

T. I. YOURELLE & J. BELLINGHAM.
 FERROCONCRETE CONSTRUCTION OF BUILDINGS.
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1,038,257.

Patented Sept. 10, 1912.

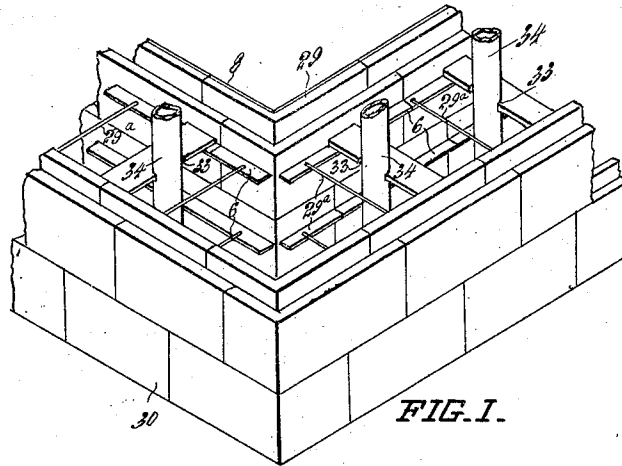


FIG. 1.

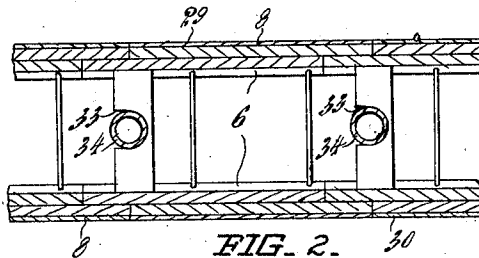


FIG. 2.

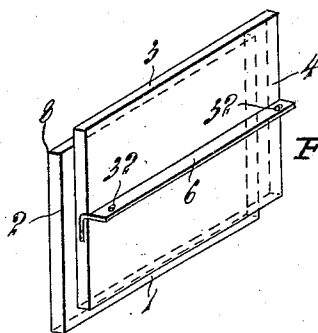


FIG. 3.

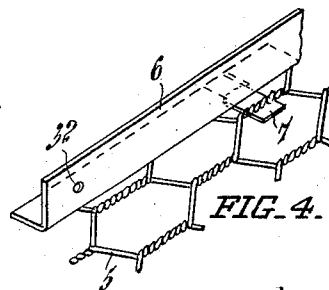


FIG. 4.

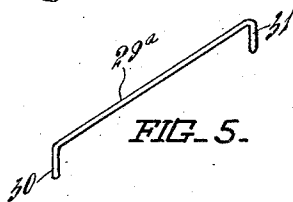


FIG. 5.

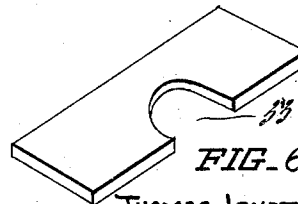


FIG. 6.

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FERROCONCRETE CONSTRUCTION OF BUILDINGS.

1,038,257.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, THOMAS IGNATIUS YOURELLE and JOHN BELLINGHAM, subjects of His Majesty the King of Great Britain and Ireland, and both residing at 215 Lambton Quay, Wellington, in the Provincial District of Wellington, in the Dominion of New Zealand, have invented certain new and useful Improvements in Ferroconcrete Construction of Buildings, of which the following is a specification.

The invention relates to the construction of buildings having inner and outer walls of slabs or plates, said walls being connected by cross ties and the space between them wholly or partially filled by concrete.

The invention provides an improved form of reinforced slab or plate, means for connecting the inner and outer walls by ties, and apparatus for use when filling with concrete part only of the space between the walls.

Referring to the accompanying drawings; Figure 1, is a perspective view of the corner of a building in course of construction, Fig. 2, a sectional plan of part thereof, Fig. 3, a perspective view of a slab, Fig. 4, a similar view of the reinforcement thereof shown independently, Fig. 5, a perspective view of a tie for connecting the inner and outer walls, Fig. 6, a similar view of a distance piece.

The slab according to our invention (as shown particularly in Fig. 3) has edges 1 and 2 projecting respectively from the bottom and side of the inner face and the edges 3 and 4 projecting respectively from the top and opposite end of the outer face. The slab appears as if it were composed of two equal slabs one upon and overlapping the other. In the course of manufacture, wire netting 5 is embedded in the slab which has also the angle iron 6 partly embedded in it. The angle iron (see Fig. 4) is double cut in places and the portion between the cuts bent back to form a hook 7 which engages beneath the wire netting. The slab may have a facing 8 of sheet glass or may be rough cast to represent stone.

The mode of employing the blocks in a building is shown in Figs. 1 and 2. The inner and outer walls 29 and 30 respectively are built up with cement joints the edges of each block on all sides overlapping or being overlapped by the edges of the blocks in immediate juxtaposition. The blocks are made

in two lengths so that a break of joint is obtained as in ordinary brickwork.

The inner and outer walls are connected by ties 29^a shown in Fig. 5, each tie having hooked ends 30 and 31 respectively which hooks engage in holes 32 provided for the purpose in the metal reinforcing bars 6 which may be of angle or T iron. Distance pieces shown in Fig. 6 may also be employed for facilitating the spacing apart of the walls, those pieces rest upon the metal reinforcing bars, are recessed at 33 to fit partly around tubular uprights 34 which may be used in the space between the walls for strengthening purposes.

The space between the walls may be entirely filled in with concrete as the erection of the walls proceed, or if desired stiffening pillars of concrete may be formed at intervals.

What we do claim and desire to secure by Letters Patent of United States is:—

1. A building block comprising a slab composed of two equal rectangular portions of cement-like material integrally joined face-to-face with a top and end edge of one advanced above and beyond the corresponding top and end edge of the other; a wire netting extending from edge to edge of one of said portions parallel to the broad face thereof; an angle iron extending horizontally from end to end of the slab and having a vertical web in said last named portion and against said netting and provided with cuts forming tongues bent back and engaging beneath said netting, the horizontal web of said angle iron extending from said slab and being provided with small holes.

2. A building block comprising a slab composed of two equal rectangular portions of cement-like material integrally joined face-to-face with a top and end edge of one advanced above and beyond the corresponding top and end edge of the other, a wire netting extending from edge to edge of said portions parallel to the broad face thereof; an angle iron extending horizontally from end to end of the slab and having a vertical web in said last named portion and against said netting and provided with cuts forming tongues bent back and engaging beneath said netting, the horizontal web of said angle iron extending from said slab and being provided with small holes and horizontal tie-rods having turned down ends engaging in

said holes and adapted to connect inner and outer walls.

3. A building block comprising a slab composed of two equal rectangular portions of cement-like material integrally joined face-to-face with a top and end edge of one advanced above and beyond the corresponding top and end edge of the other; a wire netting extending from edge to edge of one of said portions parallel to the broad face thereof; an angle iron extending horizontally from end to end of the slab and having a vertical web in said last named portion and against said netting and provided with cuts

forming tongues bent back and engaging beneath said netting, the horizontal web of said angle iron extending from said slab and being provided with small holes; horizontal tie-rods having turned down ends engaging in said holes, and a glass face on said slab.

In testimony whereof we have signed our names to this specification in the presence of two witnesses.

THOMAS IGNATIUS YOURELLE.
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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."