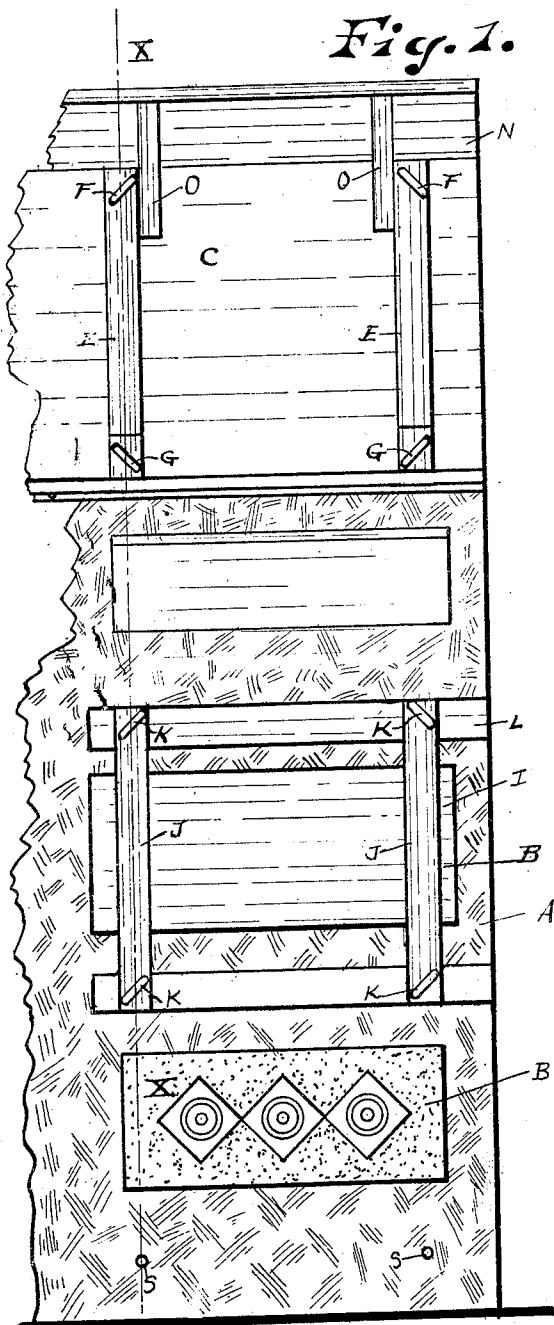


No. 836,369.

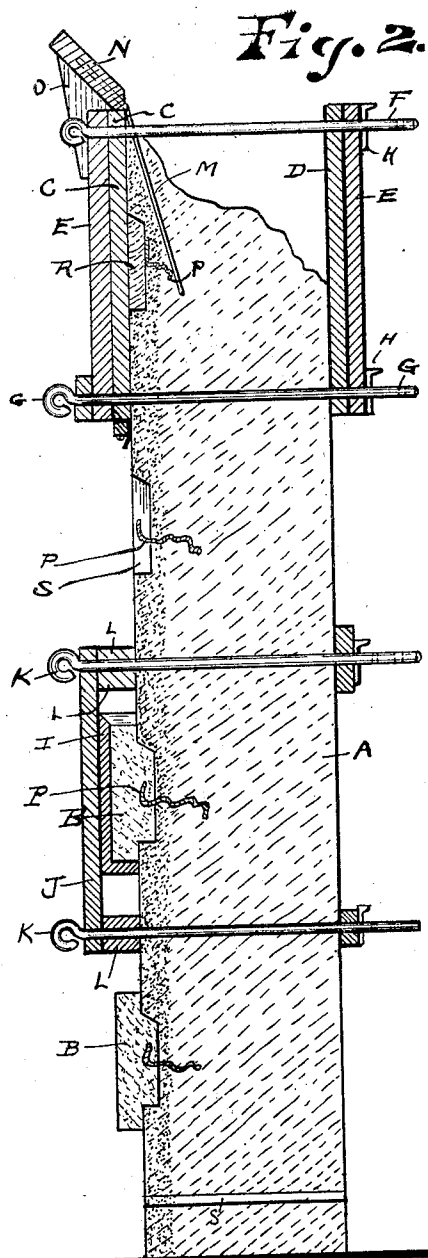
PATENTED NOV. 20, 1906.

A. I. DEXTER.
PROCESS OF MAKING CONCRETE BUILDING WALLS.
APPLICATION FILED MAY 14, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AVELYN I. DEXTER, OF BIRMINGHAM, ALABAMA.

PROCESS OF MAKING CONCRETE BUILDING-WALLS.

No. 836,369.

Specification of Letters Patent.

Patented Nov. 20, 1906.

Application filed May 14, 1906. Serial No. 316,604.

To all whom it may concern:

Be it known that I, AVELYN I. DEXTER, a citizen of the United States, residing at Birmingham, county of Jefferson, and State of Alabama, have invented new and useful Improvements in Processes of Making Concrete Building-Walls, of which the following is a specification.

My invention relates to improvements in integrally-formed concrete walls; and it pertains more especially to the process herein described of forming the ornamental work which projects past the exterior surface of the main body of the wall—such, for example, as are used in the construction of cornices—and to represent the base and capstone of windows, doors, &c.

The construction of my invention is explained by reference to the accompanying drawings, in which—

Figure 1 represents a front view of my improved apparatus used in the construction of the wall in connection with a portion of the wall, and Fig. 2 represents a vertical section drawn on line *x x* of Fig. 1.

Like parts are identified by the same reference-letters in both views.

A represents the body of the wall in the process of construction, and B one of the ornamental pieces affixed to the exterior surface of the wall. The apparatus which I employ in constructing the wall comprises the front molding-board C, rear molding-board D, transverse strengthening-pieces E E, horizontal connecting-rods F and G, ornamental molding-box I, box-retaining bars J J, bar-retaining rods K K, and stay-blocks L, all of which parts are adjustably connected together, as better shown in Fig. 2.

When constructing a wall formed of different grades of concrete, I preferably employ a screen comprising a plurality of diagonally-arranged fingers M, which are connected together at their upper ends by the board N, when said screen is retained in place upon the edge of the front board C by the angular brackets O, which brackets extend down past the upper edge of said board C and bear against its vertical surface, whereby said screen is retained in position. In constructing the first course of the integrally-formed wall all that part of the apparatus shown below the rods G is dispensed with. When the molding-box, comprising that part of the apparatus above and including the rod G, is in place and the box partially filled with con-

crete, I first insert the metallic fastening-piece P, which is preferably formed of a flexible piece of wire or other similar material and is embedded at one end in the concrete, as shown within the molding-box in Fig. 2. I then insert a longitudinally-arranged molding-board R. When this is done, the molding-box is filled with concrete and permitted to set and harden, the rod G is withdrawn from the molding-box, the box is raised a distance corresponding with the distance between said rods F and G, said rod G is again inserted, and said parts are readjusted preparatory to forming the next succeeding course of concrete. The molding-board R is then withdrawn from the surface of the wall, when the upper ends of the metallic fastening-pieces P are inclined upwardly and forwardly, as indicated in the lower courses of Fig. 2, within the space S, formed by the molding-board, which has been removed. This being done, I then insert the molding-box I in front of the aperture S, when it is retained in place by the vertical bars J, the respective ends of said bars J being held in place by the rods K. Said molding-box is then filled with concrete or other suitable material in a plastic condition and permitted to harden and form the ornamental figures desired, as indicated at B. It will of course be understood that the box I is provided with an ornamental molding-surface adapted to produce any ornamental finish desired.

When the concrete or other suitable material has become set and hardened in the molding-box I, the rods K and the vertical bars J are withdrawn, when the molding-box I is removed, thus leaving the ornamental piece B in place, as indicated in the lower section of said Figs. 1 and 2. This being done, the entire molding apparatus is raised a distance corresponding with the section of the wall thus completed, when the rods K are inserted in the same apertures in which the rods G have been withdrawn. Said parts are again adjusted and refilled with concrete or other suitable material and the process described again and continuously repeated until the wall is finished. It will of course be understood that the concrete or other material of which said ornamental pieces are formed will set and harden around the metallic retaining-wires P, whereby the same is securely held in place.

While I have shown and described the molding-box I as retained in place by a plu-

5 rality of transversely-arranged rods K and
 vertical bars J, I do not wish to limit myself
 to the use only of said rods and bars for such
 purpose, as it is obvious that the molding-box
 10 may be secured to the wall in a great variety
 of other ways. For example, when the orna-
 mental pieces are, as usual, located above or
 below a window or doorway the clamping
 mechanism may be located in such window-
 15 opening or doorway, when the retaining-rods
 K may be dispensed with.

20 While the ornamental pieces B may, if de-
 sired, be formed as the wall is being con-
 structed, it is obvious, if desired, that the
 25 entire wall may first be made, with the aper-
 tures S, before the ornamental pieces B are
 made, when the ornamental pieces B may be
 formed after the entire building is completed.

30 Having thus described my invention, what
 I claim as new, and desire to secure by Let-
 ters Patent, is—

1. The process herein described of forming
 ornamental work upon the front surface of
 integrally-formed concrete walls, consisting,
 35 first, in depositing concrete in an adjustable
 molding-box around a suitable molding-
 board adapted to form a recess in the front
 surface of the wall-section; second, permit-
 40 ting the concrete thus deposited to set and
 harden around the molding-board within
 said molding-box; third, raising and read-
 justing the molding-box and removing the
 molding-board; fourth, inserting an orna-
 45 mental molding-box in front of the recess
 formed by said molding-board; fifth, filling
 50 said molding-box with concrete or other suit-

55 able material; and sixth, in again removing,
 raising, readjusting and refilling said mold-
 ing apparatus as each successive course is
 formed, until the wall is completed substan-
 60 tially as set forth.

2. The process herein described of forming
 ornamental work upon the front surface of
 integrally-formed concrete walls, consisting
 first, in depositing concrete in an adjustable
 65 molding-box around a suitable molding-
 board and metallic fastening-piece, which
 molding-board is adapted to form a recess in
 the front surface of the wall; second, permit-
 70 ting the concrete thus deposited to set and
 harden around the molding-board within
 said molding-box; third, raising and readjust-
 ing the molding-box and removing the board
 and bending said metal fastening-piece for-
 75 wardly in position to engage and retain the
 ornamental work in place in the recesses
 formed by said molding-board; fourth, se-
 curing an ornamental molding-box in front of
 the recess formed by said molding-board;
 80 fifth, filling said ornamental molding-box
 with concrete or other suitable material; and
 sixth, in again removing, raising, readjusting
 and refilling said molding apparatus in the
 order described as each successive course is
 85 formed, until the wall is completed, substan-
 tially as set forth.

In testimony whereof I affix my signature
 in the presence of two witnesses.

AVELYN I. DEXTER.

Witnesses:

G. P. LEYTER,
 C. D. BEASLEY.