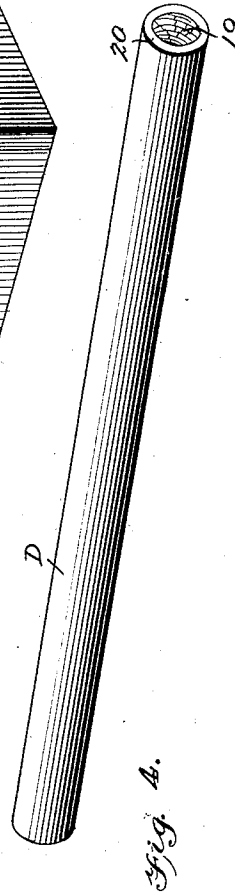
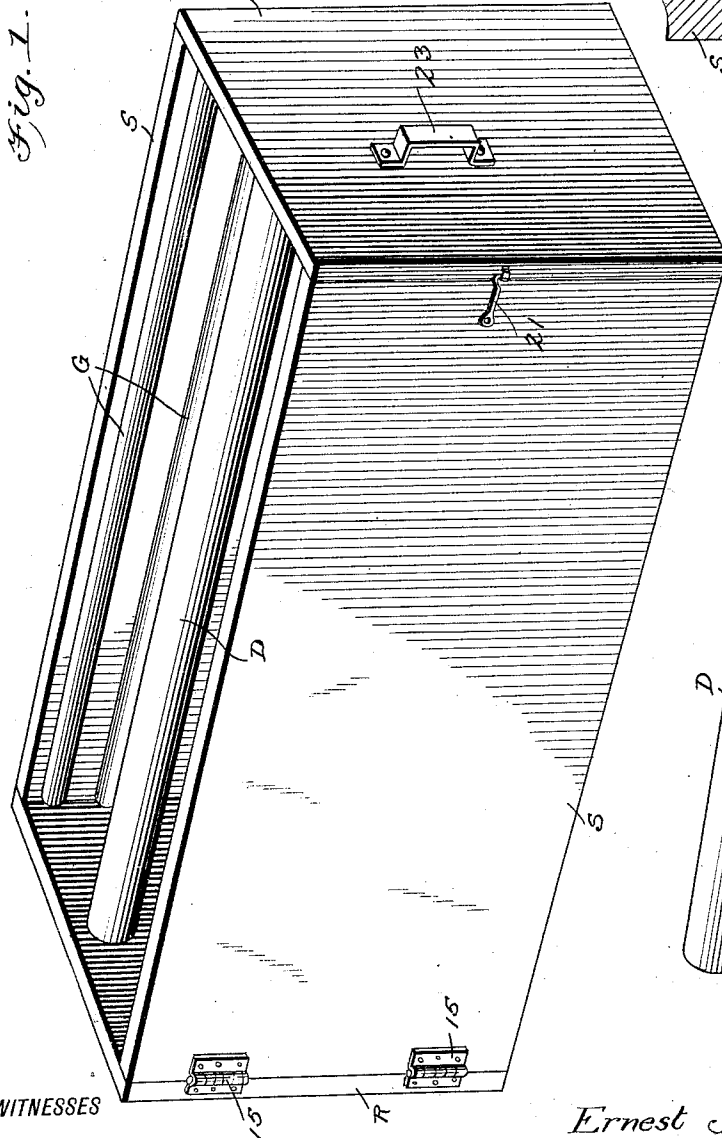
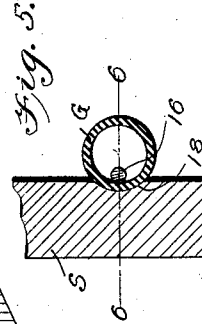


1,408,685.

2 SHEETS—SHEET 1.



WITNESSES

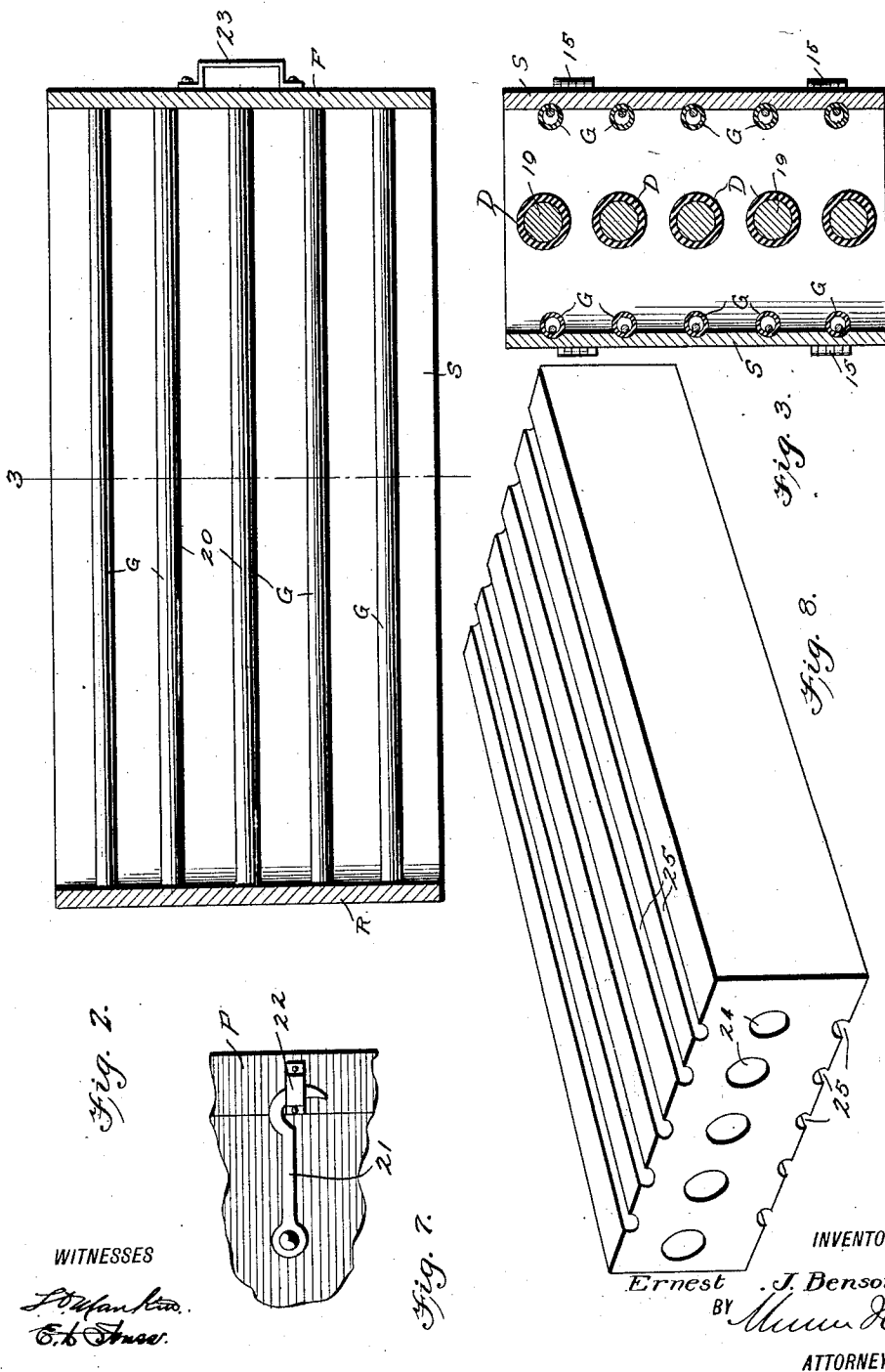
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1,408,685.

Patented Mar. 7, 1922.

2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

ERNEST JOHN BENSON, OF BLACKFOOT, IDAHO.

PLASTIC-BLOCK MOLD.

1,408,685.

Specification of Letters Patent.

Patented Mar. 7, 1922.

Application filed November 6, 1920. Serial No. 422,244.

To all whom it may concern:

Be it known that I, ERNEST JOHN BENSON, a citizen of the United States, and a resident of Blackfoot, in the county of Bingham and State of Idaho, have invented certain new and useful Improvements in Plastic-Block Molds, of which the following is a specification.

My invention relates to molds for forming building blocks of a plastic material, and the purpose of my invention is the provision of a mold which is capable of forming a block with ducts extending completely through the body of the block and grooves in the side of the block, such grooves being designed to receive and to effectively secure plaster when applied to the sides of the block.

Furthermore, my invention provides a mold of extremely simple construction, and one which is capable of being readily disassembled to permit the removal of the block.

I will describe one form of mold embodying my invention and one form of block, and will then point out the novel features thereof in claims.

In the accompanying drawings:

Figure 1 is a view showing in perspective one form of mold embodying my invention.

Figure 2 is a longitudinal sectional view of the mold shown in Figure 1.

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a detail perspective view of one of the duct forming members.

Figure 5 is a fragmentary vertical sectional view of one of the groove forming members showing the manner in which it is secured to the sides of the mold.

Figure 6 is a fragmentary vertical sectional view taken on the line 6—6 of Figure 5.

Figure 7 is a fragmentary view showing in side elevation the locking means for securing the front end of the mold in active position.

Figure 8 is a perspective view of the block formed by the mold.

Similar reference characters refer to similar parts in each of the several views.

Referring specifically to the drawings, the mold in its present embodiment is of rectangular formation and comprises a rear end wall R, side walls S and a front end wall F. The side walls S are hingedly con-

nected to the rear end wall R by means of hinges 15 as clearly shown in Figure 1 so that they can swing from the parallel spaced position outwardly to permit the ready removal of the molded block from the mold. Each side wall S carries a plurality of groove-forming members G which are substantially co-extensive in length with the walls and are arranged at regular spaced intervals from the bottom edges to the top edges of the walls. As clearly shown in Figures 3, 5 and 6, each groove-forming member comprises a tube formed of any flexible material which will not adhere to a plastic material. In the present instance I employ rubber tubing, I having found that rubber gives the requisite flexibility while at the same time it will not adhere to any plastic material, that is when the material is set. Each groove-forming member G is secured in proper position on and to the corresponding side wall S by means of a rod 16 which passes through the tube and has its opposite ends bent at right angles to provide extensions 16^a which contact with the vertical edges of the side wall and are secured thereto by means of fastening members 17. As clearly shown in Figure 6, the confronting edges of the side walls S are recessed at the proper points to receive the extensions 16^a so that the latter will lie flush with the surfaces of the edges thereby permitting the proper interfitting of the side walls with the end walls. As shown in Figure 5, each groove-forming member G reposes within a groove 18 of arcuate contour in cross section, the rod 16 embracing the tubular member at this point so that it will be securely held in proper position within the mold.

The front end member F carries a plurality of duct-forming members D which are arranged in a vertical series and in spaced parallel relation to each other as clearly shown in Figures 2 and 3. Each duct-forming member D comprises a core 19 upon which is snugly fitted a tubular jacket 20. The core 19 is of such a length that its free end contacts with the inner face of the rear end wall R when the front end wall F is in applied position. The jacket 20 is preferably formed of rubber or any other material which will not adhere to the plastic material introduced into the mold for forming the block.

The front end wall F is securely held in

applied position by means of hooks 21 pivotally mounted upon the side members S and engageable with keepers 22 carried by the vertical edges of the front end wall. A handle 23 is provided on the front end wall to facilitate the application and removal of the duct-forming members to and from the mold.

In the operation of the mold, it is locked in the form shown in Figure 1 and when placed upon a flat surface, a plastic material is introduced to the upper side of the mold. When the mold has been completely filled with a plastic material and allowed to stand a time sufficient to allow the setting of the material, a block such as that shown in Figure 8 is formed. As here shown, the body of the block is formed with a plurality of longitudinally extending ducts 24 of circular form in cross section. It will be understood, the ducts 24 are formed by the members D, and because of the length of such members the ducts extend completely through the body of the blocks. The opposite sides of the block are formed with a plurality of longitudinally extending grooves 25, each of which is coextensive in length with the block and has a cross sectional contour of arcuate form which is greater than a semi-circle. This particular form of groove provides channels for the reception of mortar, and because of the fact that they are greater than a semi-circle in cross sectional contour, effects a locking of the mortar within the grooves thereby securely locking the mortar of one block with that of an adjacent block and thus securely retaining any two adjacent blocks together.

After the block has been properly set, the mold can be readily removed from the block by first disengaging the hooks 21 from the keeper 22 and then gripping the handle 23 and pulling the front end wall F outwardly from the mold. With this movement of the front end wall, the several duct-forming members D are withdrawn from the ducts 24 of the block, and because of the fact that the jackets 20 are formed of rubber, such withdrawal is unrestricted because the plastic material will not adhere to the jackets. The side walls S are now swung outwardly from the block, the several groove-forming members G readily passing

laterally out of the grooves 25 of the block. This ready removal of the groove-forming members from the grooves 25 is accomplished by virtue of the fact that the members are formed of flexible material thereby permitting their compression when reaching the inturned edges of the grooves. Likewise, the groove-forming members being formed of rubber will not adhere to the surface of the block so that no disfigurement of the same occurs during its removal.

With the members D withdrawn from the block and the side walls swung outwardly, it will be clear that the mold can be disengaged from the block, and reassembled at another point for the forming of a second block.

Although I have herein shown and described only one form of block mold embodying my invention, it is to be understood that various changes and modifications may be made herein without departing from the spirit of the invention and the spirit and scope of the appended claims.

What I claim is:

1. A block mold comprising, a rear end wall, side walls hingedly connected to the rear end wall for outward swinging movement, groove-forming members secured to the confronting sides of the side walls and each comprising a flexible tubular member, a rod for securing the member in position upon the side wall, a front end wall detachably secured to and spanning the side walls, and duct forming members secured to the inner sides of the front end wall, each of said duct forming members comprising a core and a jacket embracing the core.

2. A block mold comprising, a rear end wall, side walls hingedly connected to the rear end wall for outward swinging movement and having grooves formed in the confronting faces thereof, groove-forming members disposed within said grooves and comprising tubular members formed of rubber and rods extending through the members opposite said grooves and secured to the vertical edges of the side walls, a front end wall detachably secured to the side walls, and duct-forming members secured to the front end wall and each comprising, a core and a rubber jacket for the core.

ERNEST JOHN BENSON.