

April 8, 1924.

T. J. CAHILL

1,489,979

METHOD AND APPARATUS FOR MAKING CONCRETE BLOCKS

Filed March 19, 1923

Fig. 1.

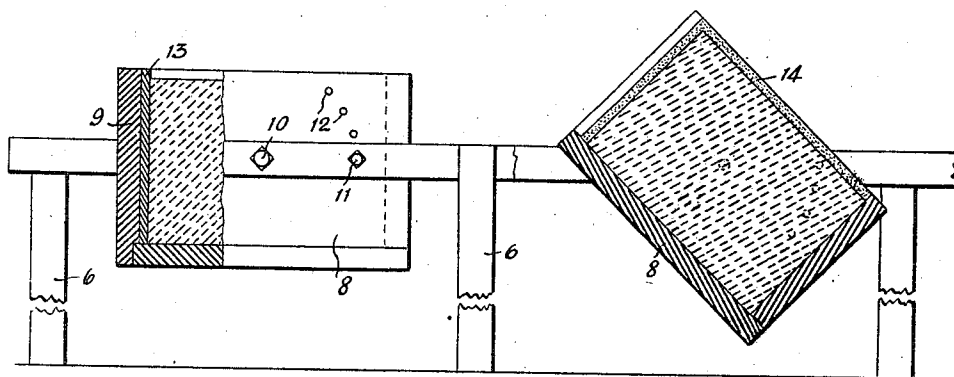


Fig. 2.

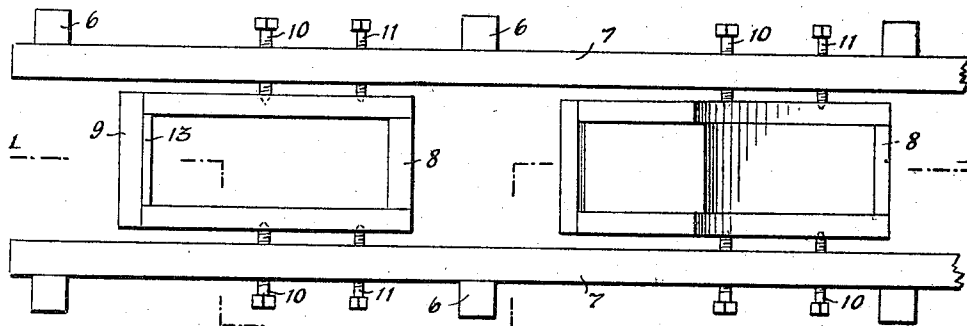


Fig. 3.

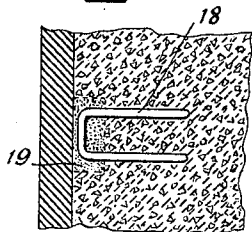


Fig. 4.

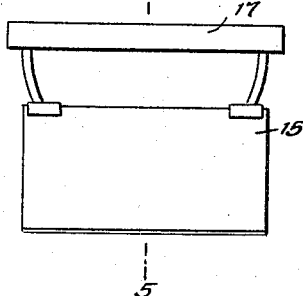
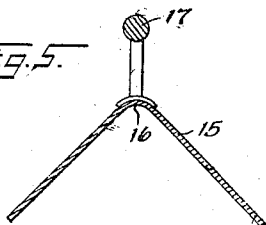


Fig. 5.



WITNESSES

H. T. Walker  
E. R. Mueller

INVENTOR

T. J. CAHILL

BY

Mum & Co  
ATTORNEYS

## UNITED STATES PATENT OFFICE.

THOMAS J. CAHILL, OF PHILADELPHIA, PENNSYLVANIA.

METHOD AND APPARATUS FOR MAKING CONCRETE BLOCKS.

Application filed March 19, 1923. Serial No. 626,167.

*To all whom it may concern:*

Be it known that I, THOMAS J. CAHILL, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Method and Apparatus for Making Concrete Blocks, of which the following is a full, clear, and exact description.

10 This invention relates to improvements in plastic blocks and has particular reference to an apparatus and the method of forming the same.

15 An object of the invention is to provide an improved apparatus by means of which the formation or molding of the plastic block into its completed state is facilitated.

20 Another object is to form the block by placing in a mold a quantity of material less than the capacity of the mold and then changing the character of the mold in such manner as to permit of a facing for the block being applied thereto on more than one of its surfaces.

25 The above and other objects will appear more clearly from the following detail description, when taken in connection with the accompanying drawing, which illustrates a preferred embodiment of the inventive idea.

30 In the drawing—

Figure 1 is a fragmentary longitudinal section of the apparatus employed in connection with the invention, taken on the line 1—1 of Figure 2;

35 Figure 2 is a fragmentary top plan view of the apparatus;

40 Figure 3 is a fragmentary sectional view through one of the molds showing the manner in which a supporting hook for a block is embedded therein;

Figure 4 is a side elevation of a trowel employed for finishing the corners of a block; and

45 Figure 5 is a section on the line 5—5 of Figure 4.

50 In the formation of blocks in accordance with the present invention, it is preferable to employ what is generally known as poured concrete which is originally in a liquid state, this kind of concrete being found more desirable in that it is non-porous and therefore absorbs very little, if any, moisture.

55 The apparatus for forming the plastic or concrete blocks preferably comprises a frame including a plurality of standards 6 to which are secured the oppositely disposed side

members 7. These members 7 support therebetween a plurality of molds 8 of any desired configuration depending upon the shape of the block to be formed and each mold 8 is provided with a removable end section 9 which may be removably secured to the body of the mold in any preferred manner. Each mold 8 is pivotally supported between the side members 7 by any suitable means, such as the screws 10 which are carried by the side members 7 and the inner ends of which engage in suitable recesses formed in the sides of the mold 8 at points intermediate the ends thereof. In the formation of a block it is desirable at certain times to tilt the mold at an angle to the horizontal, as shown at the right of Figure 1, and retain the mold in such position. The means shown for carrying out this purpose preferably comprises a pair of oppositely disposed screws 11 mounted in the side members 7 in such manner that the inner ends of said screws may be engaged with any one of a plurality of recesses 12 formed in the sides of the mold to maintain the latter in any desired adjusted position.

When forming a block of which two sides are to be faced with any desired finishing material, such as tarras, a filler member or slab 13 of a depth and width equal to that of the interior of the mold is first mounted in the end of the mold adjacent the removable section 9, after which the concrete is poured into the mold until the level thereof is below the top of the mold a distance equal to the thickness of the facing that is to be applied to the block, which thickness is substantially the same as that of the filler member 13. The concrete is poured into a mold when the same is in a horizontal position, as shown at the left of Figure 1, and after being poured the concrete is permitted to set for a desirable length of time before applying the facing thereto.

When proceeding with the last named operation the mold is tilted at any desired angle to the horizontal and secured in such position by engagement of the screws 11 with the oppositely disposed apertures 12, following which the end section 9 and the filler member 13 are removed. When in the tilted position the block will retain its original formation and will be so positioned that the operator may readily apply the facing material 14 to the top and upper end of

the block. This facing 14 may be applied to a depth equal to the space left at the top of the mold when the concrete is poured thereinto and to that of the thickness of the filler member 13 at the end of the block. In order to provide a smooth finish for the facing the outer surface thereof may be troweled and the corner may be pressed into any desired shape by means of a suitable tool, shown in Figures 4 and 5. Also the edges of the block may be given any desired configuration. The tool shown in said figures consists of a body portion 15 of angular formation, the meeting edges of the sides of the body being, in the present instance, rounded as indicated at 16, so that the corner of the facing may be made to assume a similar configuration. The tool is provided with any suitable handle 17 to facilitate its use. After the facing has been applied the block may be allowed to set a sufficient length of time, after which it may be readily removed from the mold.

If desired, suitable means may be embedded in the block for the purpose of facilitating the handling thereof after the same is formed. This means is shown as comprising a U-shaped member 18, the ends of which are set in the concrete directly after the same has been poured into the mold and the bight portion of the member 18 is surrounded by any suitable plastic material 19 having a degree of softness which will permit of its ready removal after the block is formed so that a suitable instrument may be engaged with the bight portion of the member 18 to facilitate the handling of the block.

What is claimed is:

1. In a mold for forming plastic blocks,

a frame including side members, a mold pivotally supported by said side members whereby the same may be adjusted to various angles with respect to a horizontal plane, and means for retaining said mold in its various adjusted positions.

2. In a mold for forming plastic blocks, a frame including side members, a mold pivotally supported by said side members whereby the same may be adjusted to various angles with respect to a horizontal plane, said mold having a plurality of recesses in one side thereof, and means carried by one of said side members and engageable in said recesses to retain said mold in its various adjusted positions.

3. In a mold for forming plastic blocks, a frame including side members, a mold pivotally supported by said side members whereby the same may be adjusted to various angles with respect to a horizontal plane, means for retaining said mold in its various adjusted positions, a removable end section for said mold, and a filler engageable with said end section, said filler and end section being removed from the mold when the same is adjusted at an angle to the horizontal to provide a space for the application of a facing to the end of a block adjacent said filler and end section.

4. The method which consists in placing a filler in one end of a mold, partially filling said mold with a plastic material, tilting said mold at an angle to the horizontal, removing said filler and the end of the mold adjacent thereto, and facing certain surfaces of the material in the mold with a different material.

THOMAS J. CAHILL.