Jan. 26, 1926. 1,570,998

E. V. EGGER

MOLD FOR BUILDING BLOCKS AND THE LIKE

Filed Oct. 12, 1925

Fig. 1.

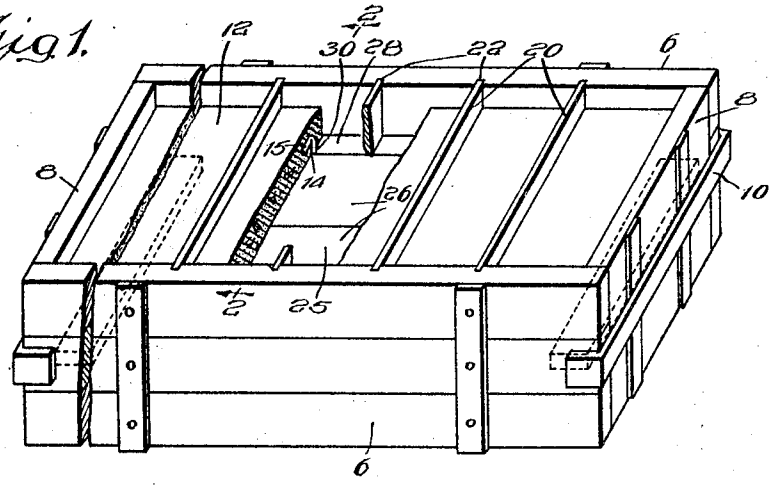


Fig. 2.

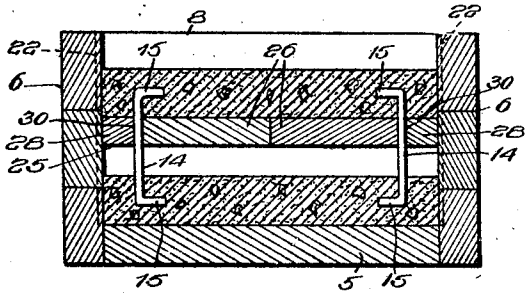


Fig. 3.

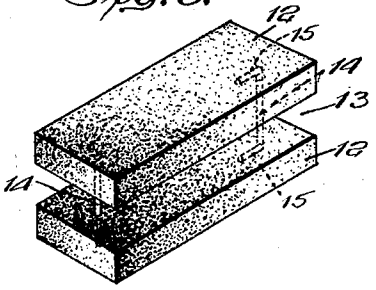


Fig. 4.

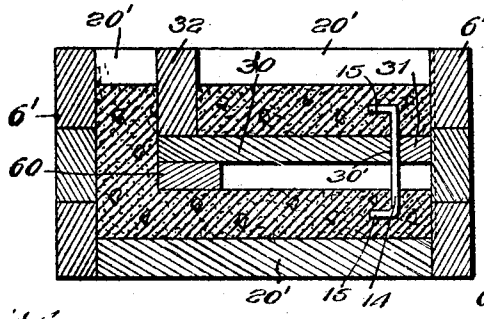
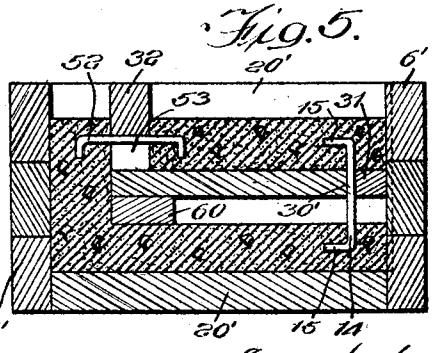


Fig. 5.



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UNITED STATES PATENT OFFICE.

EVERETT V. EGGER, OF ELGIN, ILLINOIS.

MOLD FOR BUILDING BLOCKS AND THE LIKE.

Application filed October 12, 1925. Serial No. 61,881.

To all whom it may concern:

Be it known that I, EVERETT V. EGGER, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented a certain new and useful Improvement in Mold for Building Blocks and the like, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to molds for building blocks and the like, more particularly to molds for blocks comprising a plurality of parts with connecting and re-enforcing elements between them, and its objects are the provision of a generally improved and simplified mold in which the blocks may be expeditiously and economically formed and a mold into which the introduction of the concrete or other material is facilitated as is the removal of the molded block therefrom.

To acquaint those skilled in the art with the construction and manner of practicing the invention, I shall now describe certain embodiments of the same in connection with the accompanying drawings, in which—

Fig. 1 is an isometric view of an embodiment of the invention showing the blocks therein partially broken away to reveal the core and the disposition of the connecting and re-enforcing elements;

Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1;

Fig. 3 is a perspective view of one of the blocks formed in the mold of Figs. 1 and 2;

Fig. 4 is a transverse section through an embodiment of the invention for forming angular blocks; and

Fig. 5 is a modification of the embodiment shown in Fig. 4.

The mold shown in Figs. 1 and 2 has a bottom or base 5 provided with removable longitudinally extending side walls 6 and with transverse end walls 8. The end walls 8 may be mounted edgewise upon the bottom 5 and between the ends of the side walls 6 with the bottom 5 fitting between the lower edges of the side walls 6. Clamping members designated more or less diagrammatically at 10 may be employed for holding the walls in position to form a case for shaping the concrete blocks therein.

The resulting block is shown in Fig. 3 and consists of two parts or generally parallel sides or sections 12—12, separated by an air space 13 and held together by a plurality of connecting and reenforcing elements shown in the form of iron tie or bonding rods 14. These rods 14 may be made up of quarter inch square twisted stock with their opposite ends turned at 15 and anchored in the two parts 12—12 of the block.

As illustrative of the relative dimensions of a commercially practical block, its length, which is the transverse dimension or width of the mold, may be about 15 or 16 inches, its width about 7⅝ inches, the air gap about 3 inches and the thicknesses of the two parts about 2½ inches apiece.

The mold which is broken away within its length and therefore incomplete as to length, in Fig. 1, may be for any desired number of these blocks, for example eight, in which the internal dimension of its length would be about eight times the width of the individual block, plus the thicknesses of the separating plates or partitions 20. The plates or partitions 20, which may be of steel, separate the individual blocks and keep them separate in the molding process. These plates are set in notches 22 formed in the side walls 6, as shown in Figs. 1 and 2.

The air space 13 is formed by a core 25 and the notches 22 extend above and below the core, there being plates 20 below the core for separating the bottom parts of the blocks and separate plates 20 above the core for separating the top parts of the blocks, so that there are two plates 20 in each pair of notches 22 and these two plates are separated by the core 25.

The core 25 comprises two planks or core members 26—26 which extend endwise through the mold between the connecting and re-enforcing rods 14. Extending along the outer edge of each of the planks 26 are two additional planks 28—28 which complete the horizontal support for the upper layer or part of the block. The planks 28—28 are notched at 30 along their inner edges to accommodate the connecting and re-enforcing rods 14. There may be two of such reenforcing and connecting rods 14 at each end of the block or any other suitable or desired number may of course be employed.

The thickness of the core boards or members 26—26 and 28—28 is preferably less than the distance between the upper and lower parts of the block and laid upon the upper surface of the lower part or layer of

the blocks are a pair of transverse wedge boards or planks 50. When the case is closed, as shown, these may fit between the sides thereof, or where the case is of open formation, they may project therefrom. One of the boards or planks 50 may be disposed, for example, transversely on each end of the mold. The combined thicknesses of these planks 50 and the core boards or planks 26 and 28 is equal to the distance between the two parts of the block and the core boards 26 and 28 are laid longitudinally across the members 50, which, when the side walls of the mold are laid off, may be conveniently driven out or removed, and when removed free the core boards 26 and 28 for convenient removal in the manner described.

In use, after the case comprising the bottom 5, sides 6 and ends 8, has been set up and locked or clamped in position, the lower separating plates 20 are first put into position in the lower part of the mold and the concrete or other material is poured to the desired depth at the bottom of the mold. The members 50 are then laid transversely across the upper surface of the bottom layer or part, whereupon the core planks 28 are laid in place longitudinally thereacross, as shown in Fig. 2, and the rods 14 positioned in the notches 30 with their lower ends suitably anchored in the bottom parts of the blocks. The central planks 26 are then put in between the side planks 28 and longitudinally across the members 50 and then with the upper separating plates 20 in place, the concrete or other material is poured into the top of the mold to form the top parts of the blocks, the upper ends of the rods 14 projecting into the upper parts of the blocks and being firmly anchored therein when the concrete sets. When the blocks have sufficiently set or hardened, the mold may be taken apart by unclamping the end walls 8 and side walls 6. The side walls may then be laid off sidewise. With the side walls laid off, the members 50 which are in the form of relatively narrow strips having little surface engagement with the concrete are then removed, whereupon the side pieces 28 are pulled out sidewise and the planks or central core pieces 26 are pulled out endwise. The disposition of the notches 30 for accommodating the rods 14 entirely in the side pieces 28 avoids any interlocking engagement of the pieces 26 with the rods 14 and thereby permits the endwise withdrawal of said pieces 26. The interlocking engagement of the pieces 28 with the rods 14 is in the direction of withdrawal of said side pieces 28 so as to not interfere therewith, and when the side pieces 6 are laid off, the sidewise withdrawal of the pieces 28 is a simple matter.

The embodiment shown in Fig. 4 is for forming an angular block such as commonly employed in laying a corner. In this case the mold case may be substantially as before, but the core comprises three core pieces 30, 31 and 32. The bottom plates 20′ are preferably angular to lay along the bottom between the bottom of the case and the pieces 30 and 31 and up along one side between the side wall of the case and the core piece 32 and end of the core piece 30. The core pieces 30 and 31, instead of extending entirely through the mold, terminate short of one end thereof to give the angular formation to the block, and at this end the core piece 32 is laid or set edgewise upon the core piece 30.

The upper plates 20′ may be set in the notches in one of the side walls 6′ and in the adjacent side of the core piece 32. The notches 30′ for the rods 14 are again entirely in the side piece 31, and when the side pieces 6 are laid off, the side piece 31 is removed sidewise while the core pieces 30 and 32 are adapted to be pulled out endwise.

In the modification of Fig. 5 connecting rods 52 are shown between the vertical leg and the upper layer or part of the block and the core piece 32 is notched along its lower edge at 53 to fit over the rods 52. The thickness of any concrete which might tend to run through the slots 53 is slight, so that any resulting web formation resulting thereby may be conveniently chipped off or removed.

It is to be understood that the case may be of open formation or of metal or otherwise, as desired. Screw clamps are contemplate for use where those designated at 10—10 are employed. I also contemplate forming straight and angular blocks in combination in the same mold case, as by making the molding provisions of Fig. 4 at the ends of the case and the molding provisions of Fig. 2 through the intermediate part or between the ends. Where angular blocks are formed at the ends, the cross pieces 50 may be set back sufficiently so as to not interfere with the pouring of the vertical legs of the blocks.

In the angular mold a longitudinal spacing strip 60 may be employed along the base of the vertical leg of the block to assist in supporting the core boards and to keep the cement from running into the space between them and the lower part of the block upon pouring the vertical leg.

I claim:—

1. In combination, a mold, a sectional core dividing said mold, said core comprising an endwise removable part having a continuous edge, and an edgewise removable part extending along the side of said first part and having a notched rod receiving edge adjacent the continuous edge of said first part.

2. In combination, a mold having bottom, side and end walls, bottom partitions set in

notches in the side walls and dividing the mold into separate molding compartments, a sectional core overlying said bottom partitions and comprising an endwise removable part and a notched rod receiving part extending along said first part and removable edgewise, and separating partitions overlying said first partitions and dividing the upper part of the mold into separate molding compartments.

3. A mold core for blocks of the class described comprising a core part adapted for endwise removal upon completion of the block, and a core part adapted for edgewise removal, said last core part having notches for receiving connecting and re-enforcing elements for the blocks, said notches being entirely in said last core part so that said first core part can be endwise removed.

4. In combination, a mold having bottom, side and end walls, bottom partitions set in notches in the side walls and dividing the mold into separate molding compartments, a sectional core overlying said bottom partitions and comprising a pair of intermediate core parts adapted for endwise removal upon completion of the blocks, and a pair of core parts having notched edges to receive connecting and re-enforcing elements for the blocks, one of said last parts extending along the outer edge of each of said first parts with its notched edge in edgewise abutment therewith, said first core parts being removable endwise and said last parts edgewise, and separating partitions overlying said first partitions and dividing the upper part of the mold into separate molding compartments.

5. In combination, a mold, a sectional core part comprising an endwise removable part and a notched connecting and re-enforcing element receiving parts removable edgewise, said first core parts extending from one side of the mold and terminating at its opposite end short of the opposite side of the mold, and a second mold part disposed edgewise upon the free end of said first core part and forming an angular molding space between it and the adjacent wall of the mold.

6. In a mold for a two part block, the combination of bottom, side and end walls, spacers laid upon the bottom block part, and a core laid upon said spacers for supporting the upper core part.

7. In a mold for a two part block, the combination of bottom, side and end walls, spacers laid upon the bottom block part, and a core laid upon said spacers for supporting the upper core part, said core comprising an endwise removable part and a notched edgewise removable part for receiving connecting rods between the parts of the block.

8. In combination, a mold, a sectional core dividing said mold, said core comprising a core part removable endwise in either direction and a notched rod receiving part extending along the side of said first part and removable edgewise.

In witness whereof, I hereunto subscribe my name this 1st day of October, 1925.

EVERETT V. EGGER.