

J. MITCHELL.
CONSTRUCTION OF BUILDING WALLS.
APPLICATION FILED SEPT. 26, 1910.

1,039,313.

Patented Sept. 24, 1912.

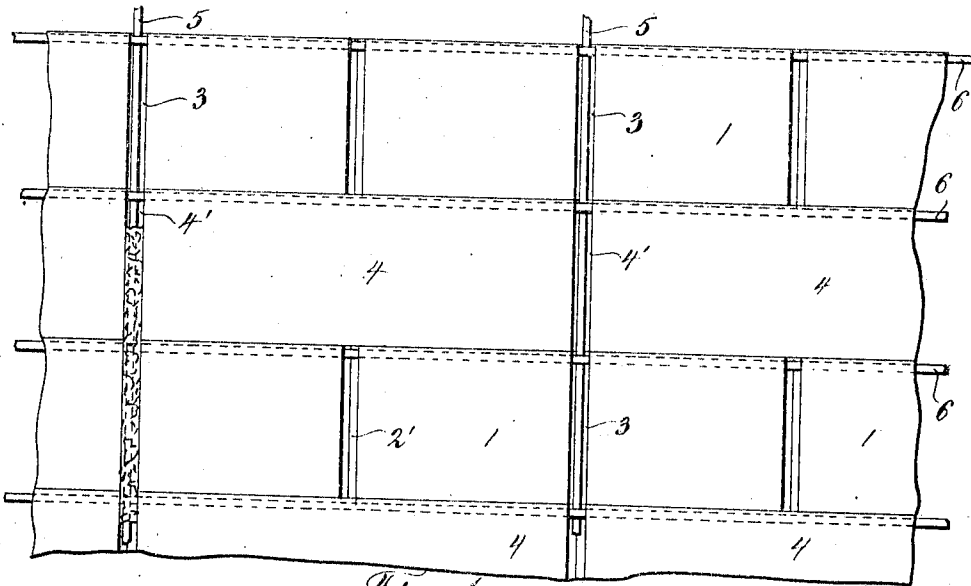


Fig. 1

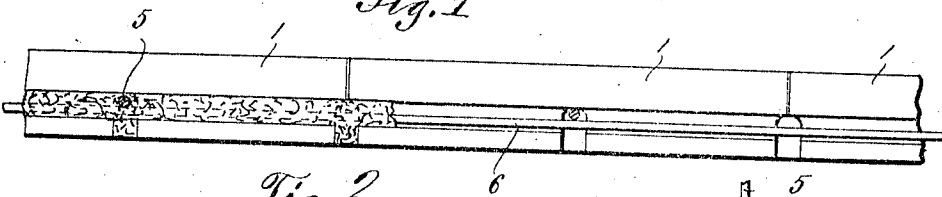


Fig. 2

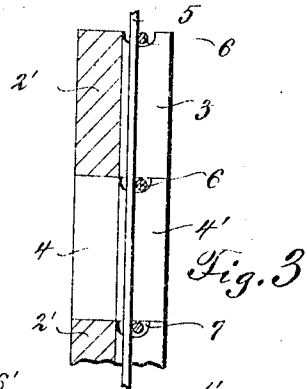


Fig. 3

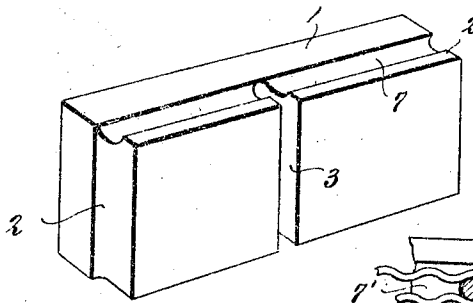


Fig. 4

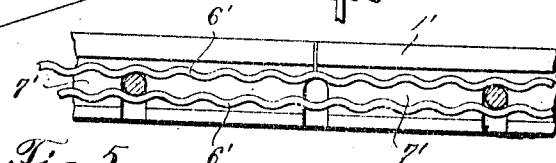


Fig. 5

Witnesses

E. Larson
Chas. F. Calhoun

Inventor

John Mitchell

By

Declaro Ross
Attorneys

UNITED STATES PATENT OFFICE.

JOHN MITCHELL, OF PONSONBY, NEW ZEALAND

CONSTRUCTION OF BUILDING-WALLS.

1,039,313.

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To all whom it may concern:

Be it known that I, JOHN MITCHELL, a citizen of the Dominion of New Zealand, residing at Ponsonby, in the Provincial District of Auckland, Dominion of New Zealand, have invented certain new and useful Improvements in Constructions of Building-Walls, of which the following is a specification.

This invention relates to that type of reinforced building wall construction disclosed in my pending application for patent, Serial Number 555,540, filed April 4, 1910, and involves a somewhat different application of the reinforcing means as specifically employed in the above identified invention.

In the present embodiment of my invention, I aim, as heretofore, to eliminate all necessity for employing false work, framing of wood, shuttering, etc., in the actual building of the wall, and at the same time I so peculiarly combine the reinforcing means, namely, vertical and horizontal rods, with the blocks or slabs, as they are laid in courses, as to derive exceedingly advantageous results from the standpoint of rendering rigid the construction of a wall, rendering the latter most substantial in resisting vertical and horizontal stresses and affording a unitary wall in which the blocks and rods are interlocked firmly to counteract strain in all directions.

For a full understanding of the present invention, reference is to be had to the following description and to the accompanying drawings, in which—

Figure 1 is a front elevation of a building wall constructed in accordance with the present invention; Fig. 2 is a plan view; Fig. 3 is a vertical section of a fragment of a wall; Fig. 4 is a detail perspective view of one of the building blocks; Fig. 5 is a fragmentary plan view of a modified embodiment of the invention.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

In the construction illustrated in Figs. 1 to 4 of the drawings, the building blocks 1 and 4 are laid in horizontal superposed courses, the blocks of one course being staggered with respect to those of an adjacent course as shown most clearly in Fig. 1. The

blocks 1 are formed with end recesses 2 and 55 a central or intermediate recess 3. In the upper edge of the block is provided a longitudinal trench 7 located intermediate the front and rear edges of the block. The blocks 4 are substantially of the same form 60 as the blocks 1 excepting that the intermediate vertical recess 3 is omitted in forming said blocks. When a course of the wall is laid by assembling the blocks 1, the adjacent ends of said blocks abut, forming 65 open recesses 2' substantially of the same size as the recess 3 in each of the blocks 1. The abutting ends of the blocks 4 form recesses 4' similar to the recesses 3 and 2'. Furthermore, when a horizontal course of 70 the blocks 1 is laid, the central vertical recesses 3 in the faces of said blocks are in line with the recesses 4' between the ends of the blocks 4. The aligned recesses 3 and 4' of the respective courses of blocks are 75 designed to receive vertical reinforcing rods 5, said rods 5 having a firm bearing against the central portion of the blocks 1 of the various courses, and a similar bearing, but not so substantial a one necessarily, against 80 the end portions of the blocks 4. Laid between the horizontal courses of blocks above described are the horizontal reinforcing rods 6, the same being received in the aligned trenches 7 provided in the upper edges of 85 the blocks 1 and 4. The rods 6 are adapted to hold the rods 5 in the recesses in which said rods are received, both vertical and horizontal reinforcing rods being thus interlocked with respect to the blocks against, 90 or on which they are seated.

In finishing a wall constructed as above described, plaster or other plastic material may be filled into the recesses 2' and 4', said recesses forming an excellent key for plastering the wall. The rigid bearing of the reinforcing means herein set forth against the wall will be readily apparent as well as the peculiar substantial locking of said reinforcing means with said wall. 100

Under some conditions, the strength of a wall of the type of this invention may be materially increased by using crimped horizontal reinforcing rods 6', the same being laid in the horizontal trenches 7' in the 105 upper surfaces of the blocks 1' and upon opposite sides of the vertical reinforcing rods 5'. The strengthening action of the

rods 6' interlocked with the rods 5' with respect to strain in the plane of the wall construction, will be very evident.

Having thus described my invention, what I claim as new is:

A reinforcing wall construction comprising courses of blocks, vertical rods engaging said blocks, the blocks having recesses receiving said rods, and also being formed with horizontal trenches, and horizontal

crimped rods received in said trenches and having their crimped portions in direct interlocking engagement with the vertical rods.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN MITCHELL.

Witnesses:

HUGH SWEENEY,
PHILIP O'HAGAN.