R. DEEDS.
RETAINING AND SUPPORTING FRAME FOR WALL MOLDS.
APPLICATION FILED JUNE 25, 1906.
REED DEEDS, OF CUYAHOGA FALLS, OHIO.

RETAINING AND SUPPORTING FRAME FOR WALL-MOLDS.

To all whom it may concern:

Be it known that I, REED DEEDS, a citizen of the United States, residing at Cuyahoga Falls, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Retaining and Supporting Frames for Wall-Molds, of which the following is a specification.

My invention relates to retaining and supporting frames for wall-molds.

More particularly, my invention belongs to that class of transferable skeleton membered structures adapted to retain a suitable removable mold or system of molds rigidly in place during the filling of the molds and the setting of the plastic material in them, such structures being arranged to permit the raising of the molds and to afford convenient and adequate support for hoisting devices by which the molds are freed from the molded portions of the wall and elevated or transferred to new positions for the purpose of continuing the molding operation.

The object of my invention is the production of apparatus of the nature stated, having special and particular formation of individual elements, arrangement of parts, and mode of operation as a whole, by which it is believed that initial economy of construction of the apparatus itself results, together with greater convenience in moving and placing the molds, and a considerable saving in time and labor in completing a given piece of work.

Of the accompanying drawings, throughout which like letters are used to designate like parts, Figure 1 represents a cross-section of a hollow wall and an end view of the membered frame constructed in accordance with my invention. Fig. 2 is a top plan view of a hollow wall in the course of construction with my invention applied. Considering the drawings, the letters A mark sills or joists arranged upon opposite sides of a wall B, which may be constructed with the middle portion occupied by suitable hollow tiles C, that constitute, however, no part of my invention. Upon the base-sills A the uprights D stand on end. Those uprights are constructed in the form of T-irons, as shown in Fig. 2, for the special purpose set out herebelow. It is also a feature of this construction to bore the ends of meeting members of the uprights correspondingly and to cut away the flange d of one in order that the members may be bolted together and form practically a single continuous vertical piece. By thus combining successive lengths of the same T-shaped cross-section I am able to erect a frame having uprights of any height.

At the bottom in the usual manner one or more tie-wires E are passed about the uprights D, the ends of each wire being twisted together, as shown. As the plastic material of the wall hardens and the wall is completed the wires E are clipped closely to front and rear faces of the wall and remain embedded in the wall. The lower ends of the uprights being placed at a certain desired distance apart, they are prevented by the tie-wires from separating further as the material is packed in.

To hold the uprights at the required distance one from the other as the wall grows, this invention includes the adjustable turn-buckles F, having the double hook ends f. It will be noted that the double hook ends f are adapted to engage the flanges of the T-iron uprights D, and it is believed to be clear from an inspection of Fig. 1 that the turn-buckles may be adjusted to prevent the separation of the uprights beyond a certain distance. It is thought to be equally discernible from the drawings by any one acquainted with the subject that after the material at any given height has set and the separating pressure thus relieved the turn-buckles may be loosened, slipped upwardly, and again clamped to perform their office anew.

It is my practice to connect the tops of the uprights D upon one side or both by means of the U-shaped or flanged iron G. Bolts g secure the iron G to the uprights, and each member of the uprights has a suitable bolt-hole near its end for the passage of the bolt. Over the top flange of the horizontal iron G, as illustrated in Fig. 1, there is placed the hook H, and depending from it is the hoist J. The purpose of the hoist is to elevate and place the various parts directly related to the mold and which will now be described.

At the rear is placed the backing K, formed of planking usually, and to this planking may be secured a suitable mold-board L, adapted to smoothly face the rear of the wall. The eyes k are provided in any number and position to engage the hook J of the hoist. The mold that forms the front or outer face of the wall is marked M. It may be fashioned to cast the plastic material representative of rough stone or common ashler.
Mold M is secured to a backing of planks N, and that backing is in turn attached to a metal lifting-plate P, pierced with orifices p near its upper edge to engage the hook y of the hoist. Against the lifting-plate P is arranged the wedge-plate Q, and this plate is provided with suitable eyes q, constructed to engage the hook of the hoist. It is not necessary to incline the sides of wedge-plate Q to any marked degree, as, in fact, a plate with parallel faces answers very well. The office of the plate is to retain mold M in position shown in Fig. 1.

In the operation of this invention the molding elements are arranged at the bottom of the wall to be made and the plastic material filled in upon each side of tiles C up to the desired height. When the material has hardened, the turnbuckles F that were previously adjusted a short distance above the molds are loosened and slipped upward and reclamped. Next by means of the hoist J the wedge-plate Q is drawn out upwardly and all the molding elements hoisted one after the other into a new and higher position—such, for example, as that indicated for wedge-plate Q by broken lines in Fig. 1. It will be understood that the tie-wires E pass directly through the wall, but between the ends of contiguous molds. Furthermore, should it be necessary to hold the various molding elements in their new positions until filled with plastic material any convenient device, such as hand-clamps R, may be used in any number or place.

Having now described my invention and explained the mode of its operation, what I claim is—

1. In a retaining and supporting frame for wall-molds, the combination with uprights comprising separable members having a T-shaped cross-section and adapted to be united longitudinally thereby arranging the flanges of said members correspondingly and practically continuously, of turnbuckles having double hook ends constructed to engage the flanges of said uprights, an angle-iron arranged horizontally and secured to the upper ends of the topmost members of said uprights, a hoisting device, and a wall-mold comprising separable portions and each portion having devices adapted to engage the hoist whereby each portion may be individually raised, substantially as described.

3. In a retaining and supporting frame for wall-molds, the combination with uprights comprising separable members having a T-shaped cross-section and adapted to be united longitudinally thereby arranging the flanges of said members correspondingly and practically continuously, of turnbuckles having double hook ends constructed to engage the flanges of said uprights, an angle-iron arranged horizontally and secured to the upper ends of the topmost members of said uprights, a hoisting device supported by said angle-iron and horizontally movable thereon, and a wall-mold adapted to be raised by the said hoist, substantially as described.

4. In a retaining and supporting frame for wall-molds, the combination with uprights comprising separable members having a T-shaped cross-section and adapted to be united longitudinally thereby arranging the flanges of said members correspondingly and practically continuously, of turnbuckles having double hook ends constructed to engage the flanges of said uprights, an angle-iron arranged horizontally and secured to the upper ends of the topmost members of said uprights, a hoisting device, and a wall-mold comprising separable portions, one of said portions being a wedge-plate arranged against the uprights upon one side of the mold and adapted to be raised by the hoist, substantially as described.

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

REED DEEDS.

Witnesses:
EMILY FEMLY,
H. F. CASTLE.