Sept. 24, 1957 C. A. THOMAS 2,807,070

APPARATUS FOR CONSTRUCTING PREFABRICATED MASONRY WALLS

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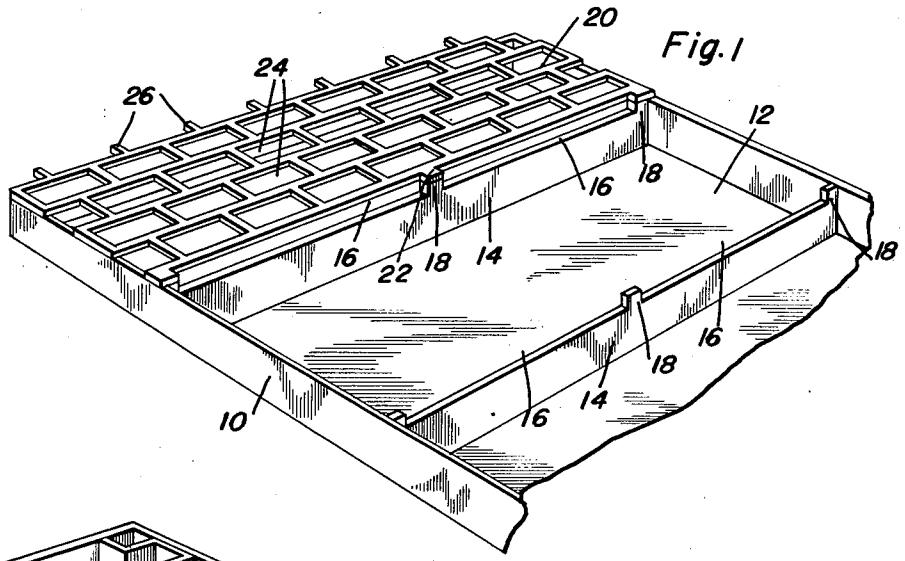


Fig. 1

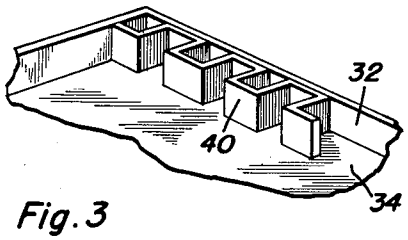


Fig. 3

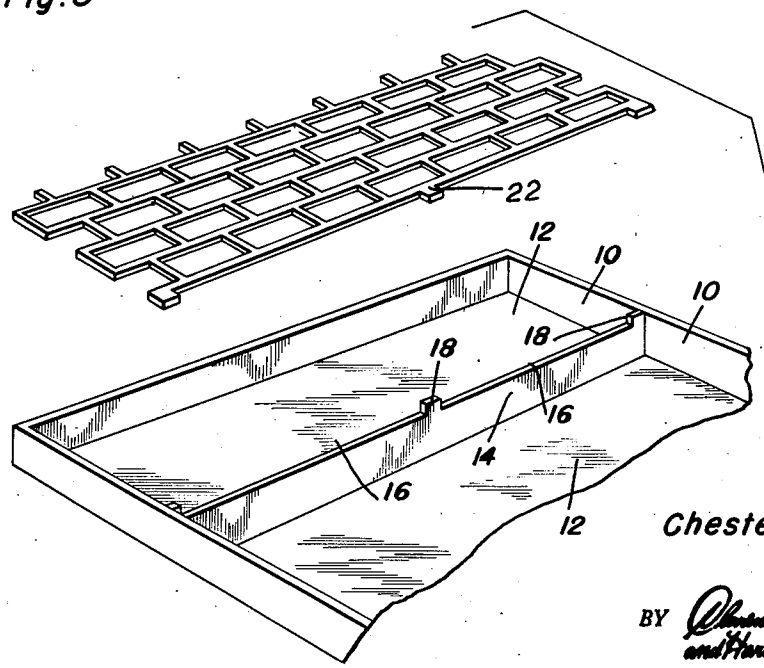


Fig. 2

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Fig. 4

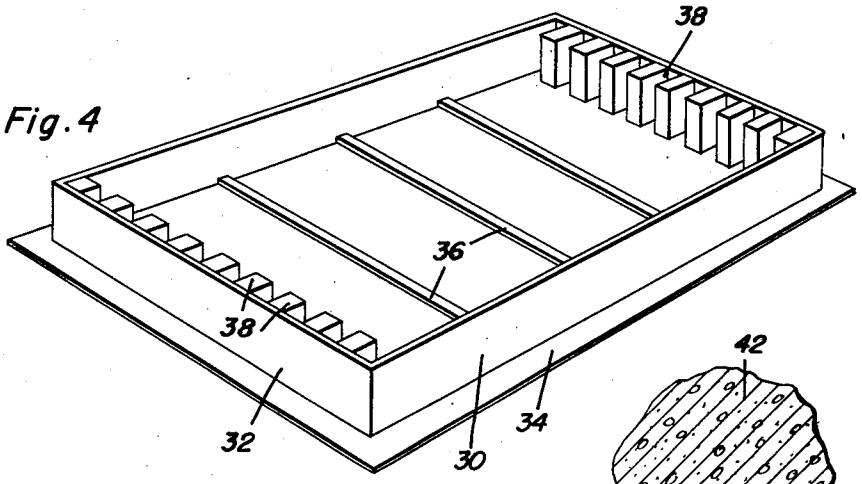


Fig. 7

Fig. 6

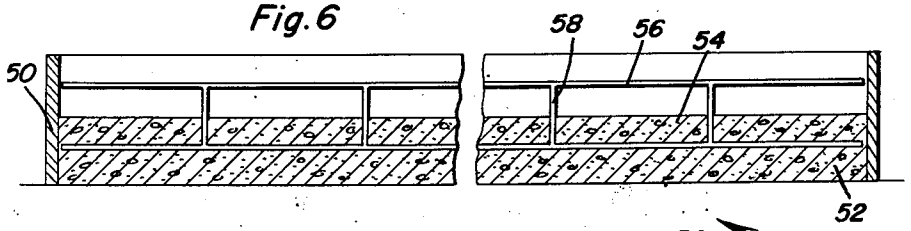
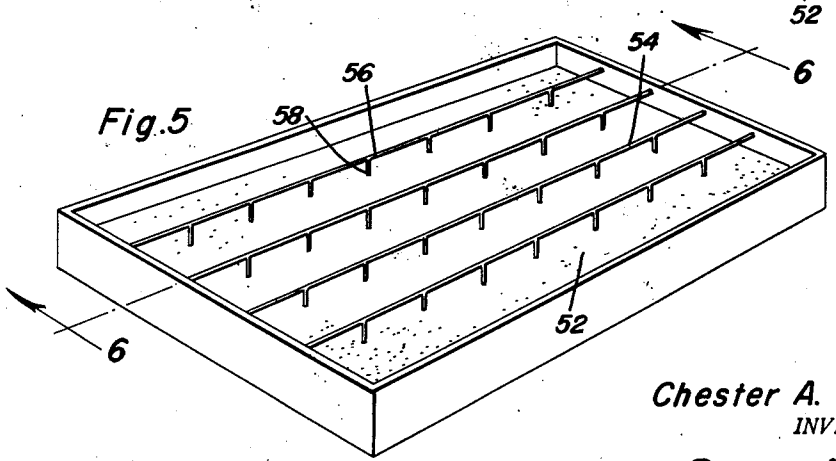


Fig. 5



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APPARATUS FOR CONSTRUCTING PREFABRICATED MASONRY WALLS

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Application August 2, 1954, Serial No. 447,019

3 Claims. (Cl. 25—123)

This invention relates to the class of masonry and concrete building construction and more particularly to a novel apparatus for use in constructing pre-fabricated masonry walls.

The primary object of the present invention resides in the provision of a convenient apparatus for use in the construction of masonry walls having a surfacing of stone, brick, or the like. The pre-fabricated sections of the masonry wall are cast in a substantially horizontal position and after having set for a sufficient period of time are then raised to a vertical position.

A further object of the invention resides in the provision of an apparatus for setting stones, bricks, or other building elements in mortar utilizing a template while also utilizing a spillway for excess mortar thereby assuring that the building elements will be embedded to substantially the same depth.

A further object of the invention resides in the provision of an apparatus for constructing pre-fabricated faced masonry structures utilizing a template and in a manner so that the building elements are bonded in mortar which is substantially integrally formed or tied to the other portions of the masonry wall.

Still further objects and features of this invention reside in the provision of an apparatus for constructing prefabricated masonry walls in a manner so that faced walls can be inexpensively produced which are strong and durable, of attractive appearance, and which are therefore capable of being utilized to speedily erect a building.

There together with the various ancillary objects and features of the invention, which will become apparent as the following description proceeds, are obtained by this apparatus for constructing pre-fabricated masonry walls, preferred embodiments of the apparatus being shown in the accompanying drawings, by way of example only, wherein:

Figure 1 is a partial perspective view illustrating a mold having a series of divider plates seated therein for dividing the molds into two sections and illustrating the manner in which a template is positioned and supported on the mold and the divider plates;

Figure 2 has an exploded perspective view of the apparatus shown in Figure 1;

Figure 3 is a partial perspective view of a dam which may be incorporated in the present invention for forming interlocks for the wall units;

Figure 4 is a perspective view of a modified form of mold;

Figure 5 is a perspective view of a further modified form of mold which incorporates ties;

Figure 6 is an enlarged vertical sectional view as taken along the plane of line 6—6 in Figure 5; and

Figure 7 is a sectional view illustrating the manner in which furring strips may be embedded in the wall sections and which may have furring strips attached thereto.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, and with initial attention directed to Figures 1 and 2 it will be seen that herein there is shown a mold 10 which may be provided of any convenient shape and size which may be provided with a bottom 12 formed of tar paper or the like. The mold 10 is adapted to be divided into two sections by suitable divider plates 14 which are provided with recesses as at 16 opening into the upper surface thereof to form spillways. The recesses 16 form a plurality of upwardly extending supports 18.

Positioned on the mold 10 is a template 20 which is supported by the mold 10 and by the supports 18 which are engaged by lugs 22 extending outwardly from the template 20. The template 20 is made of relatively narrow strips of material having comparatively large apertures 24 therethrough arranged in any manner as may be desired such as for staggered courses of bricks, or for reception of other building elements such as stone or the like. The template 20 may be formed integrally or formed from a plurality of elements suitably secured together by any convenient means. A plurality of outwardly extending pegs 26 are also a part of the template 20 and are adapted to engage and abut against the completed section of the mold after the divider strip 14 has been removed therefrom. The spaces between the pegs 26 provide alignment means for the building elements of the next adjacent section of the completed wall.

In use, after the mortar has been poured within the confines of the mold between the sections of the mold and the first divider plate 14, the rows of brick are inserted. Obviously, upon insertion of the bricks the mortar will rise and the overflow will pass through the spillway formed by the recesses 16. Thus, the bricks which may have been previously soaked in water to reduce the absorptive quality and in which may have had their outer faces coated with linseed oil or the like to prevent the staining of these outer faces, will be permitted to set in the mortar forming a completed wall having a brick facing. The next adjacent wall section will then be intimately bonded with the previous formed section by removing the template 20 and the divider wall 14 forming a boundary of the completed section. The removal of the divider wall 14 is done after the concrete previously poured has become partially set.

In Figure 4 there is shown a modified form of mold 30 which has a peripheral wall 32, positioned above a sheet of tar paper 34 or the like onto which furring strips 36 have been secured. Blocks 38 or forms 40 as can be seen in Figure 3 are optionally used to form a dam at the ends of the mold so that when the cementatious mix is positioned therein a toothed edge for a wall unit will be formed which will permit the interlocking of the various wall units when arranged in an abutting relationship or will permit the bonding of these units by suitable individual bricks. After the mortar has been poured into the mold 30 for a substantial portion of its depth, it is permitted to become partially set after which a thin coat of mortar is positioned thereon in which the bricks or other building elements are embedded using the template for alignment thereof. After the entire structure has set, the wall unit may be raised to a vertical position and the furring strips 36 as can be seen in Figure 7 will be found to have become embedded in the cementatious and set mix 42. Then, additional furring strips performing a space between the finishing surface and the wall 42 in the interior may be affixed by any suitable fasteners, not shown, to the furring strips 38. These supplemental furring strips are generally designated by reference numeral 44.

In Figure 6 there is shown a modified form of the invention which may employ the blocks 38 or the forms 40 for forming a dam if so desired. In this form of the invention the mold joint designated by reference numeral

50 is filled approximately half full with a cementatious mix 52 and suitable ties 54 are embedded in the cementatious mix 52 to approximately half their depth with the longitudinal and vertical portions 56 and 58 respectively extending above the mix 52, then utilizing the template 20 if so desired or utilizing any other suitable means building units may be positioned within the mortar which is first placed so as to cover the ties 54 with the building elements preferably resting on the horizontal surfaces 56 of the ties. This will support the building elements at a common depth in the mortar and the mortar will be tied to the previously partially set concrete mix 52 by the ties 54.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. An apparatus for constructing masonry walls comprising a mold, a divider plate dividing said mold into sections, said divider plate having at least one recess in the upper portion thereof forming a spillway, and a template overlying said mold and resting on said mold and said divider plate, said template having a plurality of apertures therethrough arranged in courses for reception of building elements.

2. An apparatus for constructing masonry walls comprising a mold, a divider plate dividing said mold into sections, said divider plate having at least one recess in the upper portion thereof forming a spillway, and a template overlying said mold and resting on said mold and said divider plate, said template having a plurality of apertures therethrough arranged in courses for reception of building elements, said recess forming spaced upwardly extending supports on said divider plate, said template having lugs seated on said supports.

3. An apparatus for constructing masonry walls comprising a mold, a divider plate dividing said mold into sections, said divider plate having at least one recess in the upper portion thereof forming a spillway, and a template overlying said mold and resting on said mold and said divider plate, said template having a plurality of apertures therethrough arranged in courses for reception of building elements, said recess forming spaced upwardly extending supports on said divider plate, said template having lugs seated on said supports, and a plurality of spaced pegs secured to said template for use in engagement with a completed section of a masonry wall.

References Cited in the file of this patent

UNITED STATES PATENTS

450,286	Enricht	Apr. 14, 1891
1,512,905	Bunker	Oct. 28, 1924
1,518,581	Hellyer	Dec. 9, 1924
1,809,504	Carvel	June 9, 1931
1,853,824	Krauss	Apr. 12, 1932
1,968,189	Bartels	July 31, 1934
2,046,213	Schnurer	June 30, 1936

FOREIGN PATENTS

557,677	Great Britain	May 28, 1946