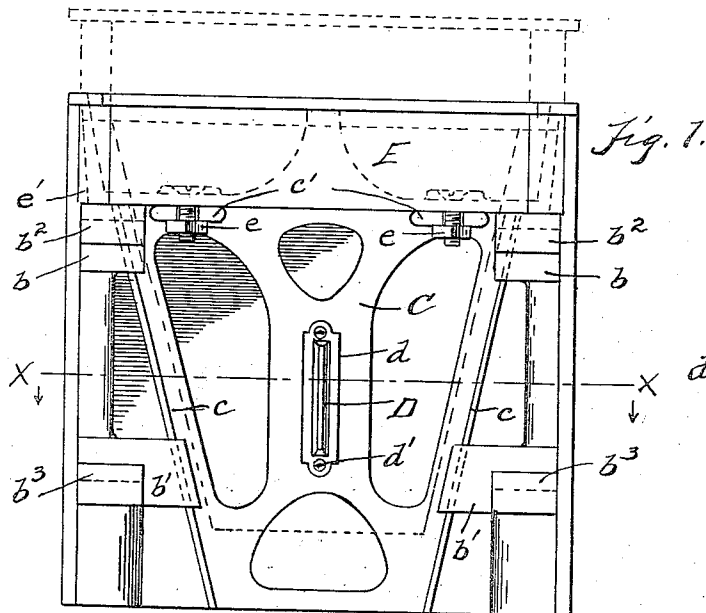
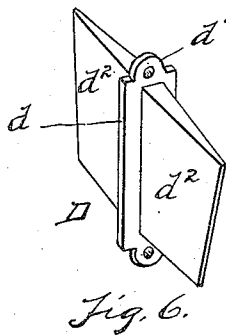
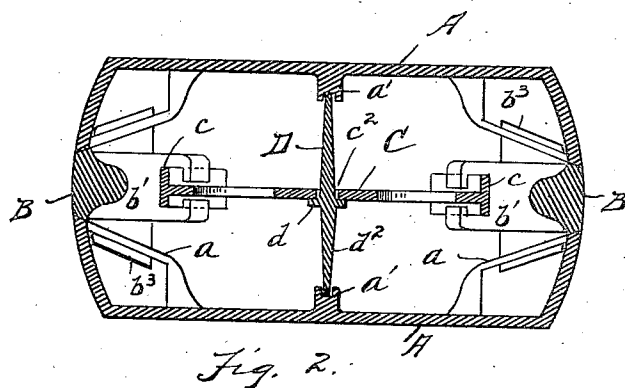
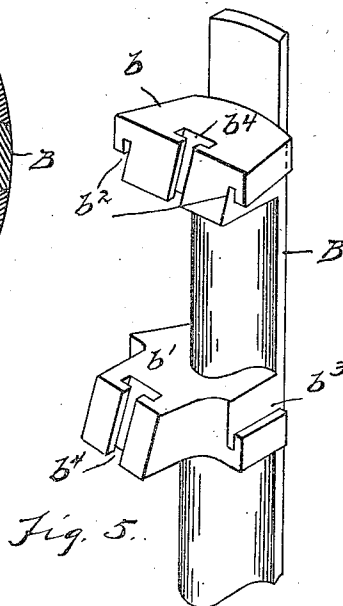


No. 870,144.

PATENTED NOV. 5, 1907.

J. A. WALKER.
COLLAPSIBLE CORE.
APPLICATION FILED AUG. 6, 1906.

2 SHEETS—SHEET 1.



Witnesses:
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Howard E. Beandley

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2 SHEETS—SHEET 2.

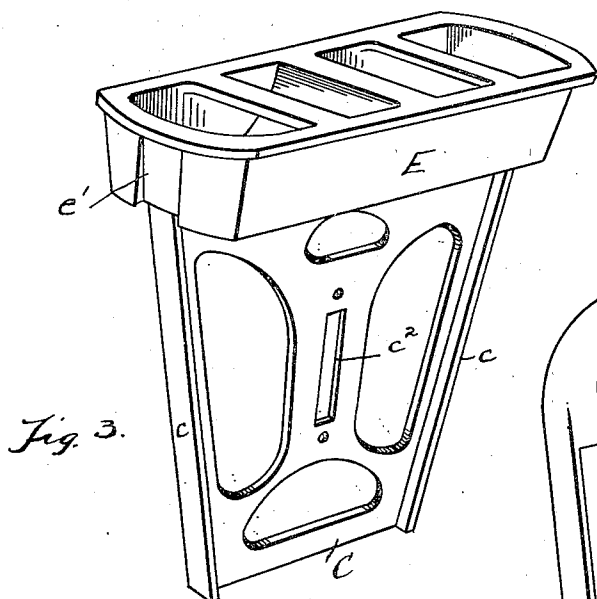


Fig. 3.

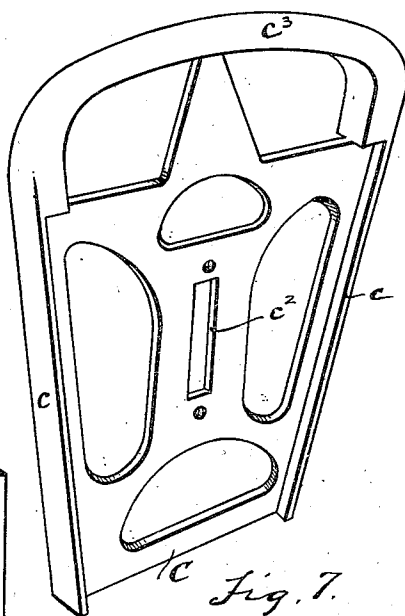


Fig. 7.

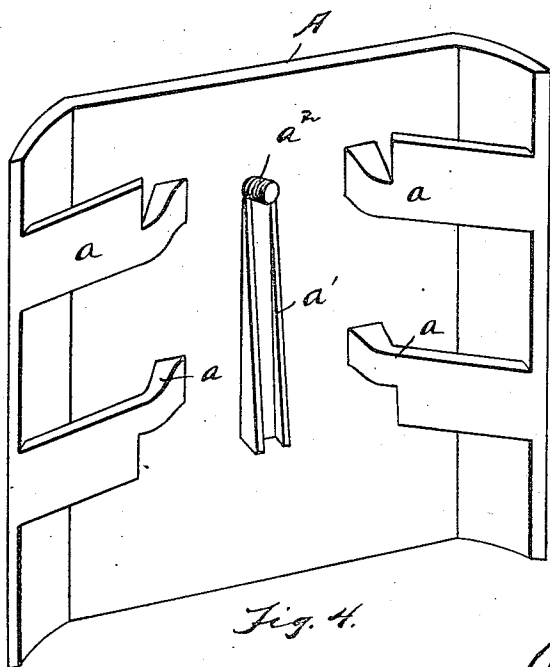


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOSEPH A. WALKER, OF DETROIT, MICHIGAN.

COLLAPSIBLE CORE.

No. 870,144.

Specification of Letters Patent.

Patented Nov. 5 1907

Application filed August 6, 1906. Serial No. 329,483.

To all whom it may concern:

Be it known that I, JOSEPH A. WALKER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain

new and useful Improvements in Collapsible Cores, of which the following is a specification.

This invention relates to improvements in a collapsible core for concrete block and other molding machines and has for its object to provide a collapsible core which works automatically while it is being removed from the casting.

It is the further object of my invention to provide a core with interchangeable parts, so that it can be readily varied in size.

It is my purpose to make a core which collapses from all sides and by the simple act of raising the core.

In my invention I do away with independent levers, screws or cams and produce a simple and easily operated device for the purpose above mentioned.

I attain these objects by the mechanism and construction herein described and claimed, and which are shown in the annexed drawings illustrating my invention and constituting a part of this specification.

Figure 1 represents a longitudinal sectional view of my invention, showing in dotted lines the core top and core center in position when the core is collapsed. Fig. 2 represents a cross sectional view of my core taken on a line of $x x$ of Fig. 1. Fig. 3 represents the top or handle section of my core in one modification together with the tapering core center. Fig. 4 is a side view of one of my side plates. Fig. 5 represents one of the end plates. Fig. 6 is a view of a guide member attachable to the core centers. Fig. 7 shows the core center with a modified handle.

Similar letters refer to like parts throughout the different views.

A represents the side members of my core constructed of any suitable material of sufficient thickness to withstand the inward pressure of the casting material when it is tamped around it. Across the corners of this plate are the slide members a fitting the grooves b^2 and b^3 of the end members B. It will be observed that these slide members a are set in a plane oblique to the side and that the grooves b^2 and b^3 are oblique to the longitudinal line of the core, so that when the ends B are drawn in, the sides A are moved toward the center.

B. represents the end members of my core and consists of a vertical outer surface forming a portion of the core body, and projecting lugs intermediate its end.

The upper lug contains the downward projecting grooves b^2 , and the lower lug, the upward projecting groove b^3 . On the inner face of these lugs are the oblique grooves b^4 which engage the outer oblique flanges c of the core-center C. At the middle point of the core

center C is the aperture c^2 for receiving the guide member D. This guide member contains the shoulder d and the holes d' , by which said plate is secured to the core-center C. This guide member can be made of different lengths to accommodate different widths of cores. The exterior ends of d^2 fit the grooves a' of the side members and admit of an upward and downward motion.

E is a top section of my core which closely fits within the sides and ends of my collapsible core when the same are in position. The upper surface of the member E is provided with suitable handles. The core-center C is secured to the top E by a bolt or screw, or other suitable device, through the plates c' and e . If desired the two members E and C may be formed in one piece. In one modification of my invention the upper member E is provided with the handle c^3 . In the ends of the member E are depressions e' which receive the upper part of the end pieces B when the core is in position.

c^2 is a stop screw in the side plates A for the purpose of preventing the complete withdrawal of the core-center.

In the operation of my invention the wedge shaped core-center is inserted in the slides b^4 of the ends B and the members a of the side plates are engaged in the slots b^2 and b^3 of the end pieces. The wedge shaped core-center is moved down crowding out the end pieces of the core and at the same time the action of the oblique guides a , crowd outward the sides of the core until the four members designated A and B are in the position indicated in Fig. 2. The core is now resting on the floor or the base of the mold box. In order to collapse the core the handle of the top E, or in the modified form the handle c^3 is grasped and an upward motion imparted to the core-center. This draws in both the ends and sides of the core. It will be observed that the plates A and B meet at an angle so that with the first inward motion of the ends B the sides A can also be drawn inward. The upward movement of the wedge shaped core center working in the slots b^4 draws in the end sections B. As these end sections move inwardly the outer flanges of the slots b^2 and b^3 press against the exterior sides of the oblique slide members a , thereby imparting a positive inward motion to the side plates A.

By the substitution of wider plates B and a longer guide plate D the width of the core can be increased without other additional new members than the core top. In like manner the length of the core can be increased by the substitution of longer ends and a wider core-center.

Modifications can be made in the method of attaching the core-top and core-center and also the guide to the core-center without departing from the intended scope of my invention, which is intended to cover broadly a collapsible core having for its main features a wedge

shaped core-center engaging the end pieces of the mold and the slide members *a* set in a plane oblique to the face of the mold and engaging the grooves *b*² and *b*³, the inner sides of which are in a plane oblique to the perpendicular center line of the end pieces.

Having thus fully described my invention what I claim and desire to secure by Letters Patent is:

1. A collapsible core consisting of side and end sections movably interlocked by means of oblique slides and slide grooves, of a wedge shaped core-center engaged with the oppositely disposed end plates, substantially as described.

2. A collapsible core consisting of a wedge shaped core-center engaging the end sections of said core, of side members engaging said end section and actuated thereby, substantially as described.

3. A collapsible core consisting of side and end sections movably interlocked by means of oblique slides and slide grooves, of a wedge shaped core-center engaged with the oppositely disposed end plates, of a guide member attached to said core-center and admitting of an upward and down-

ward motion in a groove on the inner surface of the side plates, substantially as described.

4. A core-center having downward and inwardly inclined edges movably inserted in socket grooves of end sections, of side plates movably secured to said end sections by means of oblique slides and grooves, of a guide plate secured to the core-center adapted to move in grooves on the inner surface of the side plates, of a stop screw at the upper portion of said groove, substantially as described.

5. A collapsible core, consisting of a plurality of side plates two or more of which are movably attached by means of socket grooves to the outer oblique edges of a core-center and engaging by means of oblique slides and slide grooves the remaining core plates, substantially as described.

In witness whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH A. WALKER.

Witnesses:

DAVID N. HARPER,
EDITH C. THOMPSON.