April 27, 1937. A. F. LA SPINA 2,078,329

BUILDING WALL

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Fig. 1.

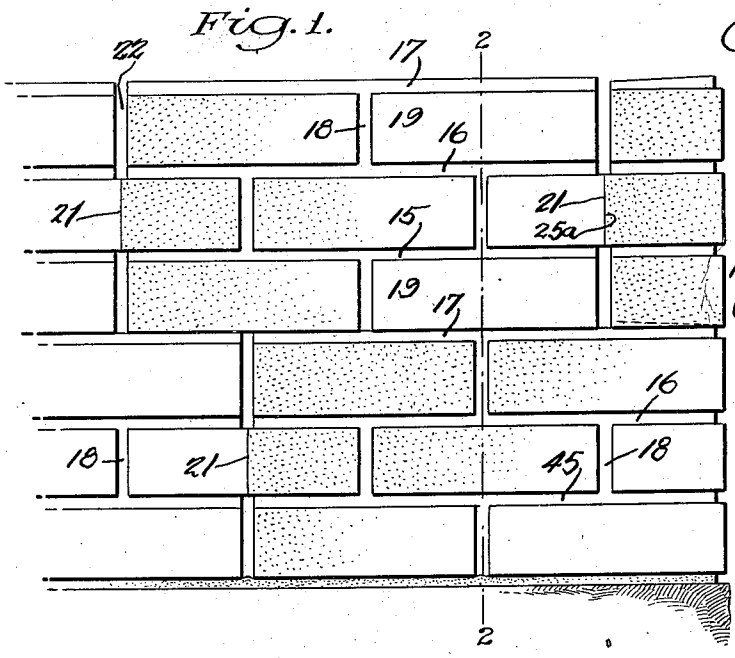


Fig. 2.

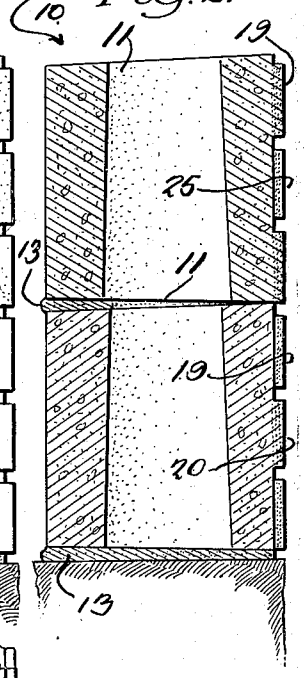


Fig. 3.

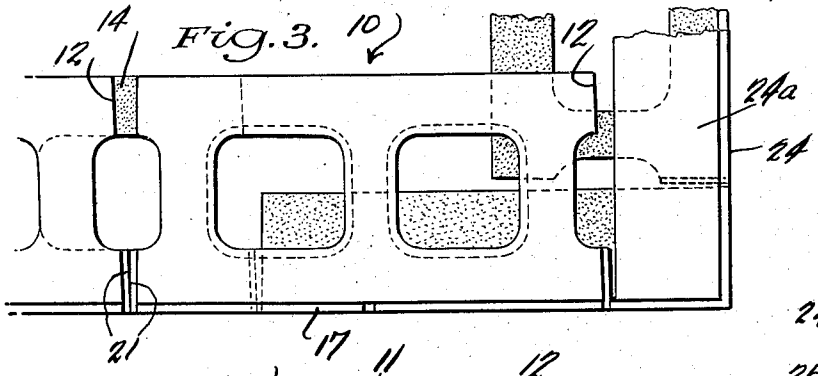


Fig. 5.

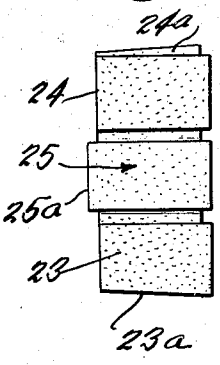
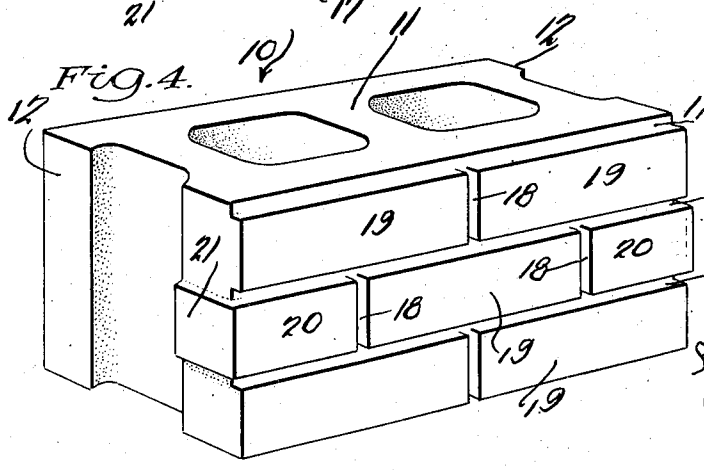


Fig. 4.



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Fig. 6.

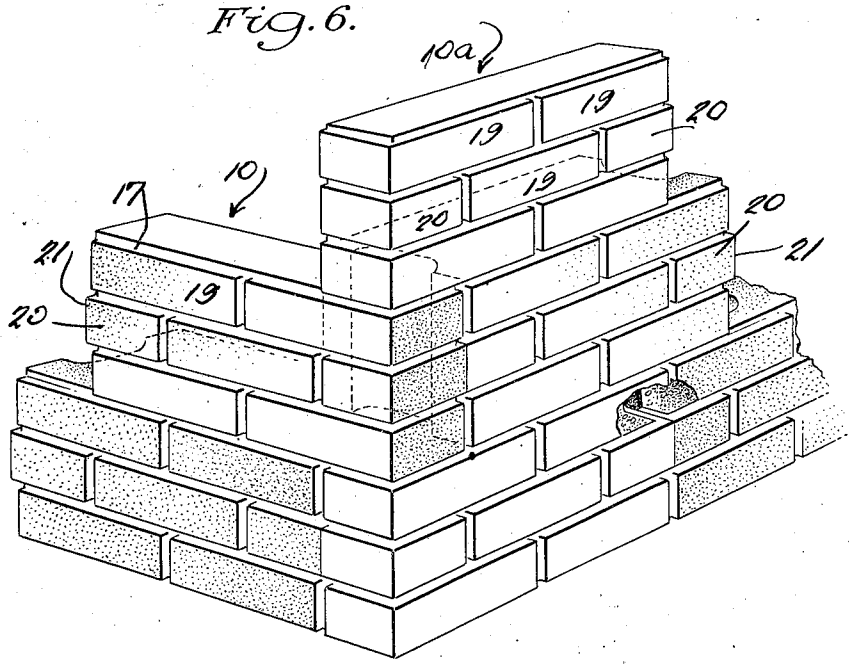


Fig. 7.

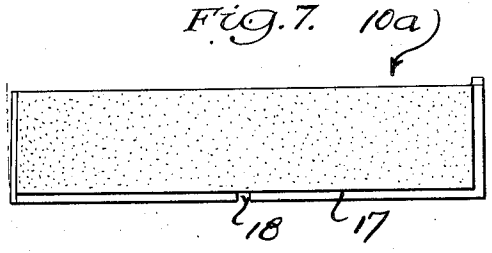
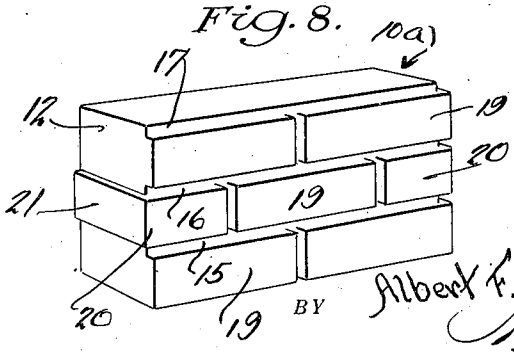


Fig. 8.



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BUILDING WALL

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Application April 12, 1935, Serial No. 16,094

2 Claims. (Cl. 72—37)

This invention relates to improvements in building units or blocks and has for an object the provision of a block of cement, concrete, mortar, clay or such composition with the ends, top and bottom faces tapered or inclined from front to rear, with the object therefore of presenting a facing, when set up, unmarred by mortar joints.

Another object of the invention is the provision of a unit or block of the above character with a facing to represent a pattern of brickwork of any design, so fashioned, by means of the arrangement of grooves and bricks, as to render absolutely invisible the outlines of the individual unit or block as against the completed brick pattern.

A further object of this invention is the provision of a monolith or block of the above character so designed as to permit the baking of a mass of clay or terracotta in the volume of a number of standard sized bricks, the facing of said monolith or block to represent a series of standard set up bricks thereby rendering more economical both the manufacture and the use in construction by virtue of the mass production and the quantity setting up as a labor and time saving means.

A further object of this invention is the provision of a monolith or block of the above character having the means to set up the blocks in a naturally perfect alignment at all times and yet which does not require the use of skilled labor to set them up.

A further object of this invention is the provision of a unit or block of the above character having means to allow its use as a veneer or ashler finish of any design or pattern, of a practical use and so reducing the cost of said veneering to a fraction of its present normal cost.

With the above and other objects in view the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and then claimed.

In the drawings:—

Figure 1 is a front view showing a number of monoliths or blocks constructed and set up in accordance with the invention;

Figure 2 is a vertical cross-sectional view taken on line 2—2 of Figure 1, illustrating the arrangement of the horizontal mortar courses between blocks;

Figure 3 is a fragmentary top plan view illustrating the arrangement of the vertical mortar course between blocks;

Figure 4 is a detail perspective view of an individual monolith or block;

Figure 5 is the side view of a corner header;

Figure 6 is a perspective view of a partly constructed wall showing a series of blocks set up and also the arrangement of blocks forming the corner header;

Figure 7 is a top plan view of a corner block; and

Figure 8 is a perspective view of a corner block.

Referring more in detail to the accompanying drawings and particularly to Figures 1 to 4, there is illustrated a monolith or building block designated in general by the reference character 10 that is of substantially rectangular form and of hollow construction with the top and bottom faces 11 respectively inclining downwardly and upwardly from the front to the rear face of the block while the end faces 12 are similarly inclined from front to rear as will be evident from an inspection of Figures 2 and 3. With the faces of the blocks inclined as described, the blocks are allowed to abut each other at the face of the wall structure as shown in Figure 1 for a depth approximately of one eighth inch to one quarter inch or more from front to rear of the block. The horizontal mortar bedding 13 shown in Figure 2 and the vertical mortar bedding 14 shown in Figure 3 extends from the dry contacting faces of the block to the rear of the block and the mortar bedding increases in thickness toward the rear faces of the blocks proportionately to the inclination of the adjacent block faces.

In building a wall structure from the monoliths or blocks, a quantity of mortar is spread along the top and end faces of the blocks and by means of a trowel or other tool, the top and end faces of the blocks adjacent the vertical front face thereof are scraped clean of the mortar so that the blocks to constitute the second course will directly abut the laid course of blocks adjacent the front faces with the mortar spread between the adjacent faces of the blocks from the scraped portions thereof rearwardly to the rear vertical faces. Surplus mortar will flow in the direction of least resistance and will escape at the rear faces of the blocks during plumbing of the front faces of the blocks. The horizontal and vertical mortar beds 13 and 14 are laid in similar manner and seepage of the mortar through the front sides of the blocks is eliminated, in view of the inclination of the faces of the blocks.

As shown in detail in Figure 4, the front face of the block is provided with three horizontal

grooves 15, 16, and 17 of equal width. The groove 17 is at the extreme upper edge of the block while the groove 15 is spaced from the lower side of the block. It will therefore be understood that when the blocks are assembled as shown in Figures 1 and 2, the horizontal grooves remain of identical widths throughout the face of a wall, these grooves being simulative of mortar courses or fillings and present a uniform appearance. The time ordinarily required in levelling is obviated as direct contact of the front edges of the blocks results in proper alignment. The face of the block is also provided with vertical extending grooves 18 of the same width as the horizontal grooves 15, 16 and 17 to create the impression of individual full bricks 19, and half bricks 20.

Each of the half bricks 20 at the ends of the intermediate row of bricks of a block carries an end projection 21 of a length equal to one half the width of the vertical grooves 18 and the horizontal grooves 15 to 17 so that when the blocks 10 are assembled as shown in Figure 1 with the end projections 21 of adjacent blocks abutting each other, the spaces 22 between the end full bricks 19 of the top and bottom rows is equal to the width of the vertical grooves 18, the symmetry of the grooves being preserved. A corner block is illustrated in Figure 5 and is in the form of three half bricks 23, 24 and 25, grooved similarly to the block shown at 10 with the bottom face of the lower brick 23 inclining upwardly and rearwardly, while an inclined projection 24a is carried by the upper face of the brick section 24 with the forward side of the projection 24a of the same height as the width of the grooves between the bricks. A projection 25a is carried by the rear side of the brick section 25 and is adapted for abutting engagement with an end projection 21 of a block 10 as shown in Figure 1.

The block shown in Figures 7 and 8 and designated by the reference character 10a is of similar construction as the block 10 as shown in Figures 1 to 4, except that it is of solid construction and is especially adapted to veneering and has an ashler finish.

From the above detailed description of the invention, it is believed that the construction and operation thereof will at once be apparent and while there are herein shown and described the preferred embodiments of the invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

I claim:

1. A wall comprising building blocks, each of which has the top and bottom faces thereof tapering slightly from front to rear of the wall, said blocks being laid with the horizontal front edges in direct contact with corresponding edges of the vertically adjacent blocks, said tapering faces diverging towards the rear, forming wedge-shaped mortar spaces and mortar therein extending rearwardly from the front contacting edges of the blocks, the tapering faces of the blocks causing the mortar binder to be moved rearwardly away from the front faces when plumbing the wall with the mortar binder gradually increasing in depth rearwardly of the front face of the wall.

2. A wall comprising building blocks, each of which has the sides, top and bottom faces thereof tapering slightly from front to rear, said blocks being laid with the horizontal and vertical edges in direct contact with corresponding edges of the vertically and horizontally adjacent blocks, said tapering faces diverging towards the rear, forming wedge-shaped mortar spaces and mortar therein extending rearwardly from the front contacting edges of the blocks, the tapering faces of the blocks causing the mortar binder to be moved rearwardly away from the front faces when plumbing the wall with the mortar binder gradually increasing in depth rearwardly of the front face of the wall.

ALBERT F. LA SPINA.