No. 799,784. PATENTED SEPT. 19, 1905.

G. F. FISHER.

BUILDING CONSTRUCTION.

APPLICATION FILED MAY 28, 1903.

4 SHEETS—SHEET 1.

Fig. 1.

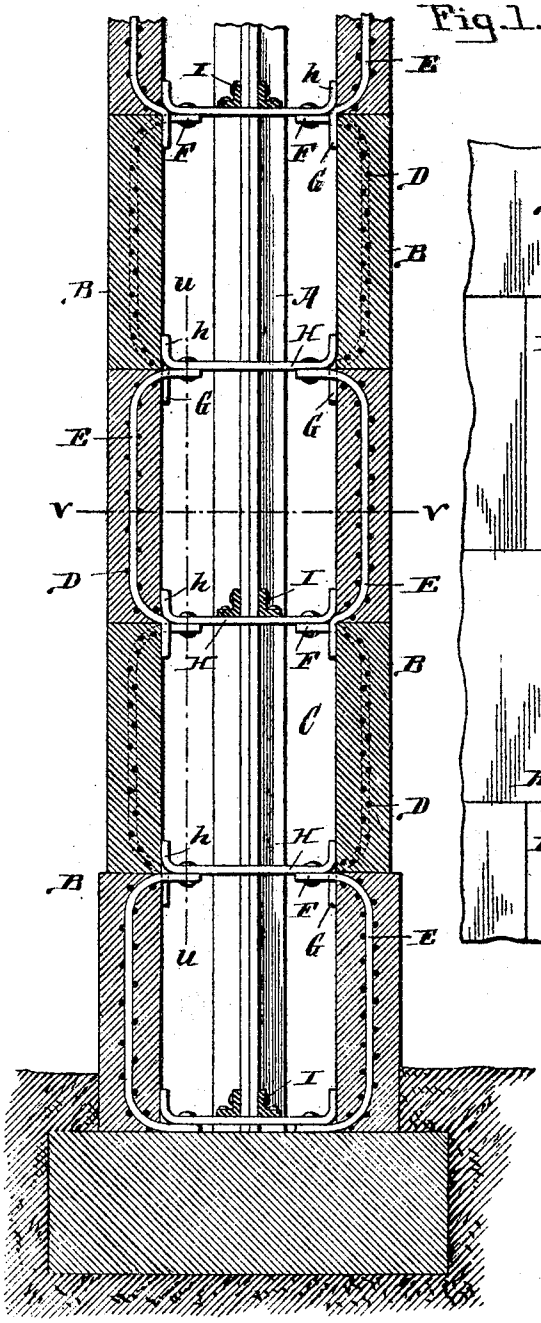
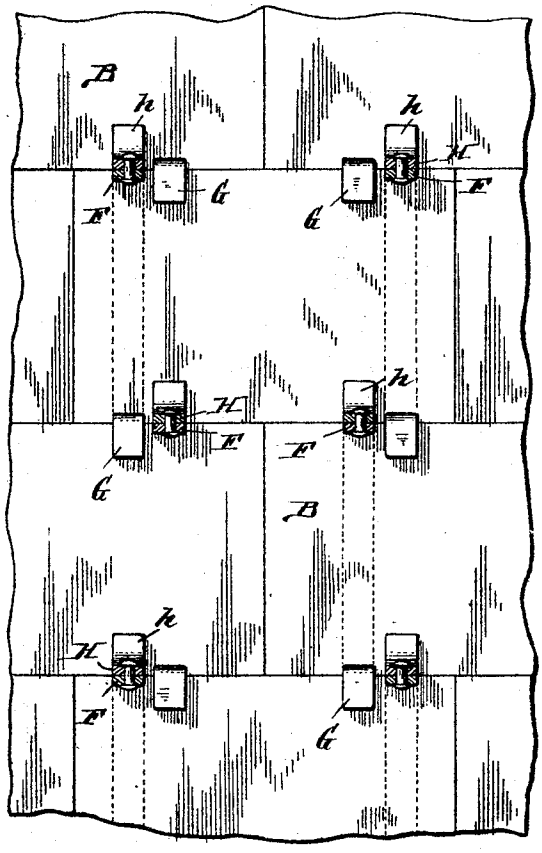


Fig. 2.



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4 SHEETS—SHEET 2.

Fig. 3.

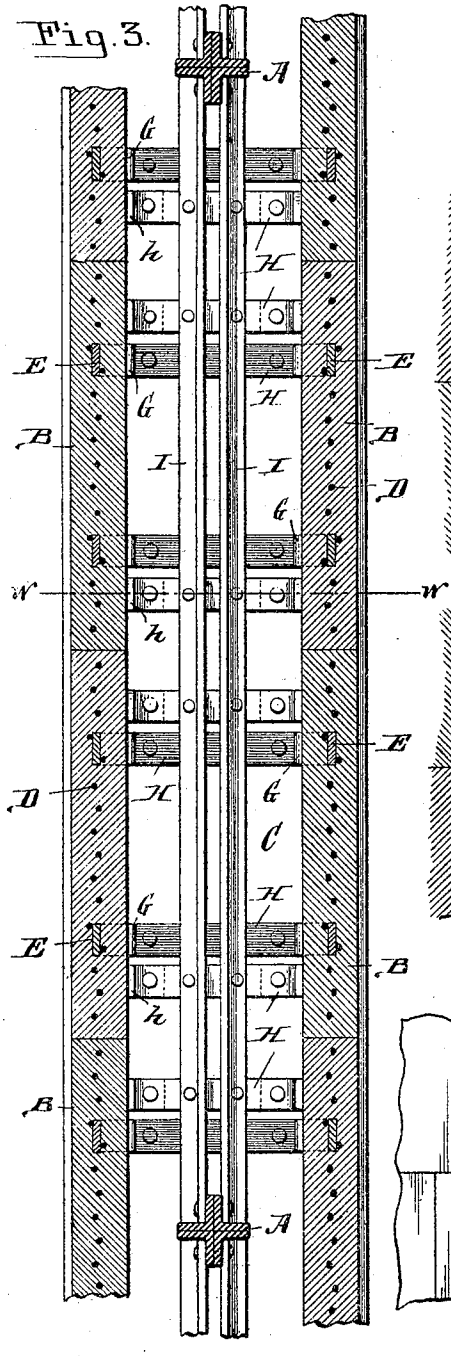


Fig. 4.

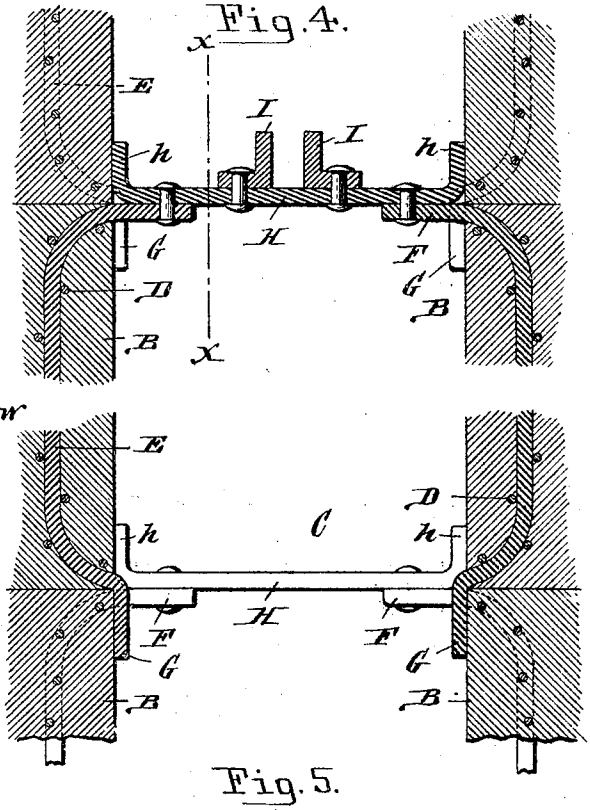
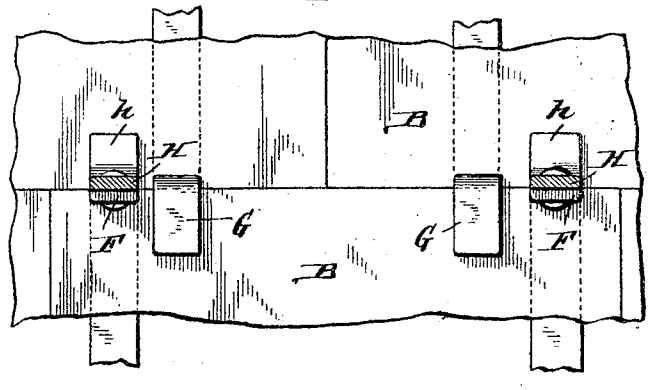


Fig. 5.



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4 SHEETS—SHEET 3.

Fig. 6.

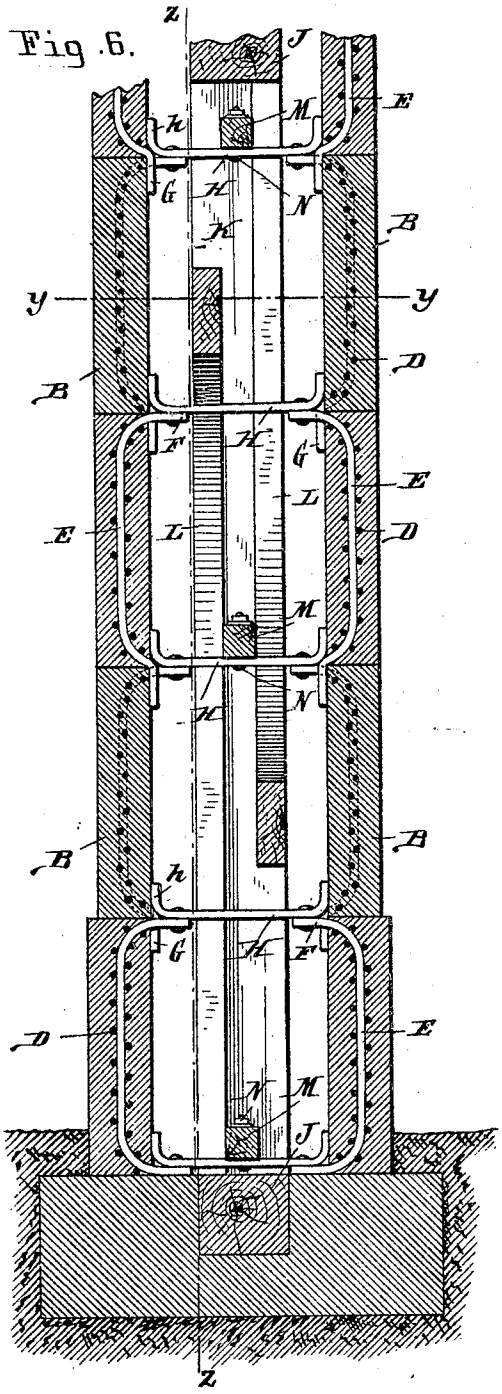
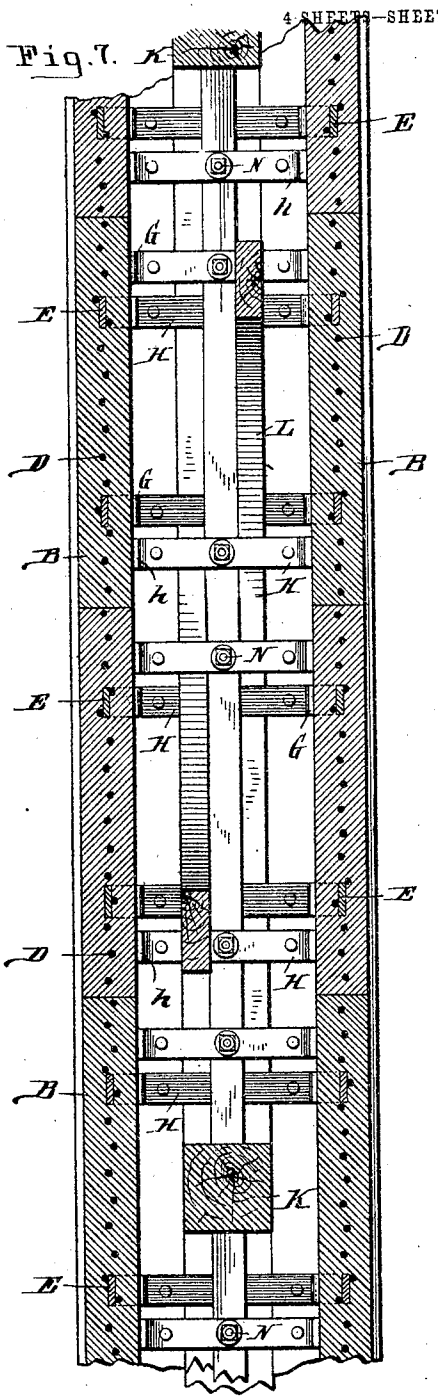


Fig. 7.



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4 SHEETS—SHEET 4.

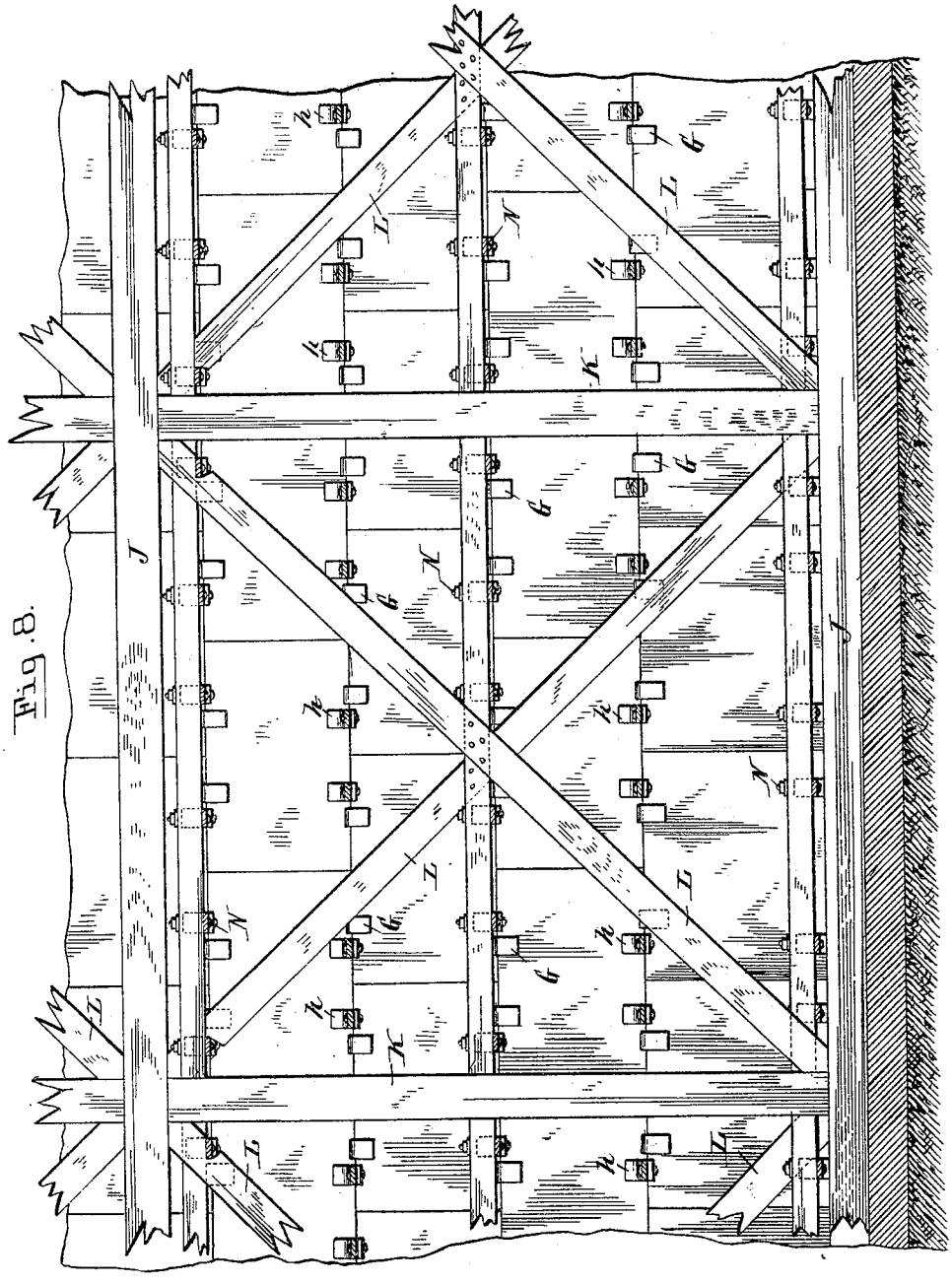


Fig. 8.

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UNITED STATES PATENT OFFICE.

GEORGE F. FISHER, OF NORTH TONAWANDA, NEW YORK.

BUILDING CONSTRUCTION.

No. 799,784. Specification of Letters Patent. Patented Sept. 19, 1905.

Application filed May 28, 1903. Serial No. 159,119.

To all whom it may concern:

Be it known that I, GEORGE F. FISHER, a citizen of the United States, residing at North Tonawanda, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Building Construction; and I do hereby declare the following to be a full, clear, and exact description of my invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to building construction in which a steel, iron, wood, or other suitable frame is used on which my improved building-blocks are secured and tied together by new and improved means.

The object of this invention is to provide a cheap, substantial, and serviceable building which can be quickly erected and razed with ease and without destruction of any part thereof, whereby the material may be used a second time, if desired.

Further objects are to form an outer and inner wall which are connected together and to the frame of the building and which are separated by an air-space, always desirable in buildings of this type, and to provide means whereby the upper ends only of the building-blocks are connected together, while the lower ends thereof are held against movement inwardly or outwardly by reason of the peculiar construction of said connecting means.

To these ends the invention consists in the novel construction, arrangement, and combination of parts, as will be hereinafter described, and particularly pointed out in the appended claims.

Referring to the drawings, Figure 1 is a vertical transverse section of a wall, showing my improvements applied in the construction thereof. Fig. 2 is a vertical longitudinal section taken on line *u u*, Fig. 1, showing a portion of the wall. Fig. 3 is a horizontal section taken on line *v v*, Fig. 1. Fig. 4 is an enlarged vertical section through a portion of a wall, taken on line *w w*, Fig. 3. Fig. 5 is a vertical section taken on line *x x*, Fig. 4. Fig. 6 is a vertical section of a building-wall, showing my improvement applied to a wooden frame. Fig. 7 is a horizontal section taken on line *y y*, Fig. 6. Fig. 8 is a reduced vertical section taken on line *z z*, Fig. 6.

Referring to the drawings in detail, like letters of reference refer to like parts in the several figures.

The building-blocks inclose a skeleton structure which may be constructed in any practical manner and, as illustrated in Figs. 1 to 5, comprise, essentially, iron or steel uprights A, supported on any suitable foundation and being connected together in any of the well-known and customary styles by suitable horizontal girders, so as to provide a substantial support to which the building-blocks may be connected.

This invention provides for two vertical rows of building-blocks B, set edge on edge, on opposite sides of the uprights and between which an air-space C is formed. The blocks are supported on a foundation and are made of any suitable plastic composition, molded into any form so as to represent dressed, rock-faced, bush-hammered, or any other style of stone, and, if desired, a suitable pigment may be added to imitate brown stone or any other stone. A metallic trellis D is embedded in each of the blocks and consists, preferably, of a wire screen; but expanded metal or other like material may also be suitable. This trellis gives the block the quality of endurance and strength and prevents destruction of the entire block, and any damage done to the block will be confined to one or the other side of the trellis and can therefore be conveniently and quickly repaired. Securing-irons E are also embedded in the blocks and pass through openings in the trellis, and thus form a substantial frame, on both sides of which the plastic composition is applied and molded into the desired outline and design and when set forms a light and most durable building-block. The said securing-irons extend the entire width of the block, and at the upper edge of the latter they project from the rear face of the same inwardly and form securing ends F, which have their upper ends flush with the upper edge of the block. The opposite ends of the said securing-irons project from the rear face of the block and are directed downward to form depending retainers G, which have their outer faces in direct line with the inner faces of the blocks forming the wall-section and bear against the inner marginal portion of the next lower block. The projecting ends of the securing-irons of the inner wall-section are opposed to the projecting ends of the securing-irons of the outer wall-section, and both extend into the air-space between the wall-sections and are connected together by means of transverse braces or links H, which are riveted or otherwise secured to said projecting

securing-irons and have their ends curved upward to form retainers *h*, which bear against the inner marginal portions of the blocks directed directly above the blocks to which said links are secured. By this arrangement the upper ends of all the blocks are tied together by means of the braces or links H, which also prevent inward displacement of the blocks directly above, while the depending retainers G of the latter prevent outward displacement of the same. The alternate horizontal rows of links H are riveted to longitudinal angle-irons I, which have their ends secured to the uprights A in any suitable manner, and thus the blocks are securely connected to the frame of the building and a most substantial structure is thereby assured. If desired, the longitudinal angle-irons I may be arranged for connection with every horizontal row of links; but I have found in practice that a frame connection for every second or third row is sufficient. This, however, depends considerably on the dimensions of the building-blocks and may be varied accordingly. The securing-irons in the lowermost blocks of a wall I provide with inwardly-projecting securing ends instead of depending retainers and connect both the upper and lower ends of the block by links.

In Figs. 6 to 8 of the drawings I have shown my improvements in connection with a skeleton building-frame constructed of wood. In such cases I preferably provide a sill J for each floor of the building and uprights K, connecting the sills. Diagonal braces L are provided, which are separated from each other to permit of horizontal pieces M being passed between the two. The braces or links H are bolted to the horizontal pieces M, as at N.

Having thus described my invention, what I claim is—

1. In a building, the combination of a suitable frame, a series of building-blocks set edge upon edge on opposite sides of said frame and having securing-irons embedded therein, each securing-iron having an inwardly-projecting free end, and means for connecting the free ends of the irons of opposite blocks.

2. In a building, the combination of a suitable frame, a series of building-blocks set edge upon edge on opposite sides of said frame and having securing-irons embedded therein, each securing-iron having an inwardly-projecting free end, and means secured to the frame and connecting the free ends of the irons of opposite blocks.

3. In a building, the combination of a suitable frame, two vertical rows of building-blocks on opposite sides of said frame, said blocks having securing-irons embedded therein and projecting therefrom, and links connecting the projecting ends of the irons of opposite blocks.

4. In a building, the combination of a suitable frame, two vertical rows of composition blocks inclosing said frame and each block having securing-irons embedded therein and projecting therefrom and means for connecting the projecting ends of opposite securing-irons.

5. In a building, the combination of a suitable skeleton frame, two vertical rows of composition blocks inclosing said frame and each block having securing-irons embedded therein and projecting therefrom, and means for connecting the projecting ends of said securing-irons, said means being connected to the said frame.

6. In a building, the combination of a suitable frame, two vertical rows of composition blocks inclosing said frame and each block having securing-irons embedded therein, means for connecting the upper ends of opposite blocks together, and means forming part of each block for preventing outward movement of the lower end of the block.

7. In a building, the combination of a suitable frame having uprights and horizontal bars connecting said uprights, two vertical rows of building-blocks inclosing said frame, and links secured to said horizontal bars and connecting the blocks of said two rows together.

8. In a building, the combination of a suitable frame having uprights and horizontal bars connecting said uprights, two vertical rows of composition building-blocks on opposite sides of said frame and inclosing the same, and securing-irons extending from said blocks and having connection with said horizontal bars, opposite blocks having the securing-irons extending therefrom in opposite directions.

9. In a building, the combination of a suitable frame having uprights and horizontal bars connecting said uprights, two vertical rows of composition building-blocks on opposite sides of said frame and inclosing the same, securing-irons embedded in said building-blocks and each having its upper end projecting toward said horizontal bars and its lower end extending inwardly and downwardly to bear against the inner face of the next lower block, and links connecting the blocks of the said two rows together and also to said horizontal bars.

10. In a building, the combination of a suitable frame having uprights and bars connecting said uprights, two vertical rows of building-blocks inclosing said frame and links secured to said bars and connecting the blocks of said two rows together.

11. In a building, the combination of two vertical rows of building-blocks, and links connecting the upper ends of opposite blocks and having upturned ends adapted to bear against the inner faces of the blocks directly above those to which they are connected.

12. In a building, the combination of a suitable frame, two vertical rows of building-blocks on opposite sides of said frame, links

connecting the upper ends of said blocks, and means forming part of each block for preventing outward displacement of the lower end thereof.

13. In a building, the combination of two vertical rows of building-blocks set edge upon edge, and means secured to and connecting the upper ends of opposite blocks and serving also to prevent inward displacement of the lower ends of the blocks above those to which it is connected.

14. In a building, the combination of two vertical rows of building-blocks, links connecting the upper ends of opposite blocks and having their ends upturned to bear against the inner faces of the blocks above those to which they are connected.

15. In a building, the combination of two vertical rows of building-blocks having the upper ends of opposite blocks connected, and means forming part of each block for preventing outward displacement thereof, said means being located between the connections at the upper ends of the blocks.

16. In a building, the combination of two vertical rows of building-blocks, links connecting the upper ends of opposite blocks and having upturned ends adapted to bear against the inner faces of the blocks directly above those to which they are connected to prevent inward movement of the lower ends of the same, and means at the lower end of each block forming part of the same for preventing outward movement of the lower ends thereof.

17. In a building, the combination with a suitable frame, of a series of building-blocks set edge upon edge and each having a securing-iron embedded therein, each securing-iron having one end projecting inward for connection to the frame and its other end bent to lie in rear of the adjacent block, and links connecting the inwardly-projecting ends of the securing-irons with the frame.

18. In a building, the combination of two vertical rows of building-blocks, having corresponding ends of each block connected with an opposite block, and means for connecting the opposite end of each block to the connected end of the adjacent block so as to prevent outward displacement thereof.

19. In a building, the combination with a suitable frame, of a series of building-blocks set edge upon edge and each having a securing-iron embedded therein with a free projecting end, and links connecting the free ends of the securing-irons with the frame.

20. In a building, the combination with a suitable frame, of a series of building-blocks set edge upon edge and each having a securing-iron embedded therein with a free projecting end, and a link connecting the free end of each securing-iron with the frame, each link having an upturned end lying against the inner face of the block adjacent the one to which it is secured.

21. In a building, the combination with a suitable frame, of a series of building-blocks set edge upon edge and each having a securing-iron embedded therein, each securing-iron having one end projecting inward for connection to the frame and its other end bent to lie in rear of the adjacent block, and links connecting the inwardly-projecting ends of the securing-irons with the frame, each link having a bent end lying against the inner face of an adjacent block.

22. In a building, the combination of two vertical rows of building-blocks, and links connecting corresponding ends of opposite blocks, each link having a bent end adapted to bear against the inner face of the block adjacent that to which it is secured.

23. In a building, the combination with a suitable frame, of a series of building-blocks set edge upon edge, and links connecting the blocks with the frame, each link having a bent end lying in rear of the block adjacent the block to which it is secured.

In testimony whereof I have affixed my signature in the presence of two subscribing witnesses.

GEORGE F. FISHER.

Witnesses:
BERT MASON,
EMIL NEUHART.