Dec. 13, 1927. 1,652,180

E. S. NICHOLAS

MOLD FOR CONCRETE BUILDING BLOCKS

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Fig. 1.

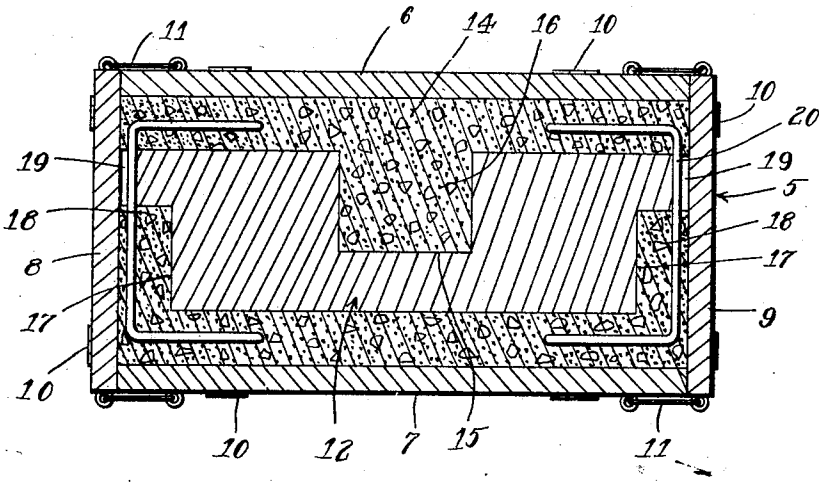
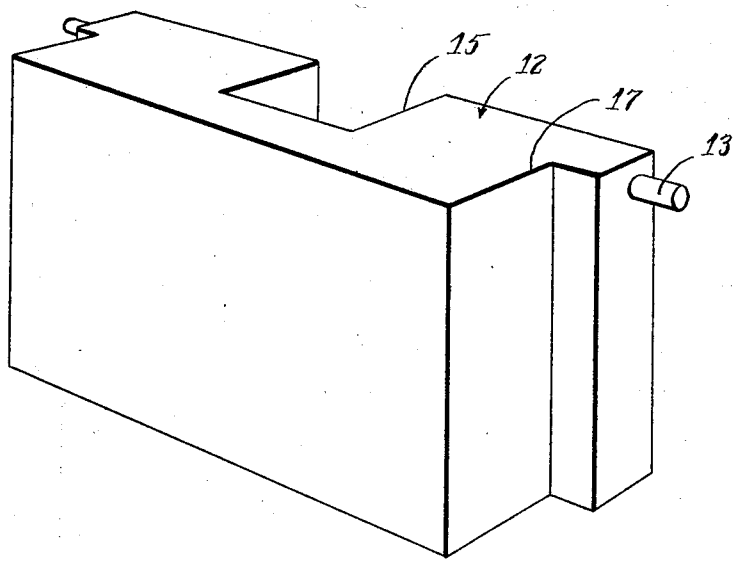


Fig. 2



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UNITED STATES PATENT OFFICE.

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MOLD FOR CONCRETE BUILDING BLOCKS.

Application filed August 20, 1925. Serial No. 51,311.

This invention relates to improvement in molds for concrete building blocks. My object is to make a mold or form in which a single unit concrete block can be easily made that will lay a dry hollow wall.

Referring to the drawing Fig. 1 is a horizontal section through a mold made in accordance with my invention illustrating the form of building block produced therein, and Fig. 2 is a perspective view of the core removed from the mold.

The open top, box-shaped mold 5 has the sides 6 and 7 and the ends 8 and 9 hinged to the bottom thereof as indicated at 10 to permit opening the mold to remove a block when made. The sides and ends are arranged to be held together by hooks or other suitable means at 11 when the mold is set up for use. A core 12 is placed in the mold and suitably held in position by means of pins 13 in a manner well known in the art, there being preferably at least one pin at each end of the core and also one on the bottom thereof to fit openings provided therefor in the mold in the usual manner. Suitable means may also be provided for removing the core from the mold after a block has been formed.

The core, it will be noticed, is of irregular form. It is substantially as high as the mold with the top and bottom surfaces substantially parallel and the side and end surfaces as well, there being a slight taper from top to bottom to make it easy to withdraw from the mold. The core when placed in the mold is spaced equidistant from the sides in the manner shown, thus leaving an open space on each side of the core to fill in the concrete indicated at 14. The core has a cavity or indentation 15 extending vertically across one face thereof which is cut deeper than half the width of the core. This cavity results in the forming of a lug 16 on the tile produced on that side of the core. The other face of the core has cavities or indentations 17 at opposite ends of the core to result in the forming of lugs 18 in the tile produced on this side of the core. Each of the cavities 17 is approximately half as wide as the cavity 16 so that the lugs 18 are half as wide as the lug 16. The purpose in this is fully set forth in my copending application, Serial No. 32,312 filed May 23, 1925, which application covers the concrete building block per se.

The core is a little shorter than the mold. It is held in position so that each end is spaced a short distance from the end of the mold as indicated at 19. This space is so narrow concrete does not fill it. This narrow space allows iron tie rods 20 to pass through it and around the ends of the core from the space on one side into the space on the other side. Thin bar iron or wire ties are used to bind the parts of the block together. Two or more single tie rods or a tie having two or more transverse members should be used on each end of a block. A block should be united near the top and near the bottom to hold it rigid for handling.

One detail of the core is changed to make an end block for a course in a wall. One end of the core is removed as far as the offset 17 leaving space for concrete across the end of the block between the core and the mold. The core is spaced and the iron tie used at the other end the same as in making common blocks.

The block made in this mold will have two rectangular tiles spaced apart and held parallel with each other. Each tile will have one or more concrete lugs on its inside face that extends toward the opposite tile more than half the distance between the two tiles. There will be a continuous air space vertically through the block. The two parts or tiles will be united into a single unit by the iron rods across the ends of the block. When a course of blocks is laid in the wall the block in the course next above will be shifted a half block to lap or break joints. The lugs on the upper course will overlap the lugs on the course below it and tie the wall together. These blocks are easy to keep in a straight line in a wall because they are units, and the wall will be ready to plaster.

I claim:

1. In a box shaped mold for concrete building blocks open at the top, a removable core that is narrower and shorter than the mold, having its sides substantially parallel with each other and with the sides of the mold and spaced equally from the sides of the mold, one side of said core having a vertical cavity or indentation at its middle more than half the thickness of the core extending from bottom to top and wide enough to form a concrete lug on the tile on that side of the concrete block.

2. In a mold for concrete building blocks, a removable core which divides the mold cavity longitudinally into two separate cavities to form two tiles for a building block, said

core being spaced slightly from the ends of the cavity so that tie rods may be passed around each end of the core to be imbedded at their ends in the two tiles whereby to connect the same and form a unitary block.

3. In a box-shaped mold for concrete building blocks open at the top, a removable core narrower and shorter than the mold having its sides substantially parallel with each other and with the sides of the mold and spaced equally from the sides of the mold, one side of said core having a vertical cavity or indentation at the middle thereof more than half the thickness of the core and extending from top to bottom thereof to form a concrete lug on the tile on that side of the core, the other side of said core having vertical cavities or indentations at the ends of the core more than half the thickness of the core but approximately half as wide as the first mentioned cavity or indentation and extending from top to bottom of the core to form concrete lugs on the tile on that side of the core, the spaces between the ends of the core and the adjacent walls of the mold permitting the passing of tie rods across each end of the core to be embedded in the two tiles to connect the same and form a unitary block.

In testimony whereof I have signed my name to this specification.

EDWARD S. NICHOLAS.