Oct. 2, 1923. 1,469,678

J. NEWELL

CONCRETE WALL BLOCK

Filed July 11, 1922

Fig. 1.

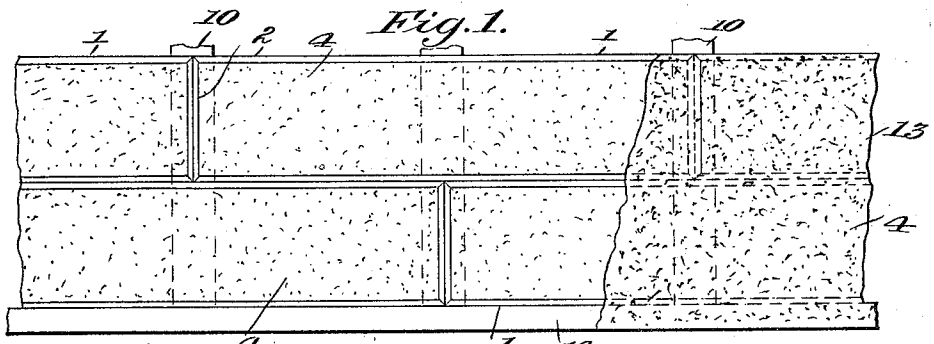


Fig. 2.

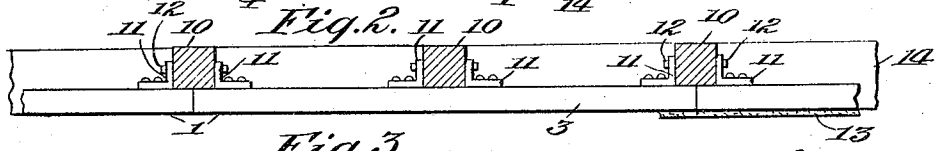


Fig. 3.

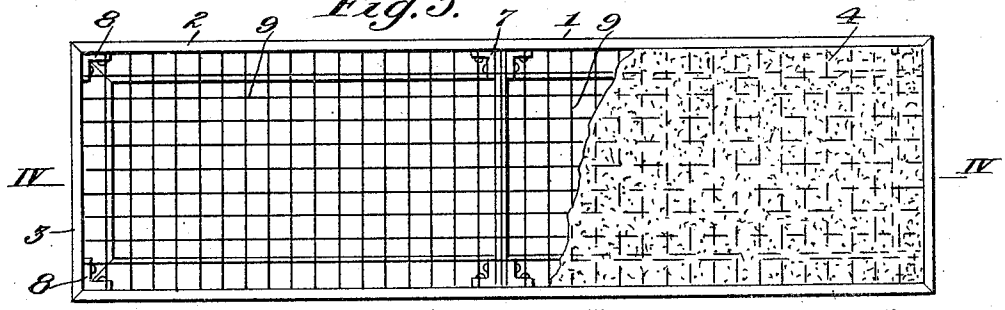


Fig. 4.

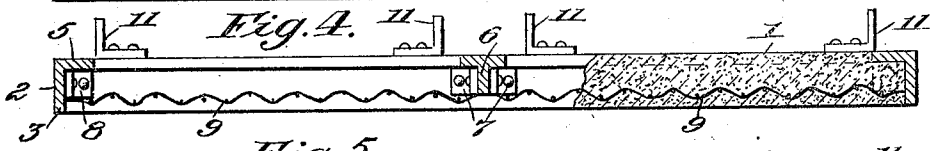
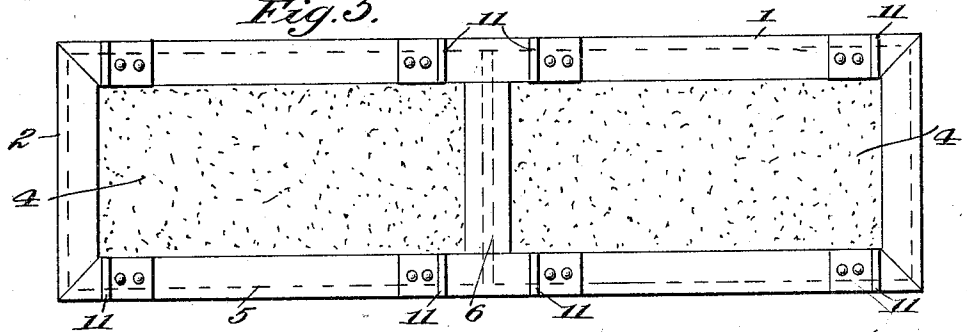


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN NEWELL, OF SCARSDALE, NEW YORK.

CONCRETE WALL BLOCK.

Application filed July 11, 1922. Serial No. 574,133.

To all whom it may concern:

Be it known that I, JOHN NEWELL a citizen of the United States, residing at Scarsdale, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Concrete Wall Blocks, of which the following is a full, clear, and exact specification.

This invention relates to building or wall blocks and walls constructed thereof, and it has for its object to provide an improved form of concrete block which may be constructed completely before use, applied to the framework of a building and secured to said framework for forming the walls of the building in an expeditious and economical way. The invention also contemplates covering the outer face of a wall constructed of said blocks with a coating of plastic material or concrete for closing the joints between the wall blocks.

The invention will be first hereinafter described in connection with the accompanying drawings, which constitute part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings, wherein similar reference characters are used to designate corresponding parts throughout the several views:—

Figure 1 is an elevation of a portion of a wall composed of a plurality of concrete blocks made and assembled in accordance with this invention, part of said wall being covered by the outer plastic or concrete layer.

Figure 2 is a plan view of said wall portion as shown in Figure 1.

Figure 3 is a detailed front elevation of one of the building blocks drawn to a larger scale and having only part of its concrete filling.

Figure 4 is a longitudinal section on the line IV—IV of Figure 3, and

Figure 5 is a rear elevation of the completed block.

The building blocks 1 may be made in any desired shapes and sizes. As illustrated in the accompanying drawings, said blocks are made rectangular and of uniform size so that they may be laid like bricks so as to break joints, see Figure 1. Each block 1 has an inclosing frame 2 preferably of angle iron or other suitable metal bars, said frame having a flange 3 extending around and inclosing the concrete filling 4 and arranged at right angles to the plane of the wall, and a surrounding flange 5 extending inwardly from the flange 3 and arranged parallel to the plane of the wall. The latter flange overlaps the concrete filling and serves to support the rear face of the latter, while the flange 3 incloses said concrete filling and protects the marginal edges of the same, maintaining the straight lines of said edges.

The blocks 1 may be reinforced by one or more vertical strips 6, preferably of T-iron, secured to the frames 2 by angle brackets or knees 7, the base flanges of said strips being arranged in the planes of the flanges 5. It will also be noted that the frame members are mitered at the corners and fastened together by angle brackets or knees 8. Wire mesh material 9 is laid in the frames preferably upon or against the strips 6 and knees 7 and 8, as shown in Figures 3 and 4, and covered by the concrete filling 4.

The blocks may be supported against upright beams of wood or other suitable material, as indicated at 10 in Figures 1 and 2, said blocks having angle clamps or clips 11 secured to their rear surfaces in position to embrace or engage the lateral faces of said upright beams 10 to which they may be nailed or screwed, as at 12, Figure 2. The clips 11 may be arranged in the same relative positions on each block, two pairs of inwardly facing clips being located near the center of each block, and a single pair of outwardly facing clips located near each end thereof, so that said clips will properly engage the beams 10 when the blocks are laid so as to break joints.

When the wall has been built up of blocks as suggested in Figure 1, the outer surface thereof is covered with a coating or splashing of concrete or other plastic material which may be colored and finished to suit the taste of the owner of the building. Said outer coating or covering 13 conceals the building blocks and closes any cracks between the meeting edges thereof in the wall so as to make said wall entirely weather tight. With the construction herein described and illustrated the building blocks may be made relatively thin and of considerable extent, so as to enable the builder to construct a wall of given dimensions in much less time and at a great deal less cost than when bricks or other forms of building blocks are used.

The metal frames around the blocks make it possible to maintain the unity and straight edges of large blocks in transportation and when applying them to the wall beams. As shown in Figure 1, the bottom row of blocks may be placed upon a base beam or sill 14.

I claim:—

1. A building block comprising a marginal frame of metal having an inwardly extending flange at right angles to the latter around one edge of thereof, and a filling of plastic material inclosed in said frame and abutting against said flange, said plastic filling being flush with the outer face of said flange.

2. A building block comprising a marginal frame of metal, an upright reinforcing strip in said frame extending between and secured to the upper and lower parts of said frame and having a flat portion arranged parallel to the ends thereof, and a filling of plastic material in said frame and covering the outer edge of said strip.

3. A building block comprising a marginal frame having side sections, angle brackets connecting the ends of said sections and arranged within the frame, wire mesh material in said frame and seated against said brackets, and a filling of plastic material in the frame and covering said wire mesh material.

4. A building block comprising a marginal frame, a reinforcing strip extending between and secured to opposite parts of said frame, the front edge of said strip being spaced inward from the plane of the front edge of the frame, wire mesh material in the frame and seated upon said front edge of said strip, and a filling of plastic material in the frame and covering said strip and wire mesh material.

5. A building block comprising a marginal frame having an inwardly extending flange at right angles to the latter around one edge thereof, a reinforcing strip of T-form secured across said frame with its base flange in the plane of the inwardly extending flange on the frame, and a filling of plastic material in said frame.

6. A building block comprising a marginal frame of metal having an inwardly extending flange at right angles to the latter around one edge thereof, a filling of plastic material inclosed in said frame, said flange being embedded in said plastic material and having its outer face flush with the corresponding surface of the plastic material and of said block, and right angular brackets secured at intervals to the exposed face of the flange for attaching said block to a wall.

In testimony whereof I have signed my name to this specification.

JOHN NEWELL.