

1,107,428.

Patented Aug. 18, 1914.

Fig. 1.

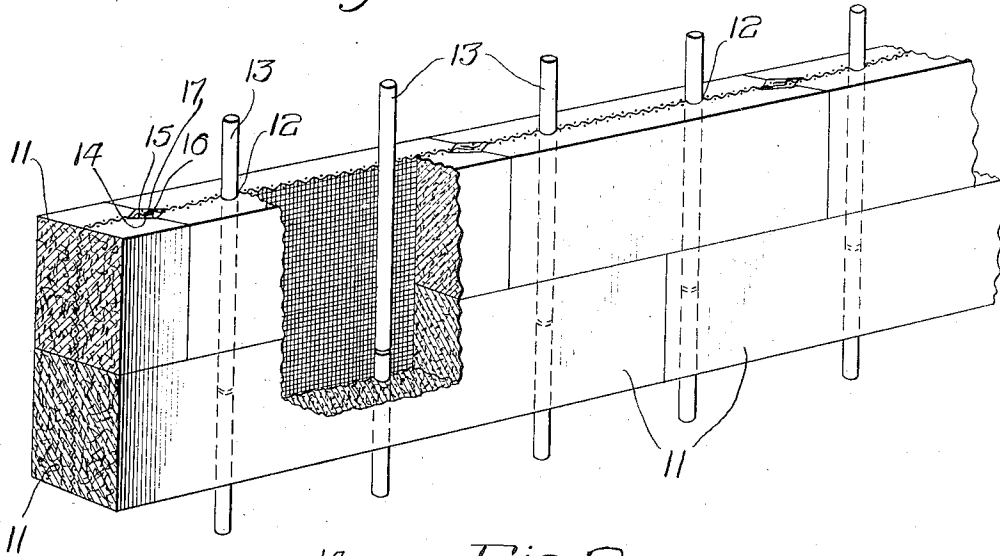


Fig. 2.

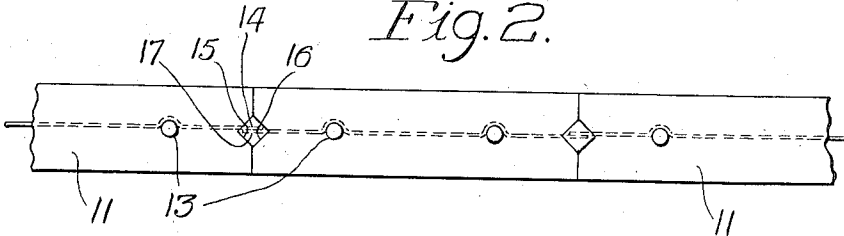


Fig. 3.

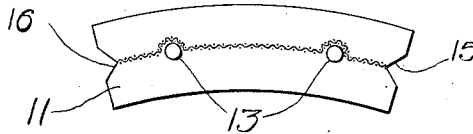
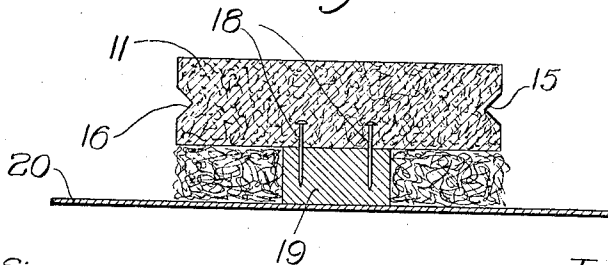


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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BUILDING-BLOCK.

1,107,428.

Specification of Letters Patent.

Patented Aug. 18, 1914.

Application filed February 24, 1913. Serial No. 750,116.

To all whom it may concern:

Be it known that I, ELBRIDGE T. LIKES, a citizen of the United States, and residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Building-Blocks, of which the following is a specification.

The invention relates to building blocks and more especially to reinforcing and bonding concrete blocks.

An object of the invention is to provide a reinforcement which will unite one block with another and at the same time reinforce the same, thus accomplishing two results by one means.

Another object of the invention is to reinforce concrete blocks vertically and bond them to one another one block above the other, and also to reinforce them longitudinally and unite their adjacent sides together and vice versa.

A still further object of the invention is to provide means for securely holding a concrete block wall in place and which will permit a substance to be applied by means of which moisture will be prevented from entering the building from the concrete blocks.

These and other features, capabilities and advantages of the invention will become more apparent from a detail description of the drawings in which—

Figure 1 is a perspective view of an embodiment of the invention with parts broken away showing the means which reinforce the blocks and unite them with one another. Fig. 2 is a top plan view of the same. Fig. 3 is a top plan view of a similar construction in which the block is curved, and Fig. 4 is a top plan view showing the manner in which the concrete block wall may be secured to a timber which is fixed to a metal lining forming a space within which a moisture proof substance may be poured.

In the drawings, the blocks 11 are shown vertically secured to one another by providing vertical openings 12 through which metallic rods 13 are passed. These rods may be passed from one block to approximately the middle of the next block and then another rod passed from there on to the next succeeding block. To bond the blocks to one another, the blocks are formed with a wire mesh running through the middle of them. For convenience of describing, I will designate the right hand end of the wire mesh 14. At the right hand ends of the

blocks an angular groove 15 is provided, the wire mesh protruding from the blocks directly at the angle. This mesh in actual practice protrudes beyond the side of the block a sufficient distance to extend into a similar groove 16 in the left hand end of an adjacent block. The left hand end 17 of the wire mesh in the adjacent block protrudes from its groove 16 into groove 15 and overlaps the right hand end 14 of the wire mesh protruding from groove 15. In the present instance, the opening thus formed is quadrangular. Into this opening, mortar is poured and when this forms and hardens, the two blocks are securely bonded to another. Similar angular grooves in addition thereto may be formed along the horizontal sides of the blocks and the horizontal adjacent sides of the blocks secured to one another in the same manner, or the place of bonding may be only along the horizontal adjacent sides of the blocks. Obviously the walls thus formed may also be curved as shown in Fig. 4. It will also be seen that these rods may be placed horizontally of the blocks to bond the blocks to one another horizontally. Instead of wire mesh, rods may be used to reinforce the blocks and bond their adjacent sides together.

To prevent moisture from entering the building, a novel means is provided. Nails 18 are secured to the inside face of the blocks with their heads and a portion of their shanks buried in the block as shown in Fig. 4. The nails are then driven into a wooden beam or timber 19 which beam is secured to a sheet of metal 20 forming a lining. Between this metal lining 20 and the concrete block wall, asphaltum may then be poured. By this means, moisture coming from the concrete blocks will be positively prevented from entering the building.

While there is herein shown and described only one embodiment of the invention it is to be understood that various changes and modifications may be made by those skilled in the art without departing from the scope of the invention as defined in the appending claim.

What I claim as new and desire to secure by Letters Patent is:

A concrete block wall comprising a plurality of building blocks, each block being provided with an open groove in opposite edges thereof and said grooves having open ends, reinforcing material embedded in each

block, the ends of the material projecting
into the grooves and the extremities of said
material projecting beyond the respective
edges of the block, and into the groove in the
5 edge of the next adjacent block and overlap-
ping in said grooves, the cooperating grooves
of adjacent blocks completely housing the
projecting reinforcing material and forming
a receptacle for bonding material, the ad-
10 jacent ends of the blocks abutting and the
faces of the blocks being substantially flush
to form a substantially uninterrupted flat
surface, each of the blocks being provided
with one or more openings extending through

the edges of the block and arranged substan- 15
tially parallel with the said grooves, and ad-
ditional reinforcing elements arranged in
said openings and projecting beyond the
edges of the block and into the respective
openings in the next adjacent block. 20

In witness whereof, I hereunto subscribe
my name to this specification in the pres-
ence of two witnesses.

ELBRIDGE T. LIKES.

Witnesses:

J. W. McLEAN,
H. E. HART.