Apr. 17, 1923. 1,452,247

T. A. MAYBERRY

MOLD FOR MAKING CEMENTITIOUS PRODUCTS

Filed Oct. 31, 1921

Fig. 1

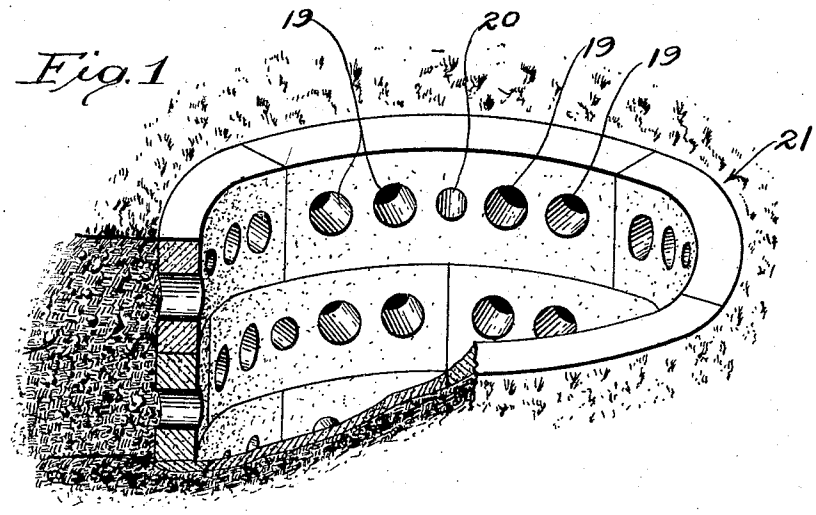


Fig. 2

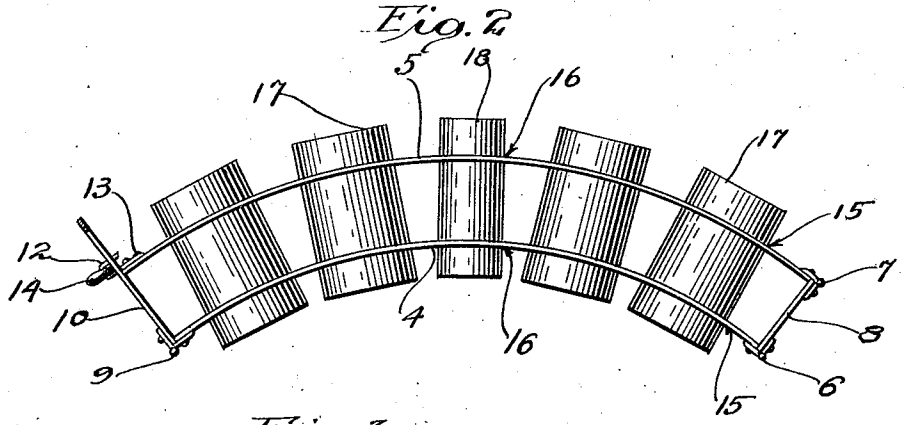
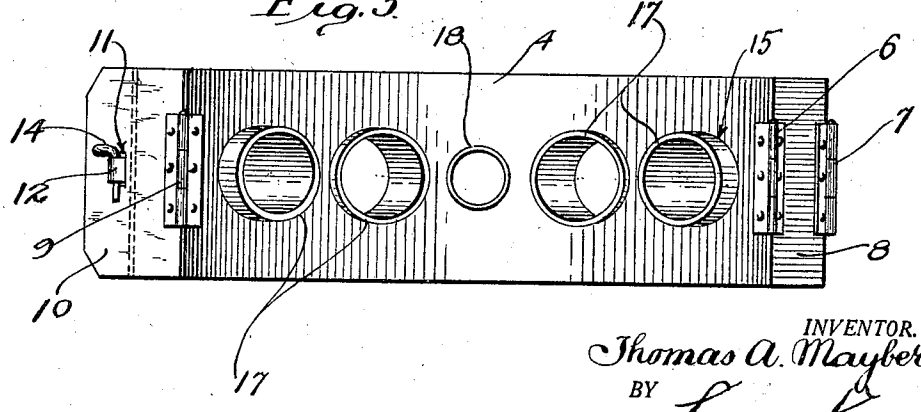


Fig. 3



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UNITED STATES PATENT OFFICE.

THOMAS A. MAYBERRY, OF LOS ANGELES, CALIFORNIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF FOUR-FIFTHS TO WALTER E. WINFIELD, OF LA VERNE, CALIFORNIA, AND ONE-FIFTH TO M. THOMPSON, OF POMONA, CALIFORNIA.

MOLD FOR MAKING CEMENTITIOUS PRODUCTS.

Application filed October 31, 1921. Serial No. 511,735.

To all whom it may concern:

Be it known that I, THOMAS A. MAYBERRY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Mold for Making Cementitious Products, of which the following is a specification.

This invention relates to molds in which cement or concrete is cast for giving shape to the product, after the cement has set. The blocks produced by this mold are well adapted for the construction of cess pools and other circular or curved walls.

An object of the invention is to provide a mold for making a circular or curved perforate wall to permit ready seepage of liquids through the wall.

Another object is to provide a mold that is easy to operate and which can be quickly used in casting the concrete blocks.

The accompanying drawings illustrate the invention.

Figure 1 is a perspective view of a wall made of blocks cast in a mold constructed in accordance with this invention, a portion of the earth in which the wall is placed and some of the blocks being shown in section.

Figure 2 is a plan view of a mold constructed in accordance with the invention.

Figure 3 is an inverted plan view of Fig. 2.

The mold is constructed as follows:

There are provided a pair of curved or arcuate members, an inner member 4 and an outer member 5, concentric with each other and the outer member of greater length than the inner member. The members 4, 5 are hinged respectively at 6, 7 to an end member 8 which is radially disposed with relation to the generating center of the arcs to which the members 4, 5 conform.

Hinged at 9 to the inner member 4 is an end member 10 provided with an orifice 11 through which extends a hook or eye 12. The member 10 is radially positioned with reference to the generating center of the arcs to which the members 4, 5, conform. The hook 12 is secured by rivets 13 to the adjacent end of the member 5. The wall 10 thus constitutes a door or gate which can be swung into open and closed positions. The member 10 will be releasably held in the closed position, shown in Fig. 2, by a bolt 14 which engages the hook 12 adjacent the outer face of the member 10.

The members 4, 5 are provided with holes 15, 16, the hole 16 being of less diameter than the holes 15. Removably mounted in the hole 15 are cores 17 of tubular or other suitable construction, and also removably mounted in the holes 16 is a core 18 of less diameter than the cores 17.

When it is desired to cast a concrete block, the gate 10 will be latched in closed position, as in Figs. 2 and 3, and the cores 17, 18 will be inserted in the holes 15, 16 as in said views. It is noted that when the cores are in position, their axes are radial with respect to the generating center of the arcs to which the members 4, 5, conform, and this is the preferred construction, though it is not absolutely essential.

When the parts have been placed in the positions as just described, a concrete mixture of any suitable proportions of cement and aggregate is poured into the top of the mold and is tamped in a manner well understood in the art pertaining to the molding of artificial stone blocks, so as to minimize the size of the voids. Of course, in using the mold, it will be placed upon a flat surface, such as a board. After the material has been well tamped into the mold, the cores 17, 18 will be withdrawn from the members 4, 5, the bolt 14 will be withdrawn from the hook 12, and the gate 10 will be swung open. Then the members 4, 5 will be spread apart at their unconnected ends sufficiently to permit said members to be withdrawn from the molded block which now rests upon the board or other surface upon which it has been molded. The block thus cast is permitted to set and can then be employed as a unit in the construction of a circular or curved wall. After the mold has been thus removed from the molded block, the various parts may be returned to the initial positions described above and shown in Figs. 2 and 3, and the above described operations may then be repeated to make a second block, and so on, The finished blocks are of arcuate form, and the end faces of the block are in radial relation to the generating center of the arcuate faces. The block has holes 19, 20 formed by the cores 17, 18 and extending from one curved face to the other.

After the blocks thus molded have stood for a sufficient length of time to effect the proper setting of the concrete, the wall constructor will place a number of blocks end to end to form one course of a curved wall. Such a wall is shown at 21 in Fig. 1 of the drawings and the wall may be assumed to be the lining of a cess-pool. The length of arc of the members 4, 5 will be such that a given number of blocks will produce a complete circle. In the instance shown in Fig. 1, five such blocks are required to complete the circle. After the first course of blocks is laid, a second course will be laid upon the first with the joints between the blocks of the second course in staggered relation with the joints between the blocks of the first course. The cylindrical wall thus constructed is very strong because of the arch shape of the block together with the fact that the blocks abut one another perfectly to produce a continuous circular wall. Thus the earth pressure coming against the outside of the cylindrical wall cannot displace the blocks because of the perfect arch action at any given point of the wall. Seepage can readily take place through the openings, 19, 20.

The advantage of this newly invented block will be more clearly understood by a consideration of the construction of the ordinary brick lined cess-pool, the results produced by seepage of the liquids through the joints between the bricks and the earth pressure upon the outer faces of the bricks. It is well known that in the course of time the liquids wash away the earth from adjacent the outer face of a brick wall, thus forming cavities adjacent the outer face of the wall. Caving in of the earth then occurs and the shock produced thereby is sufficient to displace bricks from the wall. It is to avoid these objectionable results that I have invented this block and mold for making the same. It is to be noted that seepage of the liquids takes place through the openings 19, 20 and that it is unnecessary to depend upon seepage through the joints between adjacent blocks as in a brick lined cess-pool. Another advantage of this wall construction over prior cess-pool wall constructions is that a much greater area for seepage of the liquids is provided by the holes 19, 20, than by the joints between the bricks of the wall.

The reason for making the hole 20 in the block smaller than the holes 19 is to avoid undue weakening of the block at the middle portion thereof since, in constructing the wall, the block is picked up at the middle portion and, were there too little material between the central hole and the edges of the block, there would be danger of the block breaking in half.

It will be readily comprehended that a wall built from the improved blocks can be very quickly and cheaply constructed and that after years of service the wall is just as strong as when first built, which cannot be said of the brick wall referred to above.

I claim:

1. In a mold for concrete wall blocks, the combination of an end member, other members hinged to the opposite ends of the end member and provided with holes, a gate hinged to one of the second named members, means releasably fastening the gate to the other of the second named members, and cores removably mounted in the holes.

2. In a mold for concrete wall blocks, the combination of an end member, concentric arcuate members, one of the arcuate members being connected with the end member and the other arcuate member being hinged to the end member, a gate hinged to one of the arcuate members, and means to releasably fasten the gate to the other arcuate member.

3. In a mold for concrete wall blocks, the combination of an end member, concentric arcuate members hinged to the end member, a gate hinged to one of the arcuate members, and means releasably fastening the gate to the other arcuate member.

Signed at Los Angeles, California, this 20th day of October, 1921.

THOMAS A. MAYBERRY.

Witnesses:

GEORGE H. HILES,

L. BELLE WEAVER.