

No. 882,196.

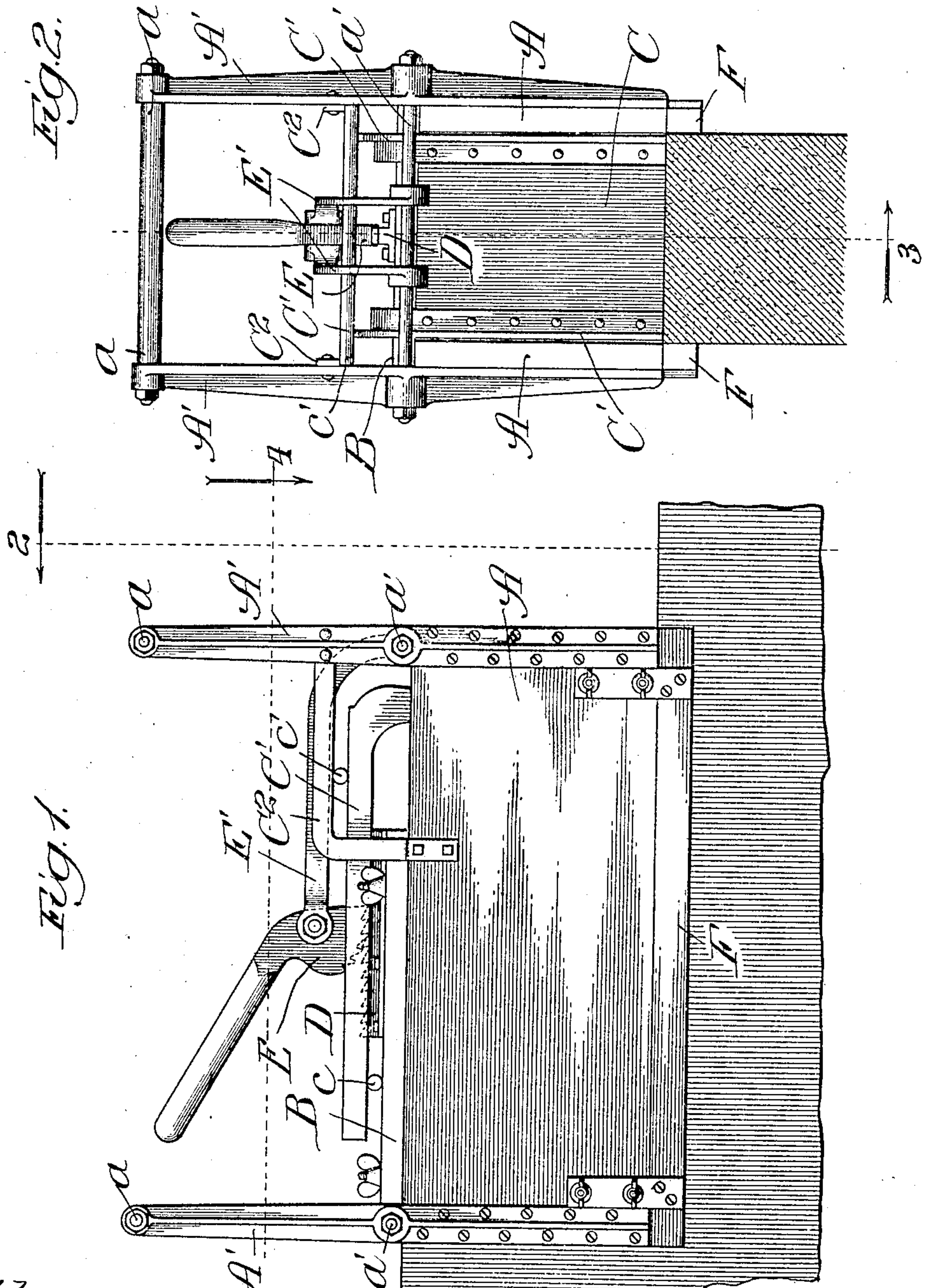
PATENTED MAR. 17, 1908.

H. H. HAHN.

METHOD FOR BUILDING MONOLITHIC WALLS.

APPLICATION FILED APR. 27, 1907.

2 SHEETS—SHEET 1.



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Fig. 3.

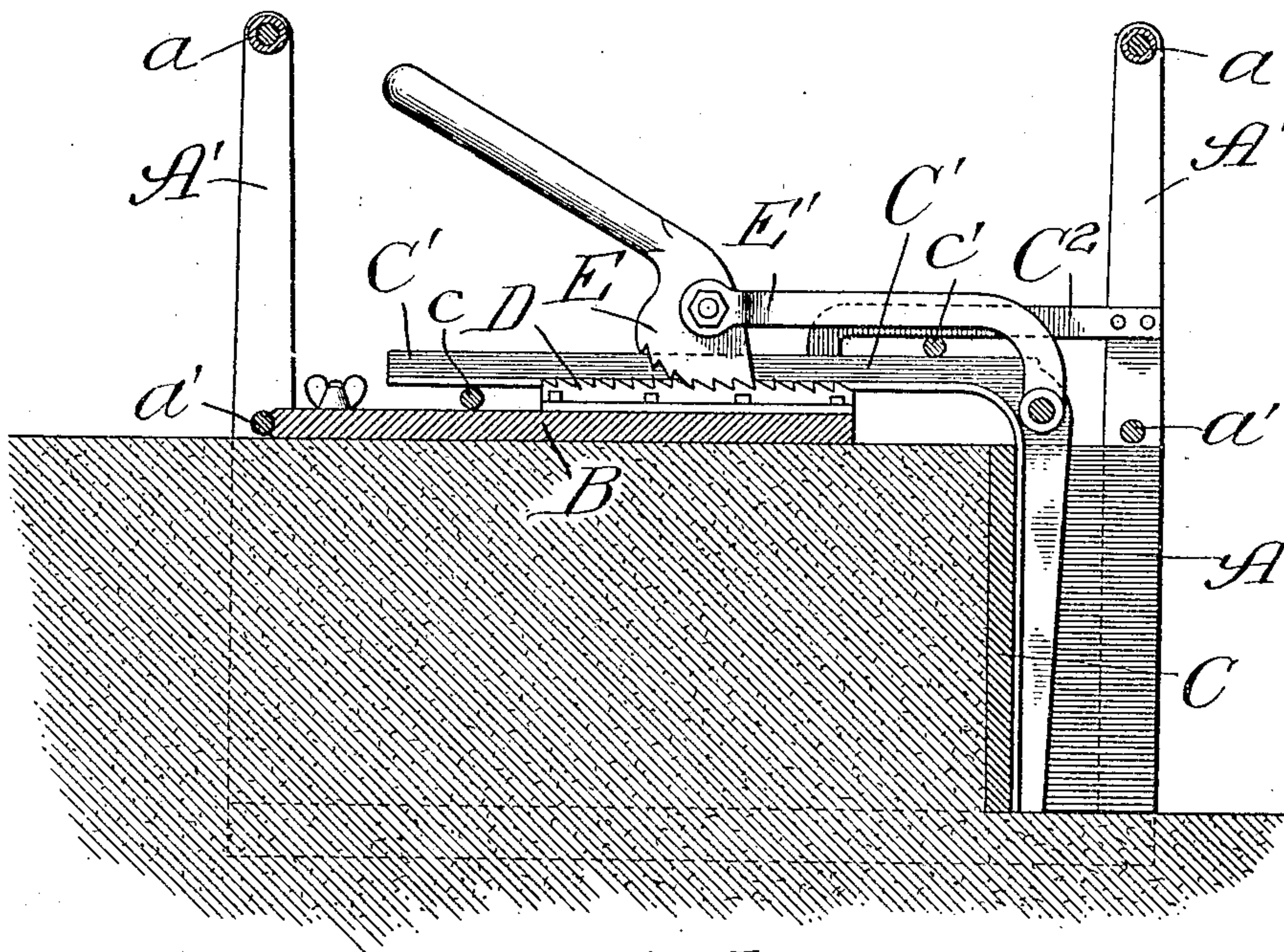
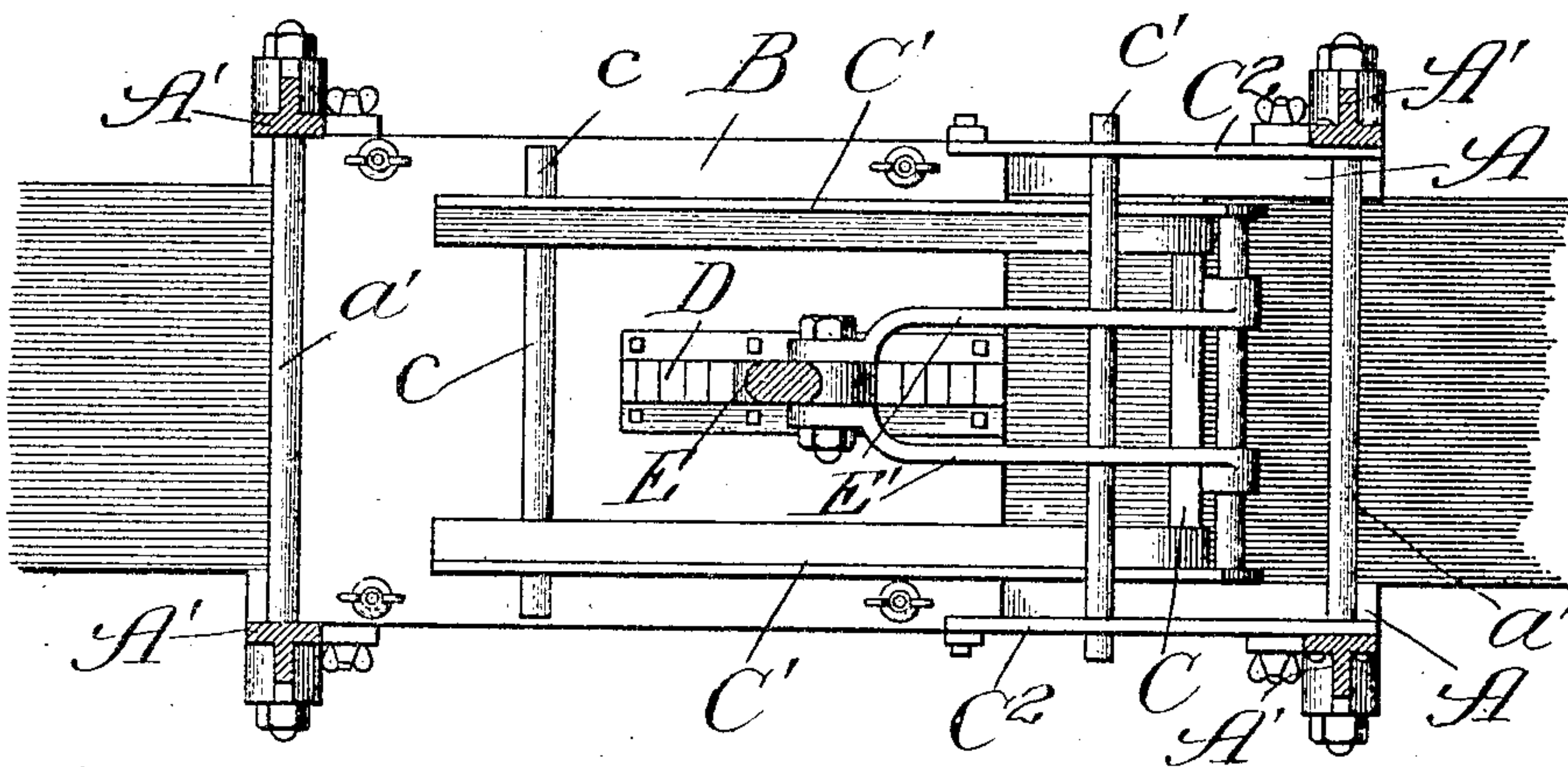


Fig. 4.



Witnesses:
Eas. C. Gaylord.
Chas. H. Buell.

Inventor:
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UNITED STATES PATENT OFFICE.

HOWARD H. HAHN, OF KENOSHA, WISCONSIN.

METHOD FOR BUILDING MONOLITHIC WALLS.

No. 882,196.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed April 27, 1907. Serial No. 370,740.

To all whom it may concern:

Be it known that I, HOWARD H. HAHN, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented a new and useful Improvement in Methods for Building Monolithic Walls, of which the following is a specification.

My invention relates to a certain new and improved method for building monolithic walls, the material used being plastic and preferably concrete, and the construction of the wall being greatly simplified and cheapened by my method.

An apparatus suitable for carrying out the method is illustrated in the drawings herewith submitted, in which:

Figure 1 is a side elevation of the apparatus; Fig. 2 is a front elevation of the apparatus, the wall being shown in a section taken at the line 2 of Fig. 1; Fig. 3 is a vertical longitudinal section in the line 3 of Fig. 2; and Fig. 4 is a transverse section in the line 4 of Fig. 2.

Referring to the drawings, A, A, are the two side boards of the mold which I use in practicing my method. Vertical bars A¹ are secured to said side boards at the front and rear thereof respectively, the said bars being provided with spreaders *a* at their upper ends and with clamping bolts *a*¹ just above the top edges of the side boards. By means of the clamping bolts the side boards can be spaced apart at their lower edges and any desired degree of inward lateral pressure can be obtained.

A cover B is removably secured to the tops of the side boards, said cover extending forward from the rear of the mold through two-thirds of the length thereof. A plunger C is provided in the front of the mold and is longitudinally movable therein. The plunger is held in a vertical position and is guided by means of bars C¹ secured to the plunger and extending backward in a horizontal direction above the cover B. A roller *c* runs between the bars C¹ and the rear portion of the cover B and a roller *c*¹ runs between the top edges of the bars C¹ and a pair of tracks C² extending backward from the forward bars A¹ and thence downward to the side boards as illustrated.

A ratchet D is secured to the cover B and a lever E having teeth at its lower end engages with said ratchet, the said lever E being connected by a link E¹ with the plunger.

It is obvious that by reciprocating the hand-lever E the plunger can be drawn backward in the mold with considerable force, and that upon raising the lever bodily from engagement with the ratchet bar, the plunger can be returned to its forward position.

In practicing my method for building walls, the side boards of the mold are set up over and resting upon the foundation, the cover being removed. The mold is then tamped full of concrete except at the extreme front, the cover is placed in position, the plunger is adjusted and reciprocation of the hand-lever is commenced. This will draw back the plunger so as to compress the plastic material longitudinally between the cover and the two side walls. When sufficient pressure is exerted the mold will begin to move forward, leaving behind it the wall already formed. When the plunger has moved back to its extreme limit of movement the lever is raised from engagement with the ratchet and the plunger is drawn forward, leaving a space between itself and the end of the wall. This space is then filled with plastic material, the lever is again operated to compress the material, and the mold is again drawn forward. By this procedure a perfectly uniform compression of the wall material is obtained. Furthermore, extremely rapid operation is possible, inasmuch as the mold is always in position to receive a new charge of plastic material and requires no new adjustment as it is moved. I have also observed that in practicing my method a very attractive surface is given to the concrete by reason of the sliding of the side boards of the mold over its surface, with the result that the cement is to a large extent wiped from the outer surfaces of the harder particles so as to expose said harder particles to view. After the first course of the wall is laid, shoes F are secured to the lower portions of the side boards A and these shoes overlap the preceding lower course so as to guide the mold perfectly in its movements.

It will be evident that by varying the contour of the side boards of the mold, any configuration of the surface of the wall can be obtained, providing only that such configuration be composed of horizontal lines as, for instance, moldings and the like. Vertical ornamentation can be given to the wall by inserting molds in the wall at intervals before the front part of the mold is filled with concrete, filling in around the molds with

concrete and permitting the molds to feed through the machine and removing them from the concrete body of the wall after the machine has passed beyond their position.

- 5 Hollow spaces in the wall can if desired be made in a similar way without in any way interfering with the efficiency of the device or with the practice of my method.

10 I realize that considerable variation is possible in the procedure set forth without departing from the spirit of my invention, and I do not intend to limit myself specifically to such procedure except as pointed out in the following claims.

- 15 What I claim as new and desire to secure by Letters Patent is:—

1. The method of building monolithic walls which consists in constructing successive superimposed layers by placing material

for each layer in a mold, compressing the material within the mold, and moving the mold forward by the compressing force, the mold when forming each layer being mounted upon the preceding layer.

2. The method of building monolithic walls of plastic material, which consists in placing the material in a mold open at one end, compressing the material in the mold and moving the mold forward by the compressing force, the mold being supported by the formed portion of the wall and being guided in its forward travel by the sides of the mold engaging the sides of the formed portion of the wall.

HOWARD H. HAHN.

In presence of—

RALPH SCHAEFER,
A. R. MCINTYRE.