May 4, 1943. D. L. BOEGLEN ET AL 2,318,362

WALL CONSTRUCTION

Filed July 30, 1942

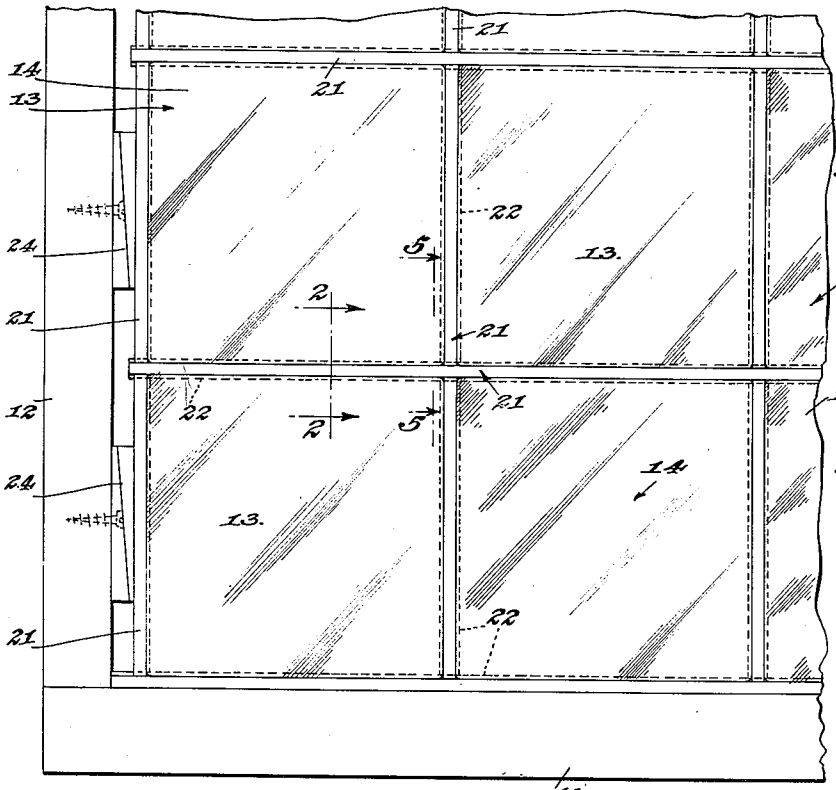


Fig. 1.

Fig. 5.

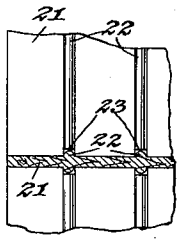


Fig. 2.

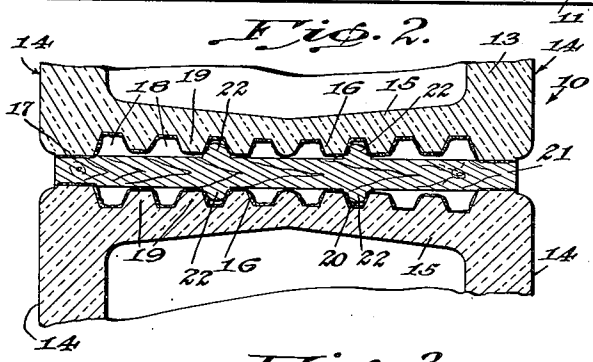


Fig. 4.

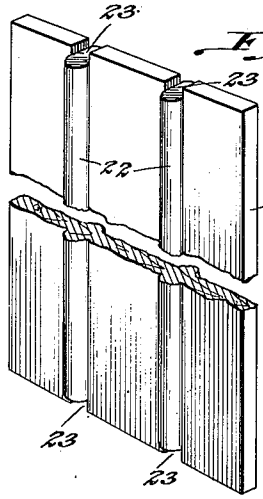
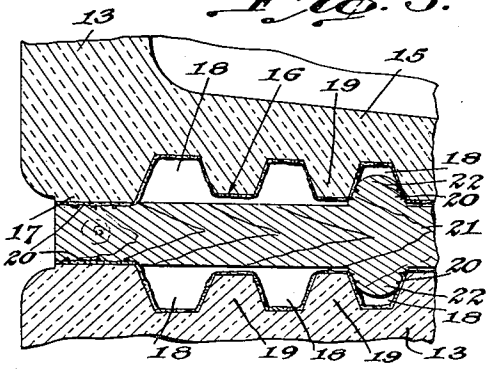


Fig. 3.



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WALL CONSTRUCTION

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Application July 30, 1942, Serial No. 452,840

5 Claims. (Cl. 72—42)

The present invention relates to improvements in wall construction and has for an object, the provision of novel means whereby blocks constituting a wall panel may be firmly held against accidental displacement, yet when it is desired, may be knocked down without rendering the blocks and related elements useless for further construction.

Another object is the provision of an inexpensive and highly efficient substitute for mortar which may well be reused indefinitely and will rigidly unite blocks making up a wall panel or the like. To this end we disperse a gritty material (glass sand or the like) over the conventional mortar bearing surface of hollow glass building blocks and in lieu of the usual mortar, employ separator strips of such character that the gritty material will become embedded therein and securely hold the blocks against relative sliding movement.

It is also an object to so construct the separator strips that they will interlock with each other and with the blocks. To this end, ribs and grooves are provided on the strips and blocks.

Other objects will be in part apparent and in part pointed out hereinafter.

In the drawing:

Fig. 1 is a fragmentary elevational view of a wall panel illustrating the application of our invention,

Fig. 2 is a vertical sectional view taken along the line 2—2 of Fig. 1,

Fig. 3 is a fragmentary detail sectional view illustrating the manner in which the gritty material on the blocks becomes embedded in the separator strips,

Fig. 4 is a detail perspective view of one of the vertical separator strips, and

Fig. 5 is a sectional view taken substantially along the line 5—5 of Fig. 1.

In the illustrated embodiment of our invention, it forms a part of a wall panel 10 including a frame made up of horizontal and vertical members 11 and 12 respectively, these members defining the opening in which a plurality of rectangular hollow glass building blocks 13 are to be assembled.

Each block includes the usual opposed exposed faces 14 which may be plain or provided with suitable face cuttings to effect the transmission of light therethrough and/or for decorative purposes. The continuous rim or wall 15 connecting the faces 14 and providing the customary mortar bearing surface 16 is formed at each margin with an external continuous rib or shoulder 17 and between these ribs or shoulders, with a plurality of continuous alternate grooves and ribs 18 and 19 respectively which are disposed parallel with each other and with the exposed faces of the block. A gritty material 20, glass sand for example, is dispersed over the entire mortar bearing surface and is bonded thereto by a suitable adhesive. These blocks when assembled to form the wall panel 10, are arranged in horizontal and vertical rows and in accordance with our invention, are held in the desired spaced relationship by separator strips 21.

These separator strips may be formed of any material which will permit embedding the aforementioned gritty material therein when pressure is applied to the blocks or simply under the weight of the rows of blocks themselves. We have discovered that soft wood strips are comparatively inexpensive and highly efficient for this purpose in that they permit ready penetration of the gritty material into the surface thereof.

Relatively long horizontal separator strips spanning a considerable number of blocks and short vertical separator strips of single block lengths preferably are employed. In the illustrated form of our invention, the horizontal strips are of approximately the same thickness as the conventional mortar joint and generally of a width corresponding to that of the layer of mortar customarily used. The length of the horizontal strips is such that they will extend slightly beyond the endmost blocks of a horizontal row. A pair of longitudinal ribs 22 is formed substantially medially of each side of each horizontal strip and are so related to each other that they will fit into pairs of said grooves 18 provided in the opposed faces of adjacent blocks.

The short vertical separator strips, in addition to having a pair of ribs 22 corresponding to those formed on the horizontal strips, are each provided with a transverse groove or notch 23 in register with and at the end of each of said ribs. These notches or grooves, when the parts are assembled, receive the ribs on the horizontal strips and thereby prevent any undesired relative movement between the horizontal and vertical strips.

While the weight of the blocks alone is sufficient to press the gritty material into the soft wood horizontal separator strips, we provide mechanical means for effectively interlocking the blocks and vertical strips. This mechanical means consists simply in a plurality of wedges 24 which are individual to the horizontal rows of

blocks and interposed between the vertical frame member 12 and the endmost and adjacent vertical strip 21.

With a construction as described herein, it is obvious that a panel of hollow glass blocks may be built up quite rapidly and with equal facility, torn down and moved to another location without necessitating any extensive replacement of the parts such as blocks and separator strips, all of which may well be reused. As also pointed out, the gritty material upon becoming embedded in the soft wood strips, quite effectively unites the blocks of the panel and positively prevents any lateral slippage of the blocks relative to each other.

Modifications may be resorted to within the spirit and scope of the appended claims.

We claim:

1. Wall construction comprising horizontal and vertical rows of rectangular blocks, each block formed with at least one continuous peripheral groove in its mortar bearing surface, a gritty material dispersed over and bonded to said surface, soft wood separator strips having the gritty material embedded therein under pressure and provided with a rib fitting into said groove.

2. Wall construction comprising horizontal and vertical rows of rectangular blocks, each block formed with at least one continuous peripheral groove in its mortar bearing surface, a gritty material dispersed over and bonded to said surface, horizontal separator strips spanning a plurality of blocks and having opposed longitudinal ribs projecting into aligned grooves of adjacent blocks, vertical separator strips between vertical rows of blocks, each vertical strip being of one block length and having opposed longitudinal ribs fitting into aligned grooves of adjacent blocks, the latter strip also having end grooves to receive the ribs on the horizontal strips, all of said strips having a facing in which the gritty material becomes embedded under pressure.

3. Wall construction comprising horizontal and vertical rows of rectangular blocks, each block formed with at least one continuous peripheral groove in its mortar bearing surface, a gritty material dispersed over and bonded to said surface, horizontal soft wood separator strips spanning a plurality of blocks and having opposed longitudinal ribs projecting into aligned grooves of adjacent blocks, vertical soft wood separator strips between vertical rows of blocks, each vertical strip being of one block length and having opposed longitudinal ribs fitting into aligned grooves of adjacent blocks, the latter strips also having end grooves to receive the ribs on the horizontal strips, all of said strips having at least a portion of the gritty material embedded therein under pressure.

4. Wall construction comprising horizontal and vertical rows of rectangular hollow glass blocks, each block having a gritty material dispersed over and bonded to its mortar bearing surface and soft wood separator strips placed vertically and horizontally between the blocks and having a portion of the gritty material embedded therein under pressure whereby to secure the blocks against relative sliding movement.

5. Wall construction comprising horizontal and vertical rows of rectangular hollow glass blocks, each block having a gritty material dispersed over and bonded to its mortar bearing surface and soft wood separator strips placed vertically and horizontally between the blocks and having a portion of the gritty material embedded therein under pressure whereby to secure the blocks against relative sliding movement, said strips having interlocking ribs and grooves securing them against accidental relative movement.

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