Aug. 15, 1944. M. E. GREENWALT 2,355,967

CONCRETE BLOCK MOLD

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Fig. 1.

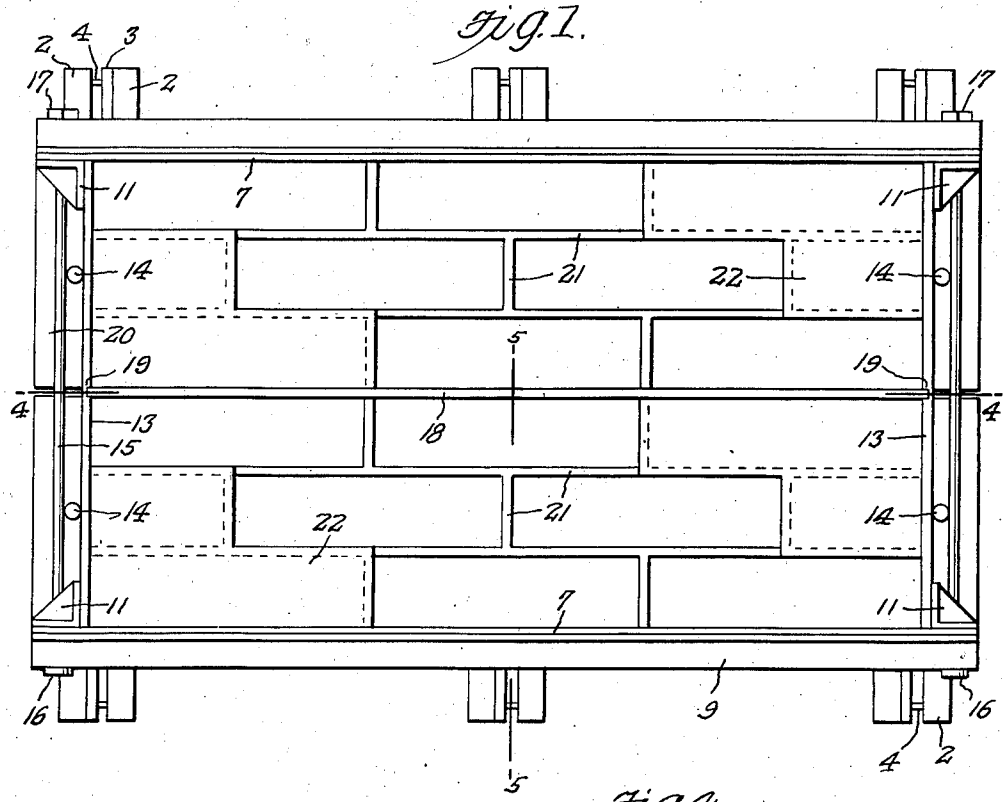


Fig. 4.

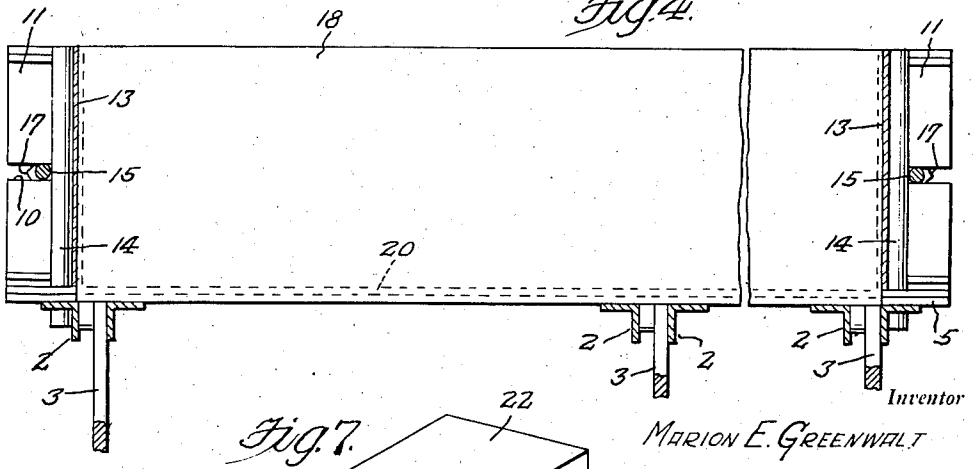
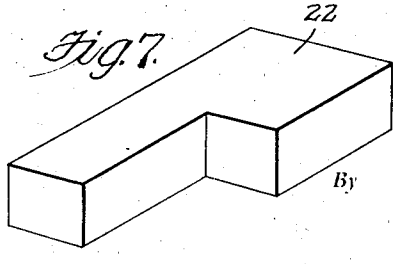


Fig. 7.



Inventor

MARION E. GREENWALT

By Clarence A. O'Brien and Harvey B. Jacobson

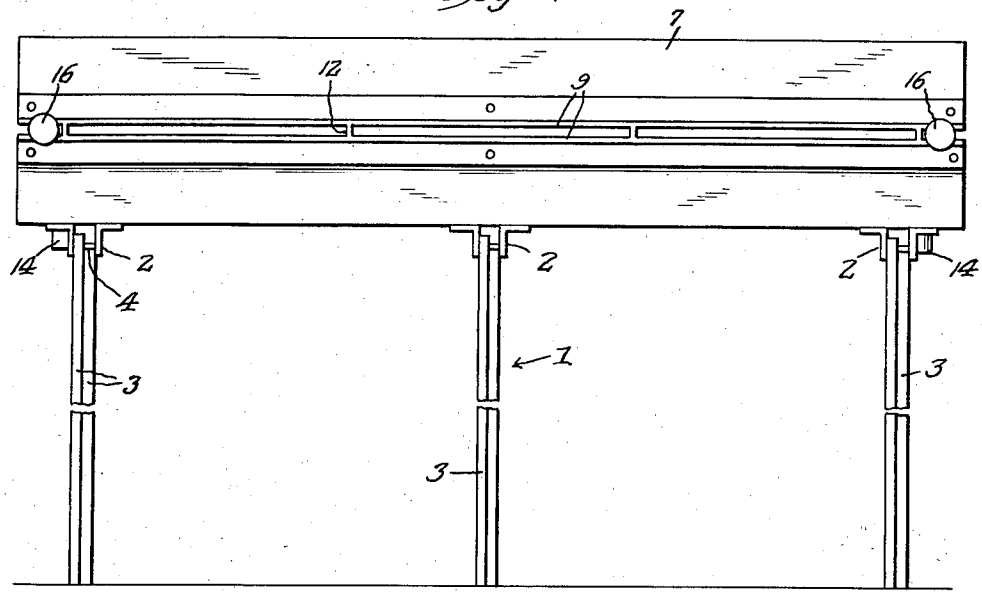
Attorneys

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Fig. 2.



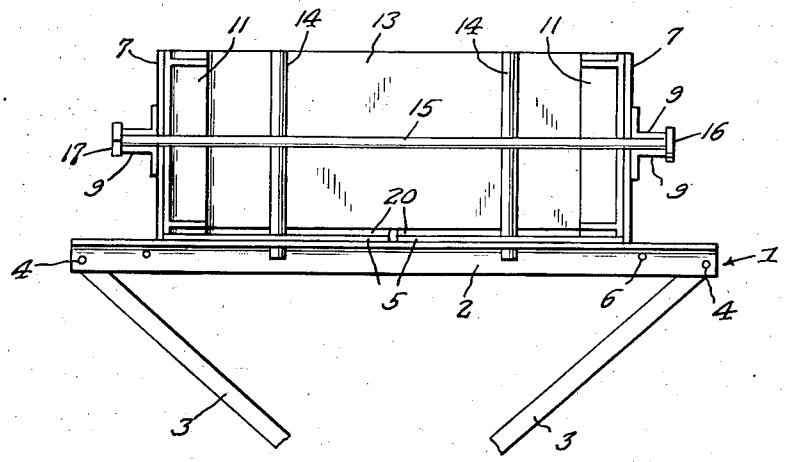


Fig. 3.

Inventor

MARION E. GREENWALT

By Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

Aug. 15, 1944. M. E. GREENWALT 2,355,967

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Fig. 5.

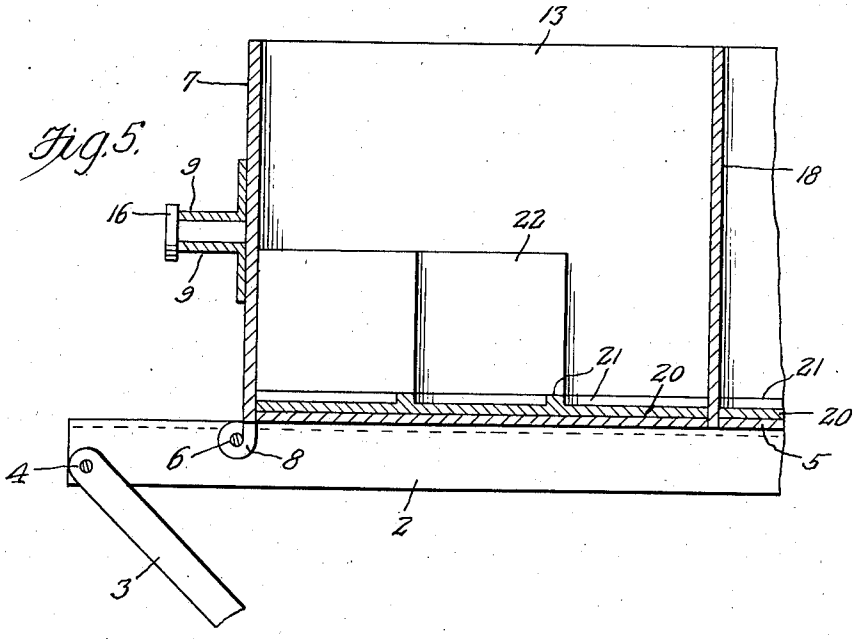


Fig. 6.

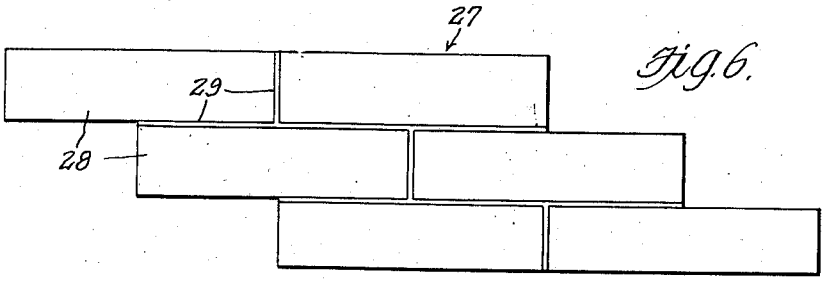
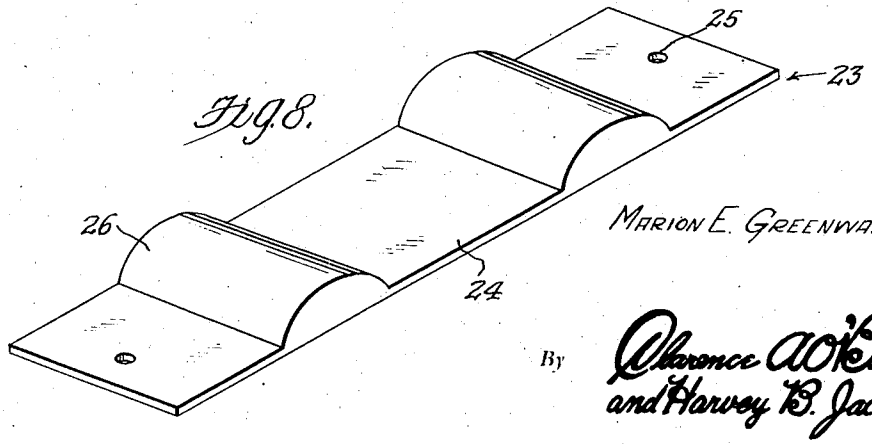


Fig. 8.



Inventor

MARION E. GREENWALT

By Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

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CONCRETE BLOCK MOLD

Marion E. Greenwalt, Elvins, Mo.

Application October 29, 1943, Serial No. 508,125

4 Claims. (Cl. 25—121)

The present invention relates to new and useful improvements in masonry block molds, and has for its primary object, to provide, in a manner as hereinafter set forth, an apparatus of this character comprising a novel construction and arrangement whereby full blocks, half-blocks, corner blocks, et cetera, having imitation brick faces may be rapidly and economically formed.

Other objects of the invention are to provide a block mold of the aforementioned character which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact, and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a top plan view of a mold constructed in accordance with the present invention.

Figure 2 is a view in side elevation thereof.

Figure 3 is an end elevational view.

Figure 4 is a view in vertical longitudinal section through the mold, taken substantially on the line 4—4 of Figure 1.

Figure 5 is a fragmentary view in cross section, taken substantially on the line 5—5 of Figure 1.

Figure 6 is an elevational view of one of the blocks, looking at the face thereof.

Figure 7 is a perspective view of one of the stepped fillers.

Figure 8 is a perspective view of one of the core units.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a base structure which is designated generally by reference numeral 1. The base 1 includes transverse pairs of spaced bars 2 of angle iron which are mounted on the upper end portions of pairs of crossed supporting legs 3. The upper end portions of the legs 3 are secured at 4 between the end portions of the pairs of bars 2.

Secured on the bars 2 is a pair of spaced, parallel, elongated bottom plates 5 of sheet metal. Pins 6 extend between the pairs of bars 2 inwardly of the leg connections 4. Side walls 7 are mounted for swinging movement on the pins 6 through the medium of hinge eyes 8. Pairs of spaced angle irons 9 are mounted longitudinally on the outer sides of the walls 7 for strengthening same. Longitudinal notches or recesses 10 (see Fig. 4) are provided in the end portions of the side walls 7 and communicate with the spaces between the angle iron bars 9, the purpose of which notches will be presently set forth. Cleats 11 in the form of angle irons are fixed vertically on the end portions of the walls 7, on the inner sides thereof. The cleats 11 also have notches therein which are in registry with the notches 10. Webs 12 connect the pairs of bars 9.

Removable and vertically adjustable end walls 13 are mounted between the end portions of the side walls 7 and rest against the cleats 11. End walls 13 have fixed on their outer sides vertical stakes 14 which are slidably engaged in openings which are provided therefor in the end portions of the bottom plates 5 and the outermost bars 2. Transverse rods 15 are mounted between the end portions of the pairs of bars 9 for drawing the side walls 7 inwardly against the ends of the walls 13, the notches 10 in said side walls 7 and in the cleats 11 accommodating said rods. The rods 15 are provided with heads 16 on one end and with nuts 17 on their other end portions.

In the embodiment shown, a vertical, longitudinal partition 18 rests on the cross bars 2 between the spaced bottom plates 5. The end walls 13 have formed therein vertical grooves 19 in which the end portions of the partition 18 are engaged. Mounted on the bottom plates 5 on opposite sides of the partition 18 are pattern or lining plates 20. The lining plates 20 project beneath the end walls 13 and have formed in their end portions openings which accommodate the stakes 14. The lining plates 20 include upstanding ribs 21 which form the representations of joints between the imitation bricks in the finished blocks. The ribs 21 are slightly tapered to facilitate separation of the blocks therefrom.

It is thought that the operation of the invention as thus far described will be readily apparent from a consideration of the foregoing. Briefly, the partition 18 is positioned between the bottom plates 5, the linings 20 are mounted on said bottom plates, after which the end walls 13 are placed in position. The side walls 7 are then swung upwardly and inwardly against the ends of the walls 13 and firmly secured through the medium of the rods 15. The material may then be poured. To remove the blocks after the concrete has set, the side walls 7 are released and swung downwardly and the end walls 13 are removed.

In the above-described operation, elongated

blocks of uniform length, height and thickness are produced. When blocks having either or both ends stepped are desired, angular fillers 22 are placed in either or both end portions of the compartments or chambers defined in the mold by the partition 18. These fillers 22 may be reversed for stepping the ends of the blocks either to the right or to the left.

When inside blocks having air or ventilating passages therein are to be formed, linings 23 are substituted for the linings 20. The linings 23 comprise elongated plates 24 which project beneath the end walls 13 and which have formed in their end portions openings 25 for the passage of the stakes 14. Thus, the plates 24 are positively secured against longitudinal or lateral movement. Rising from the plates 24 are substantially segmental, transverse cores 26 which form the recesses in the blocks when the material is poured thereon.

In Figure 6 of the drawings, a finished face block is shown at 27, said block including imitation bricks 28 with joints 29 therebetween. The imitation bricks and joints 28 and 29, respectively, may be painted or otherwise treated as desired.

It is believed that the many advantages of a concrete block mold constructed in accordance with the prseent invention will be readily understood, and although a preferred embodiment of the device is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

1. A mold comprising a base, a bottom plate mounted on said base, a lining removably mounted on the bottom plate, said lining and bottom plate having registering openings therein, end walls removably mounted on the lining, stakes on the end walls engaged in the openings, side walls hingedly mounted on the base, and means for securing said side walls against the ends of the end walls.

2. A mold comprising a base including pairs of spaced cross bars, crossed supporting legs secured between the end portions of the pairs of cross bars, pins extending between the pairs of cross bars, a bottom plate mounted on the cross bars, a removable lining mounted on the bottom plate, said lining, the bottom plate and certain of the cross bars having aligned openings therein, end walls removably mounted on the lining, vertical stakes on the end walls engaged in the openings, side walls journaled for swinging movement on the pins, and means for releasably securing said side walls against the ends of the end walls.

3. A mold comprising a base, a pair of spaced bottom plates mounted on said base, a pair of spaced linings removably mounted on the bottom plates, said linings, bottom plates and the base structure having aligned openings therein, end walls removably mounted on the end portions of the linings, vertical stakes on the end walls engaged in the openings, said end walls having vertical grooves therein, a vertical partition resting on the base structure and passing between the pairs of bottom plates and linings, the end portions of said partition being engaged in the grooves, side plates hingedly mounted on the base structure, and means for releasably securing said side plates against the ends of said end walls.

4. A block mold comprising a base structure including pairs of spaced cross members and supporting legs secured to said cross members, a bottom plate fixed on the cross members, a lining removably mounted on said bottom plate, said lining, the bottom plate and certain of the cross members having aligned openings therein, said lining comprising a plate and substantially segmental cores rising therefrom, removable end walls mounted on the lining, stakes on the end walls engaged in the openings, side walls hingedly mounted between the pairs of cross members and engageable with the ends of the end walls, and means for releasably securing said side walls against said end walls.

MARION E. GREENWALT.