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D. McPHERSON ET AL

MOLD AND PROCESS OF MOLDING FACED CONCRETE BLOCKS

Filed Sept. 9, 1924

Fig. 1.

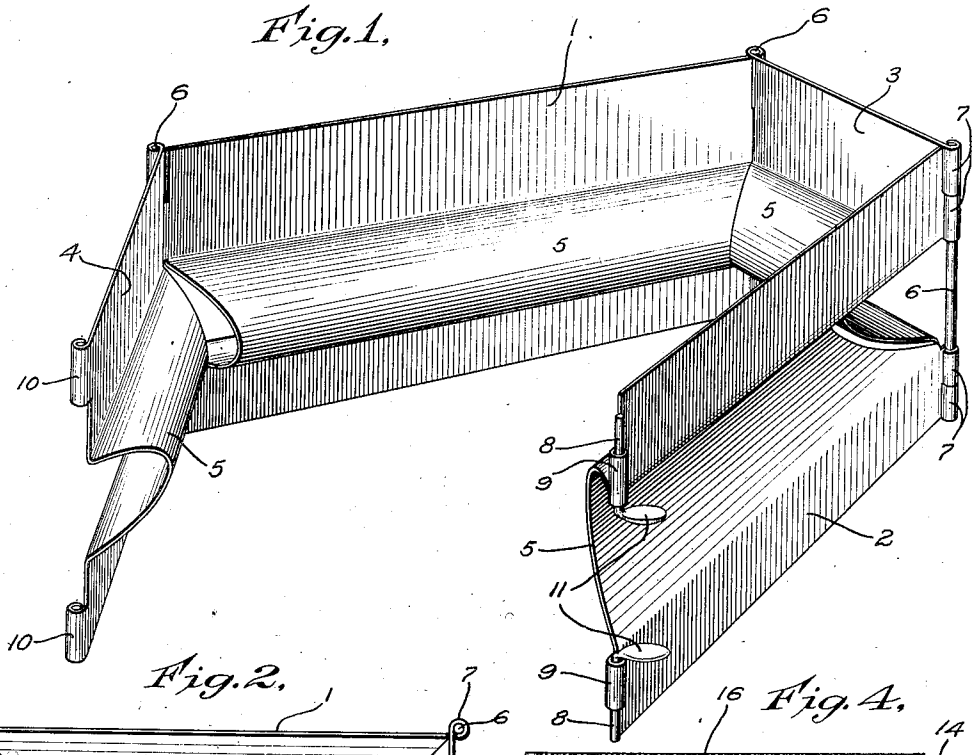


Fig. 2.

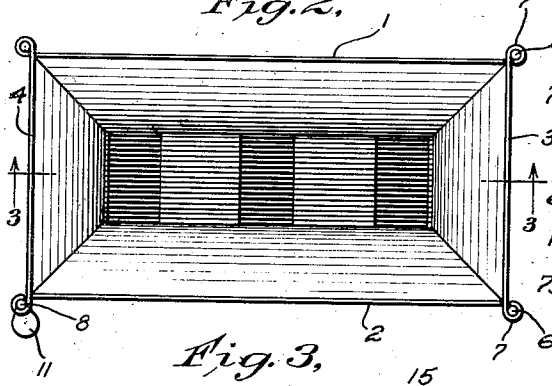


Fig. 4.

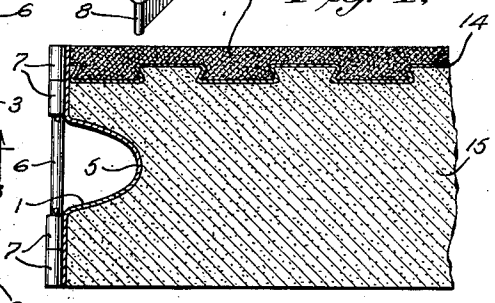


Fig. 3.

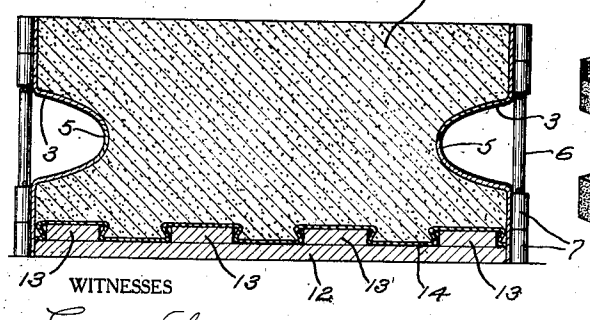
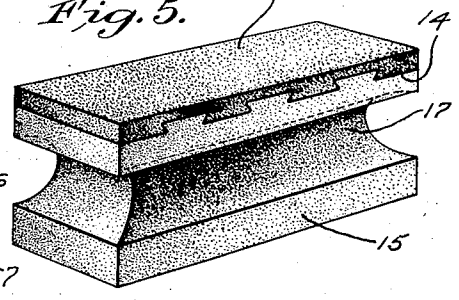


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

DONALD McPHERSON AND FREDERICK B. SCHULTZ, OF NEW YORK, N. Y., ASSIGNORS TO KEYROID CEMENT BLOCK CO., INC., OF CORONA, NEW YORK, A CORPORATION OF NEW YORK.

MOLD AND PROCESS OF MOLDING FACED CONCRETE BLOCKS.

Application filed September 9, 1924. Serial No. 736,745.

This invention relates to molds and more particularly to a mold designed for forming concrete building blocks, an object of the invention being to provide a mold which will properly shape the block, which can be readily opened to discharge or release the block, and which will hold the block when partially formed so that it can be reversed and facing material located thereon.

A further object is to provide a mold which is designed for making blocks such as disclosed in the prior application of F. B. Schultz, filed March 17, 1924, Serial No. 699,920.

A further object is to provide a mold composed of sheet metal, having means for locking the sections in rectangular formation and which means permit the ready opening or separation of the sections to discharge the block.

A further object is to provide a mold of this character which can be manufactured and sold at a reasonably low price, which will have long life and which will most efficiently perform the functions for which it is intended.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts which will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a perspective view of our improved mold showing the same in partially open position;

Figure 2 is a top plan view of the mold showing the form and waterproof material located thereon at the bottom of the mold;

Figure 3 is a view in vertical section illustrating the first stage of the block molding operation;

Figure 4 is a fragmentary view in vertical section showing the mold reversed and illustrating the completed molding operation;

Figure 5 is a perspective view of a block formed in our improved mold.

Our improved mold comprises four members, namely, side members 1 and 2 and end members 3 and 4. The side members are preferably longer than the end members and all of said members are preferably composed of relatively heavy sheet metal having longitudinal inwardly projecting curved offset portions 5. The material of the sides and ends at the offset portions are cut at an angle so as to allow the members 1, 2, 3 and 4 to be arranged in rectangular formation and closely fit one against the other to form a tight mold.

The sides 1 and 2 are connected to the end 3 by hinge pins 6. These hinge pins are projected through alined sleeves 7 on the respective sections and may be permanently or removably secured as may be desired. The end section 4 is connected to the side section 1 by a hinge pin 6, as above described in connection with the other sections, but the end section 4 and side section 2 are removably connected so as to allow the sections to be swung on their hinge pins and opened as much as may be desired.

As a closing means for the mold, or, in other words, as a means for connecting member 4 with the side member 2, we preferably provide a pair of plungers or locking pins 8 located in sleeves 9 on side member 2 and adapted to engage in corresponding sleeves 10 on end section 4. These locking pins or plungers 8 are preferably provided with fingerholds 11 at their inner ends so that they may be conveniently manipulated either to lock the mold sections together or to permit their release.

In operation the mold sections are secured in closed position as in Figures 2 and 3, and a form 12 is located in the bottom of the mold. This form 12 may constitute a strip of wood or other suitable material having transverse blocks or strips 13 on its upper face. These blocks or strips 13 are spaced apart as may be desired, and on top of the form a sheet 14 of waterproof material is located. This sheet 14 is corrugated before positioning on the mold and the corrugations are of appreciably greater width than the width of the strips 13, so that when the sheet 14 is placed on the form the corrugations of the sheet 14 will assume a dovetail formation. With the form and waterproof sheet positioned in the mold the concrete 15, preferably wet, is poured into the mold so as to fill the same flush with the upper edge as indicated in Figure 3. As soon as this material is sufficiently set, the mold is reversed and the form 12 removed. Facing material 16 is then poured

into the mold on top of the waterproofing sheet 14 and smoothed or surfaced as may be desired and allowed to remain in the mold until sufficiently set. When the block is ready for removal the mold sections 2 and 4 are disconnected and then the mold is swung to open position, the hinge pins 6 permitting the opening as far as may be desired to completely release the block.

It will be noted that the inwardly offset portions 5 of the mold form recesses 17 in the sides and ends of the block so that the blocks when in a wall provide both vertical and longitudinal air passages which can keep the wall dry and which insures a cold wall in summer and a warm wall in winter; also by reason of the arrangement of the waterproofing sheet 14 the passage of moisture through the block is absolutely prevented and the facing is secured to the block by a dovetail interlock.

Various slight changes and alterations might be made in the general form of the parts described without departing from our invention, and hence we do not limit ourselves to the precise details set forth but consider ourselves at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of the appended claims.

We claim:

1. The method of forming molded waterproof building blocks, which consists in inserting in the bottom of the mold a spacing bottom; in laying on said bottom a sheet of waterproof material; in filling the mold space above the sheet with block material; in permitting the material to harden; in inverting the mold and its contents; in removing the spacing bottom; in filling the mold space above the opposite side of the sheet with block material; in permitting the block material to harden and in removing the completed block from the mold.

2. The method of forming molded waterproof building blocks which consists in inserting in the bottom of the mold a spacing bottom; in laying horizontally on said mold bottom a sheet of waterproof material having on opposite sides complementary depressions dovetail in section; in filling the mold space and dovetail depressions of the sheet with the soft block material; in permitting the soft block material to harden; in inverting the mold and its contained block section and removing the spacing bottom; in filling the opposite mold space and dovetail corrugations of the sheet with soft block material; in permitting the block material to harden, and in removing the completed block from the mold.

3. The method of forming molded waterproof building blocks which consists in inserting in the bottom of the mold a spacing bottom having a series of ribs on its inside; in forming in a sheet of flexible waterproof material corrugations corresponding to the ribs but deeper and wider than the same; in contracting the sheet horizontally so as to dovetail the corrugations; in laying the corrugated sheet on the ribbed mold bottom so that the open corrugations will rest on the bottom between the ribs and the closed corrugations will rest on the ribs; in filling the mold space above the sheet and the dovetail corrugations therein with the soft block material; in permitting the material to harden; in inverting the mold and its contents, and removing the ribbed spacing bottom; in filling the opposite mold space and dovetail corrugations of the sheet with soft block material; in permitting the material to harden; and in removing the completed block from the mold.

4. Means for forming molded waterproof building blocks, comprising a mold, a removable bottom to fill the space in the bottom of the mold and having elevations on its inside and a sheet of waterproof material having on opposite sides complementary depressions dovetail in section and corresponding to the elevations on the bottom, the open depressions to rest on the bottom between the corresponding elevations and the closed depressions to rest on the corresponding elevations of the bottom.

5. Means for forming molded waterproof building blocks by molding material on opposite sides of a waterproof sheet formed with dovetail corrugations, comprising a mold, and a removable bottom to fill the space in the bottom of the mold, said bottom having in its inside a series of parallel corrugations corresponding to but a little narrower and lower or shallower than the dovetail corrugations in the waterproofing sheet.

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