movable angle bars adapted to contact the adjacent edges of the wall plates, studs fixed in the adjacent edges of said wall plates, the said angle bars having oblique slots formed therein and adapted to

engage the said studs, clamping nuts applied to some of said studs whereby the adjusted positions of the parts may be clamped, links for reciprocating the angle bars, and a handle bar engaging said links for moving them simultaneously when the mold is to be contracted or expanded whereby the slots operating upon the said studs will draw the wall plates toward each other or separate them.

In testimony whereof, I have hereunto set my hand, in presence of two witnesses.

AUGUST C. ROGALSKE.

Witnesses:

DANIEL P. KENDRICK,

CASSELL SEVERANCE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."