

No. 895,255.

H. A. GODDARD. PATENTED AUG. 4, 1908.
 APPARATUS FOR CONSTRUCTING A HOLLOW WALL.
 APPLICATION FILED FEB. 23, 1908.

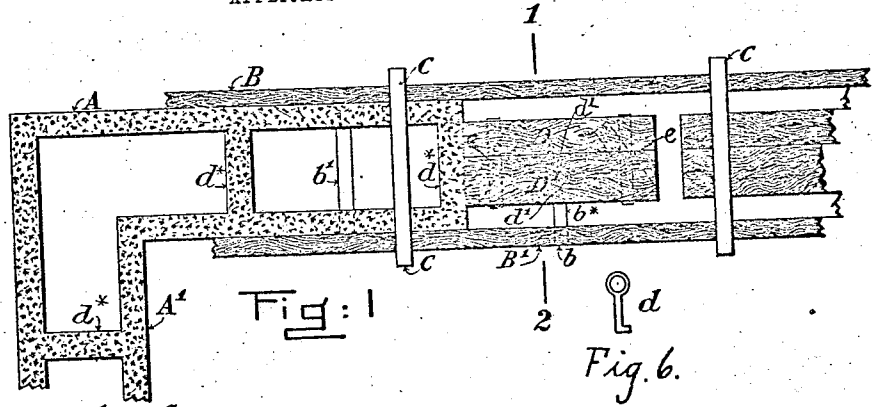


Fig: 1

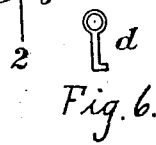


Fig. 6.

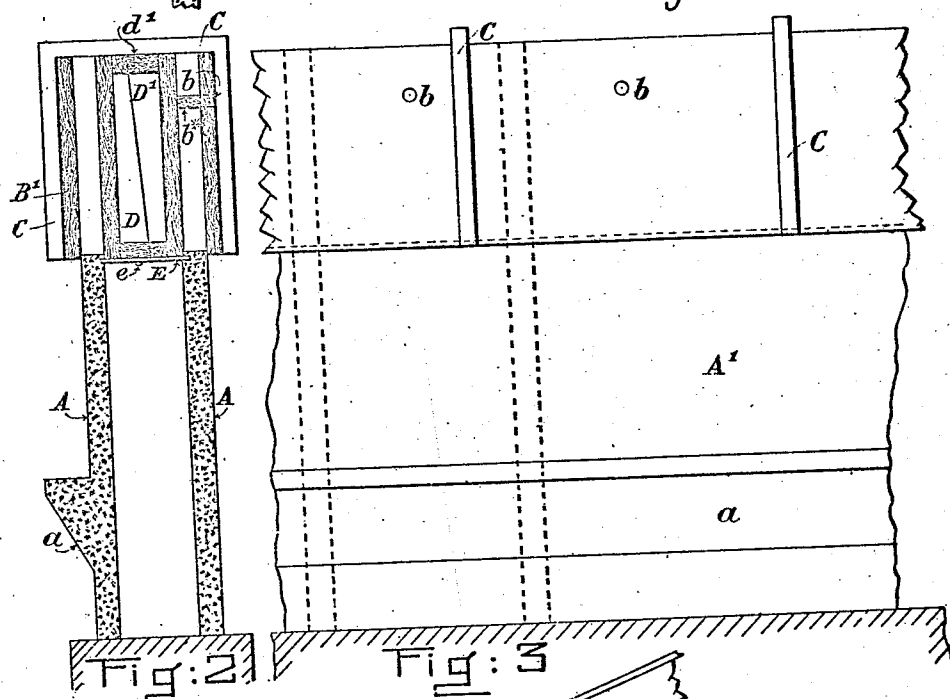


Fig: 2

Fig: 3

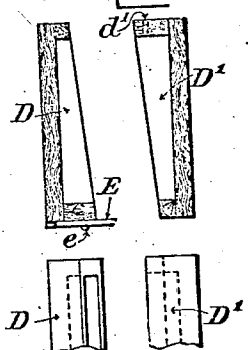


Fig: 5

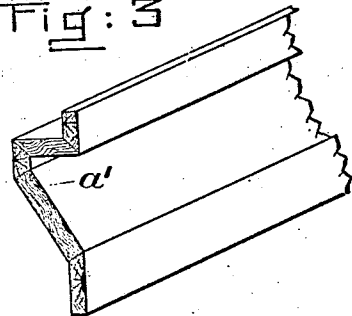


Fig: 4

WITNESSES:
 W. P. Bunk
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UNITED STATES PATENT OFFICE.

HENRY ARTHUR GODDARD, OF CONCORD, NEAR SYDNEY, NEW SOUTH WALES, AUSTRALIA.

APPARATUS FOR CONSTRUCTING A HOLLOW WALL.

No. 895,255.

Specification of Letters Patent.

Patented Aug. 4, 1908.

Application filed February 23, 1906. Serial No. 302,602.

To all whom it may concern:

Be it known that I, HENRY ARTHUR GODDARD, a subject of the King of Great Britain and Ireland, residing at Ada street, Concord, near Sydney, in the State of New South Wales, Commonwealth of Australia, have invented new and useful Improvements in Apparatus for Constructing a Hollow Wall, of which the following is a specification.

This invention relates to an improved mode of building hollow walls of concrete, whereby the wall shell shall be constructed of but one and a half inch, and upwards, thickness of concrete with an intermediate space between the two faces of the walls, such space being formed by means of collapsible frames or boxes, initially placed in position, the concrete shell being cast around the collapsible core. The external frames or molds may be made of any suitable contour, so that joist supports or sills, and moldings of different kinds may be constructed at the same time that the wall is being built. Wood insertions, adapted to carry picture rods or to afford a hold for wooden paneling and such like ornamentation may also be introduced into the wall during the period of construction. But in order that the invention may be properly understood, reference is made to the accompanying sheet of drawings, in which:—

Figure 1 is a sectional plan of a wall in course of construction. Fig: 2 is a vertical section of the same, on the line 1—2 of Fig: 1. Fig: 3 is an elevation of the interior side of a wall. Fig: 4 is an isometrical projection of a portion of the frame adapted to cast, in concrete, a joist support, and Fig: 5 is a vertical section and half plan, of one of the collapsible boxes or cores. Fig: 6 is a view of a key for the core.

A is the outside shell, A' the inside shell of a house wall, B, B' the outside and inside panels respectively, within which the shells A, A' are cast. These panels are maintained in position by a rectangular clip or strap C which passes over the top edges and down the sides of the panels B, B' as may be seen in Figs: 1, 2 and 3.

The collapsible box or core is shown at D, D'. This box or core is of peculiar construction, being made in two parts, the part D and the part D'. The adjacent and cooperating edges of these two parts are inclined, and when in position, as shown in Figs: 1 and 2, the whole forms a parallelepiped. The part

D will first be placed in position, then the part D'. When it is desired to shift the box or core, the part D' must first be removed; this may be effected by introducing the key *d* into the key-hole *d'* in the part D' and giving it a quarter turn, when the part D' of the box may be lifted. To the bottom of the part D of the box is pivoted at *e* a flat bar E. When the part D is placed in position, the bar E must be turned on its pivot *e* until it lies transversely across the cavity, as shown in Fig: 2, and by dotted lines in Fig: 1. The part D' of the box may then be introduced to complete the parallelepiped. The concrete is then poured into the spaces between the collapsible core or box D, D' and the panels B, B', and the concrete is allowed to remain until it is sufficiently set to permit of the box D, D' being removed, as previously explained. The part D' of the box having been removed, the workman will pass his hand down the space thus vacated and turn the bar E, when the part D of the box may be removed and shifted to another position and made ready for a fresh charge. When the box D, D' is shifted along from one position to another, it will not be placed in immediate juxtaposition to the place it has just vacated, but a space will be left between the old and the new position. This space will be filled with concrete and will form a cross stay *d** that will have the effect of preventing the two shells of the wall from collapsing together, and will add greatly to the stability of the wall. At intervals, in the panels are holes *b*. These holes *b* are plugged with wooden plugs *b** around which the concrete may be cast in the usual way. When the panels B or B' are removed, a wooden plug *b'*, of sufficient length to extend from the external surface of the wall to the opposing inner face of the cavity, is inserted. These plugs will be useful for hanging picture rods, and other fixtures, upon the wall.

In Fig: 4 is exhibited the contour of one of the internal panels adapted to be adjusted over the side of the shell A' seen in Figs: 2 and 3. The projection *a* (see Fig: 2) which is formed by the projection *a'* on said panel is a sill or support for the flooring joists. An analogous projection panel, but with a different contour, may be made for molding or other projections from the plane surface of the wall, the variety of form or contour, to which this system will lend itself, being infinite.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:—

In apparatus for constructing a hollow wall of concrete, a collapsible core or box for coring out a hollow or space between the two faces of the wall, such collapsible core or box consisting of two halves the adjacent or co-operating faces of which are cut on an incline, one half of the box being provided with a key-hole and key for lifting the same, while

the other half is provided with a pivoted bar, such as E, to prevent the box from falling down the hollow space below, as and for the purposes specified.

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

HENRY ARTHUR GODDARD.

Witnesses:

MABEL E. DE LANGE.

MANFIELD NEWTON.