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1,472,516

R. B. DULA

METHOD OF MAKING BUILDING BLOCKS

Original Filed June 12, 1919

Fig. 1.

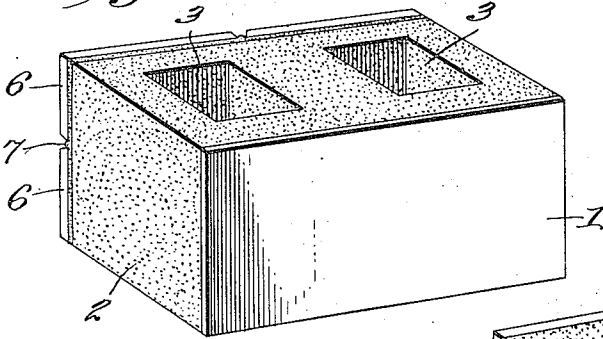


Fig. 2.

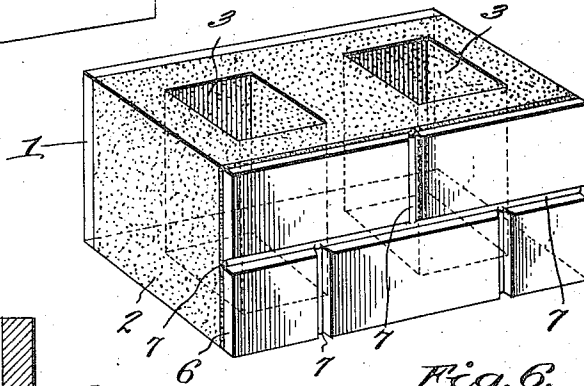


Fig. 3.

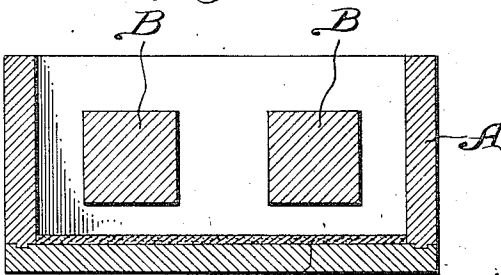


Fig. 4.

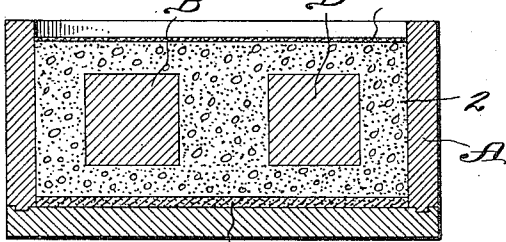


Fig. 6.

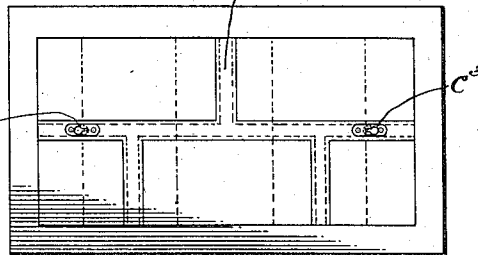


Fig. 5.

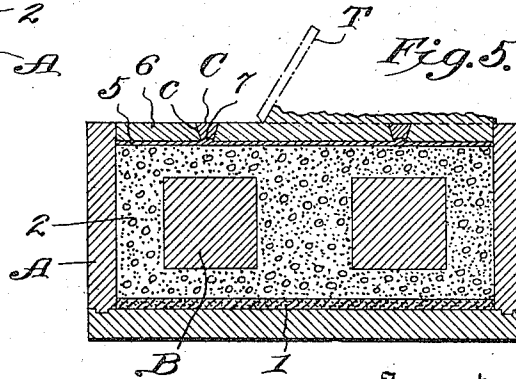


Fig. 8.

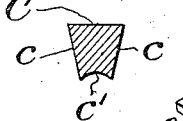
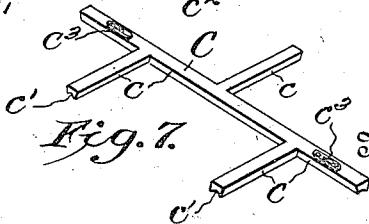
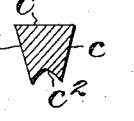


Fig. 9.



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UNITED STATES PATENT OFFICE.

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METHOD OF MAKING BUILDING BLOCKS.

Original application filed June 12, 1919, Serial No. 303,710. Divided and this application filed November 17, 1921. Serial No. 515,777.

To all whom it may concern:

Be it known that I, ROBERT B. DULA, a citizen of the United States, and resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Methods of Making Building Blocks, of which the following is a specification.

This invention relates to building blocks, particularly those made to simulate bricks and artificial or imitation stone blocks, the present application being a division of applicant's copending case Serial No. 303,710, filed June 12, 1919, patented March 28, 1922, No. 1,411,005.

One of the objects of the present invention is to provide a building block wherein the face is subdivided by lines or courses of exposed cement or mortar, thus simulating the appearance of a plurality of bricks or stones bonded by mortar or cement. My blocks may be readily and economically molded and may be of any predetermined or selected size. When a multiplicity of these blocks are employed, as in the construction of a wall, the exposed face of the finished wall will have the appearance of being composed of a large number of small bricks or stones, with the mortar lines or joints visible in the usual manner, although, as a matter of fact, the wall will be made up of a multiplicity of relatively large molded blocks.

Furthermore, in the practice of my invention, the mortar lines or joints and the brick or stone-like sections marked off thereby may be arranged to imitate any design or form of bonding employed in brick laying or stone masonry work.

It is also my purpose to provide a building block having the body thereof composed of a hard and set cementitious material and having the face section thereof subdivided by grooves through which parts of a mortar-like layer on the body are exposed in imitation of ordinary mortar lines or joints, the back of the block being preferably provided with a smooth unbroken and uniform surface, preferably in the nature of an enameled coating or face to provide an interior finish to take the place of the usual plastering.

The present application relates to the improved method whereby the blocks, either hollow or solid, may be rapidly, accurately and economically molded and finished, my

method contemplating the provision of a patterned masonry surface layer with a contrasting masonry body or layer therebeneath, the masonry structure being obtained in a rapid and efficient manner by means of my method.

With the above recited objects, and others of a similar nature in view, my invention consists in the improved building block and in the method of making the same, set forth in and falling within the scope of the appended claims.

In the accompanying drawing:

Figure 1 is a perspective view of a building block embodying my invention, with the back face thereof exposed.

Figure 2 is a similar view but with the front face of the block exposed.

Figure 3 is a cross sectional view taken through a knock-down mold and showing therein a layer of material such as is used for making the back face of the block.

Figure 4 is a similar view but showing the mold as also containing the material for the body of the block and an imposed layer of mortar or cement.

Figure 5 is a cross sectional view through the mold and showing the manner of forming the front face of the block.

Figure 6 is a top plan view of the mold filled with the material of the block and with the grid for forming the mortar lines in position.

Figure 7 is a perspective view of the grid.

Figure 8 is a cross-sectional view through one of the arms of the grid at Figure 7.

Figure 9 is a cross sectional view through a modified form of grid arm.

In the drawings I have shown, and will now describe my invention in connection with a hollow building block, although I wish it to be understood that it is equally applicable to the construction of solid blocks.

Referring to the accompanying drawings in detail the letter A indicates any ordinary and well known form of knock-down mold for making the blocks and B designates the core pieces of the mold. In the manufacture of the block shown in Figures 1 and 2 the bottom of the mold is first covered with a layer 1 of a suitable plaster, such for example as an enamel-like plaster which will constitute the smooth unbroken back face of the block. The core pieces being in position the mold is almost filled with a body of

cementitious or plastic material of a character suitable for the forming of the body of the block. This material may for example be composed of concrete, or of a composition made up of crushed cinders, shale, broken stones and cement, or indeed the body may be of any cement-like substance desirable. Such body is indicated by the numeral 2 and of course in the molding process the flues 3 will be formed in the body by the core pieces B. As will be seen by reference to Figure 4, I impose upon the body 2 a layer 5 of high grade mortar or cement, which may be of the white or grayish color, or may be otherwise colored as desired, one of my purposes being to have this mortar of a color which will stand out in sharp contrast to the face of the block so that the mortar lines or joints will be clearly defined as in the case of ordinary brick work. Upon this mortar layer 5 I place a skeleton or grid C which is preferably composed of metal with the arms beveled or tapered as shown at *c* in Figure 8 and with the bottom of each arm concaved as shown at *c'*. The purpose of beveling the arms is to permit the ready removal of the grid after the block has been made, and the purpose of concaving the bottom faces of the arms is to give a rounded appearance to the completed mortar joints so that they will stand out prominently on the finished block. In Figure 9, the bottom face of the grid arm is shown as concaved sharply or to approximately wedge-shape, as at *c''*. With the grid in place the mortar layer 5 is covered with a layer 6 of cementitious material which is intended to form the front or exposed face of the block. This material, as heretofore indicated, should give a color sharply contrasting with the mortar layer 5. For example if the layer 5 be white, gray or black, the layer 6 might be red, yellow or salmon color, in the case of bricks, or a deep brown or dark gray to imitate stone. When this layer has been positioned as shown in Figure 5, any suitable tool T may be employed to scrape or level this facing layer 6 flush with the top face of the grid, the latter acting as a guide for the truing or leveling of the face of the block. Of course the arms of the grid which are disposed according to any desired pattern of mortar line or joint, will prevent the material of the face layer 6 from covering those parts of the mortar layer 5 which lie beneath the arm, and consequently when the grid is removed upon the completion of the molding operation, as by inserting a hook or other tool in the slots *c''* of the grid, the mortar lines or joints, indicated at 7, will appear exposed at the face of the block.

When the block has thus been molded, and has hardened and set the mold may be knocked down and the block removed in the usual manner.

From the above description taken in connection with the accompanying drawings the construction and method of making my improved block will be readily understood. It will be noted that each block will have the appearance of being built up of a plurality of bricks or stone united by lines of mortar, and when a multiplicity of these blocks are assembled, as in the construction of a building wall, the entire wall will have the appearance of having been built in the usual manner. Furthermore, the flat, unbroken back faces of the blocks especially when made of an enamel-like cement will present a smooth interior finish for the wall or other structure, thus obviating the necessity of plastering, crating and the like, consequently attaining manifest advantages from the standpoints of cleanliness and economy in construction.

While I have herein shown and described one particular embodiment of my invention, I do not limit myself to all the precise details set forth by way of illustration, as modification and variation may be made without departing from the spirit of the invention, or exceeding the scope of the appended claims.

I claim:

1. The method of making a structure used for building or the like, which consists in first providing a body of masonry material, in placing a pattern member on said masonry body, in imposing a layer of contrasting masonry material over said body, in finishing the surface of said layer, and in then removing the pattern, whereby is provided a patterned masonry layer with parts of a contrasting masonry body exposed.

2. The method of making a building block, which consists in first providing a body of masonry material, in placing a grid member on said masonry body, the grid member defining or outlining courses or joints, in then covering the said body and grid with a layer of a contrasting masonry material, in dressing and finishing the face of the said layer, and in then removing the grid, whereby is provided a jointed masonry layer with the contrasting masonry body exposed at the joints.

3. The method of making a structure used for building or the like which consists in first providing a layer of masonry material, in placing a pattern member on said masonry layer, in imposing a second and contrasting layer of masonry material over the said first layer, in finishing the surface of said second layer, and in then removing the pattern, whereby is provided a patterned masonry top layer with parts of a contrasting bottom layer exposed.

4. The method of making a building block, which consists in first providing a layer of masonry material, in placing a grid

member on said masonry layer, the grid member defining or outlining courses or joints, in then covering the said layer and grid with a second layer of a contrasting masonry material, dressing and finishing the face of the said second layer, and in then removing the grid, whereby is provided a jointed masonry top layer with the contrasting masonry bottom layer exposed at the joints.

5. The method of making a building block, which consists in first providing a layer of masonry material, in placing a grid member on said masonry layer, the grid member defining or outlining courses or joints and the under faces of the arms of the grid being concave, in then covering the said layer and grid with a second layer of contrasting masonry material, in finishing the face of said second layer, and in then removing the grid, whereby is provided a jointed masonry top layer with the contrasting bottom layer exposed at the joints, the upper surface of the exposed portions being rounded.

6. The method of making a structure used for building or the like, which consists in first providing a body of masonry material of cementitious or mortar-like substance, in placing a pattern member on said masonry body, in imposing a layer of a contrasting masonry material of a plastic substance over the said body, in finishing the surface of said layer, the finishing being guided by the pattern member, and in then removing the pattern whereby is provided a patterned masonry layer with parts of a contrasting masonry body exposed.

7. The method of making a building block, which consists in first providing a layer of masonry material of cementitious or mortar-like substance, in placing a grid member on said masonry layer, the grid member defining or outlining courses or joints, in then covering the said layer and grid with a second layer of a contrasting masonry material of a plastic substance, dressing and finishing the face of the said second layer, the finishing being guided by the grid member, and in then removing the grid, whereby is provided a jointed masonry top layer with the contrasting masonry bottom layer exposed at the joints.

8. The herein described method of making a building block which comprises placing a body of plastic material in a mold to form the body of the block, then placing a layer of cementitious or mortar-like material on such body, placing a pattern member on said mortar-like layer, then imposing a second or face layer of plastic material on the first layer, then dressing and finishing the second layer, and then removing the pattern to leave the parts of the mortar-like layer which were covered by such pattern, exposed in contrast to the face layer.

9. The herein described method of making a molded building block which comprises placing a layer of cementitious material in a mold, then placing a body of plastic material in the mold and upon the first mentioned layer, to form the body of the block, then imposing a layer of cementitious or mortar-like material on such plastic body, then placing a pattern on the mortar-like layer, then imposing an outer face layer of plastic material on the mortar-like layer, then dressing and finishing the outer face layer and then removing the pattern to leave the parts of the mortar-like layer which were covered by such pattern exposed in contrast to the outer face layer.

Signed at New York city, in the county of New York and State of New York, this 15th day of November, A. D. 1921.

ROBERT B DULA