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L. C. LARSEN

2,243,316

BUILDING BLOCK

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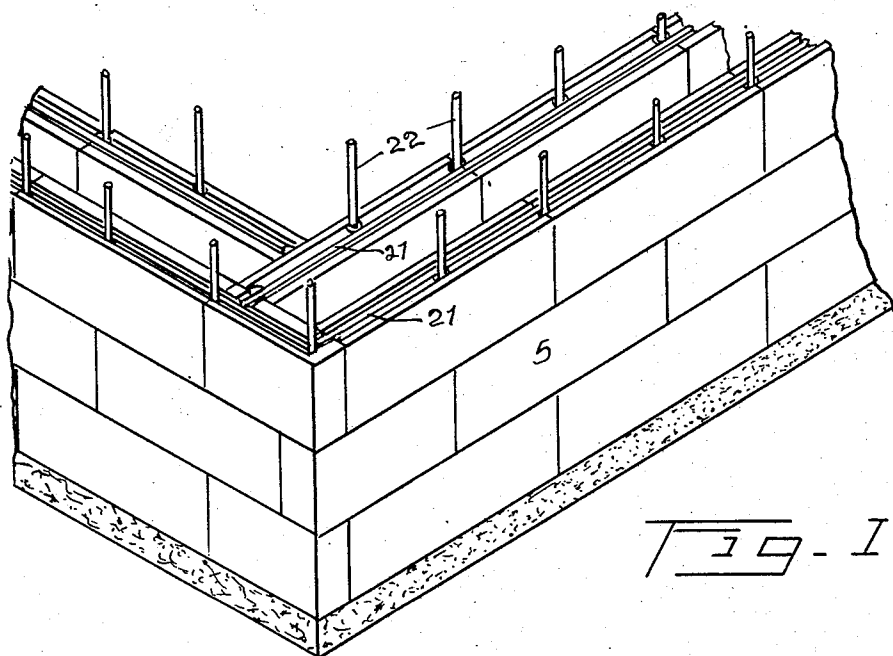


FIG. I.

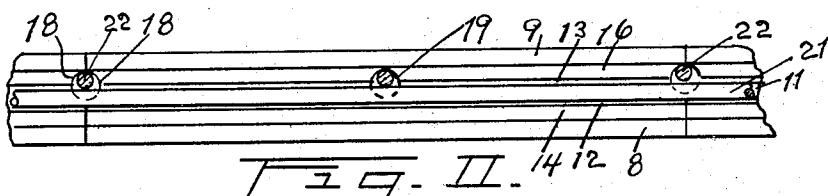


FIG. II.

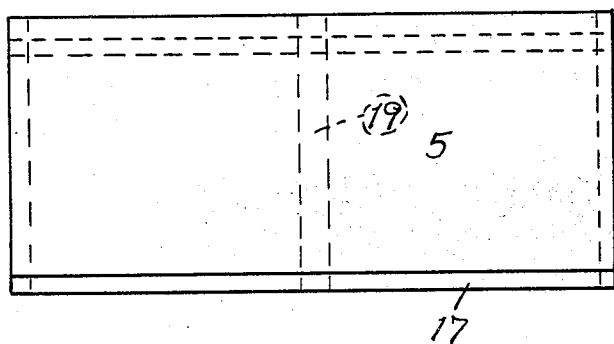


FIG. III.

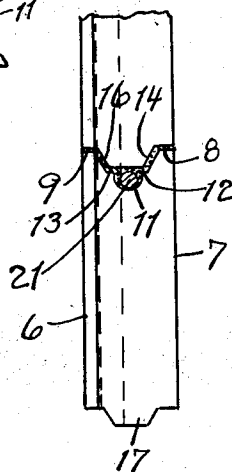


FIG. IV.

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## UNITED STATES PATENT OFFICE

2,243,316

## BUILDING BLOCK

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## 1 Claim. (Cl. 72—38)

This invention relates to improvements in building blocks and has particular reference to molded blocks.

The principal object of this invention is to provide a molded block wherein the adjacent blocks may be locked one to the other in proper alignment and reinforced both horizontally and vertically.

A further object of the invention is to provide means whereby the reinforcing member is embedded in cement in a pocket formed in said blocks and without decreasing the strength of the joint between the blocks.

A further object is to provide a block which may be adopted to the usual building practices, one which is simple to lay, thus resulting in a great saving in labor, and a block wherein relatively thin walls may be spaced one from the other to form a hollow construction.

A further object is to produce a block of this character wherein the same materials may be employed in casting the blocks as are employed in cementing one block to the other, whereby the expansion and contraction of all materials will be the same.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawing forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Fig. 1 is a perspective view of a portion of a wall constructed in accordance with my invention;

Fig. 2 is a top plan view of a wall, showing the reinforcing elements therein;

Fig. 3 is a side elevation of one of my blocks; and

Fig. 4 is an end elevation of one of my blocks, showing a top joint.

In the building of walls it has been common to employ brick hollow tile and the like, which is laid one upon the other, cemented together, and finished in any desired manner. These type of walls will not pass many building ordinances as they are far from perfect against cracking, particularly when subjected to shock, such as earthquake shock.

I have, therefore, devised a block wherein a tongue and groove construction permits the blocks to interlock with successive tiers and, at the same time, permits the insertion of reinforcing rods both vertically and horizontally, which rods eventually become embedded in the cement placed in the joints, thus making a very strong

wall and one which is also pleasing in appearance.

In the accompanying drawing wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates my block having a front face 6 and a back face 7. The top edge connecting the front and rear faces is grooved, as best illustrated in Fig. 4, the groove being of such form as to provide flat surfaces 8 and 9 and a channel 11, on the opposite sides of which are shoulders 12 and 13. The shoulder 12 is connected to the flat surface 8 by an inclined portion 14, while the shoulder 13 is connected to the flat surface 9 by an inclined portion 16.

The bottom of the block is provided with a tongue 17, which is of such shape that it will fit into the groove formed in the top of the block. The ends of the blocks are each provided with semi-circular grooves 18, and a circular opening 19 extends downwardly through the block from top to bottom at substantially the center of the length of the block.

The result of this construction is that when a wall is built, a reinforcing rod 21 is laid in the channel 11, and then the groove is filled with a very thin cement of substantially the consistency of thick cream. It is, of course, understood that vertical reinforcing rods 22 are placed between the ends of the adjacent blocks and also in the center of the blocks. The next tier is now threaded on to the vertical rods so that the tongue 17 of the next above block will be embedded in the cement, thus causing the cement to squeeze out around the tongue and groove connection and also around the steel reinforcing rod. This liquid cement will also pass down the openings at the ends of the blocks and fill the space therebetween, thus eliminating the customary cementing between the ends of the blocks.

It will thus be seen that I have produced a block which will perform all the objects above set forth.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:  
A building block having a body of rectangular form, a pair of the opposite sides of the block being respectively longitudinally grooved and ribbed with the bottom wall of the groove and the outer face of the rib lying in the longitudinal median

line of the block, the block having a reinforcing rod-receiving opening extending therethrough and extending through the grooved and ribbed sides and a semi-circular groove in each of the other sides of the block parallel with said opening, said opening and semi-circular grooves being laterally of and contiguous with the aforesaid

5 groove and rib whereby reinforcing rods positioned in said semi-circular grooves and opening, and laterally engaged with a reinforcing rod in the first-named groove, may be anchored to said last-named reinforcing rod.

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