(No Model.) 3 Sheets—Sheet 1.

W. M. IRELAND.

BUILDING STRUCTURE.

No. 556,676. Patented Mar. 17, 1896.

Fig. 1.

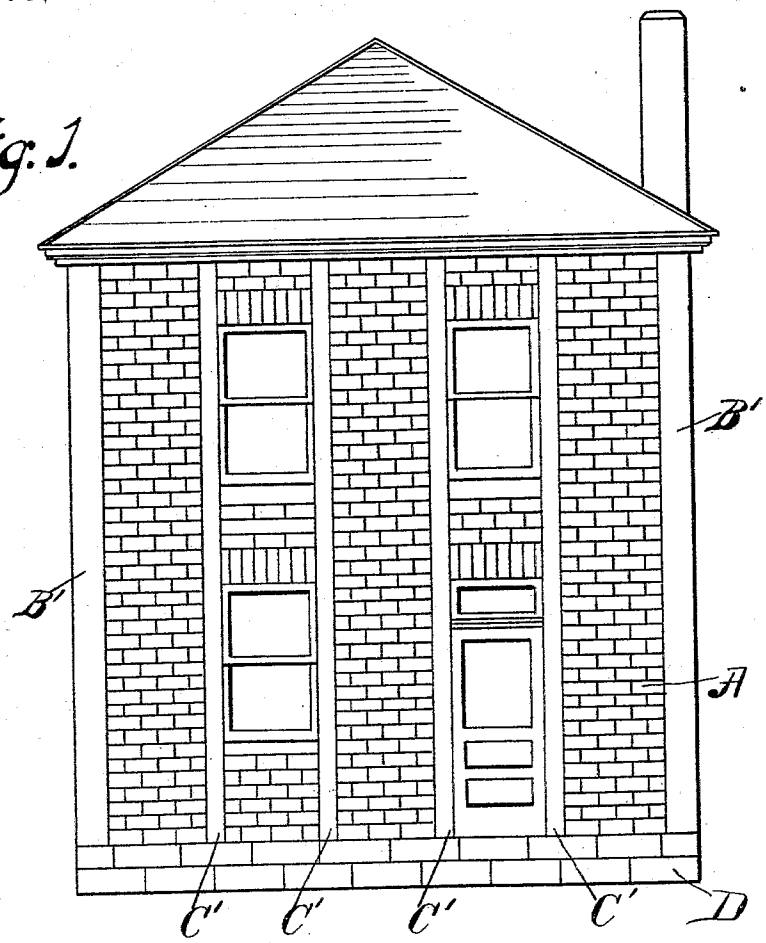
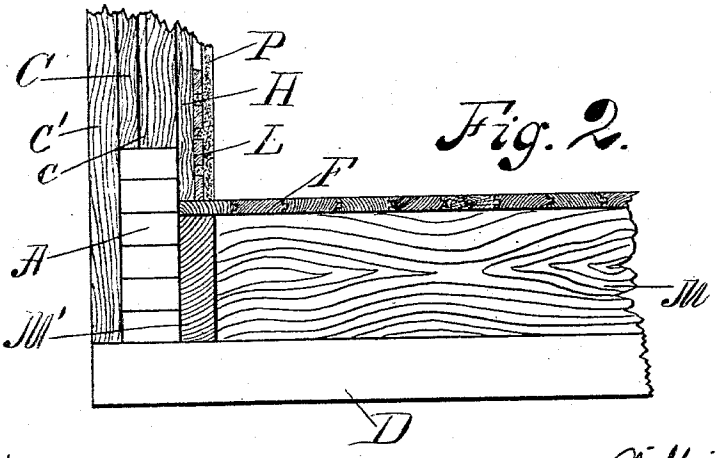


Fig. 2.



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(No Model.) 3 Sheets—Sheet 2.

W. M. IRELAND.

BUILDING STRUCTURE.

No. 556,676. Patented Mar. 17, 1896.

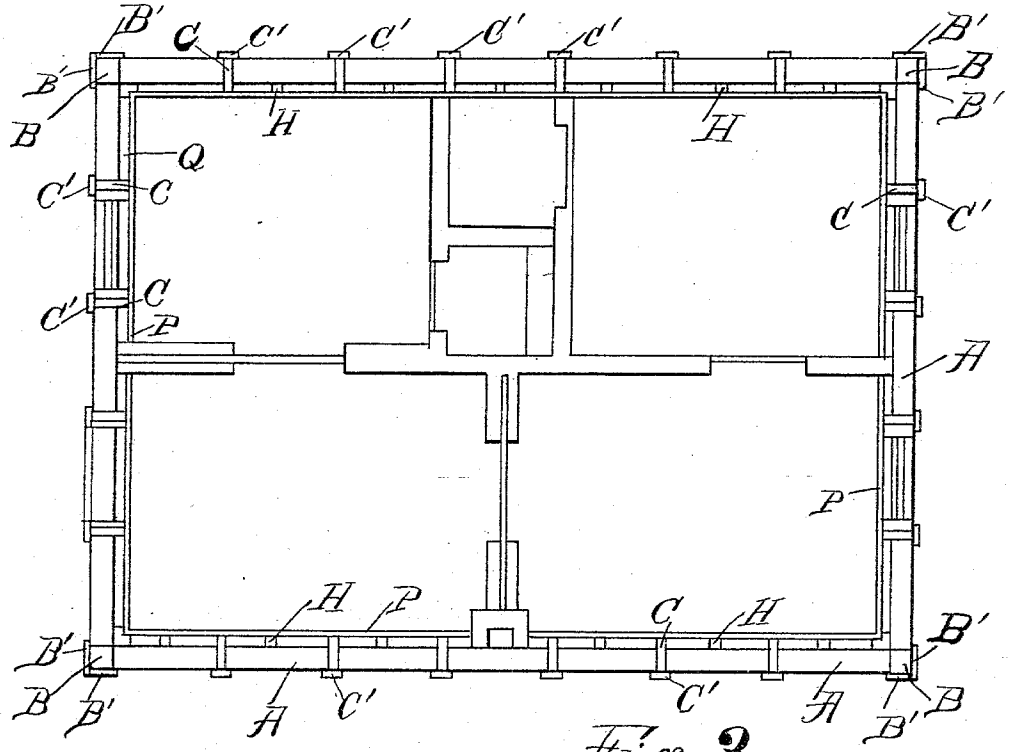

Fig. 3.

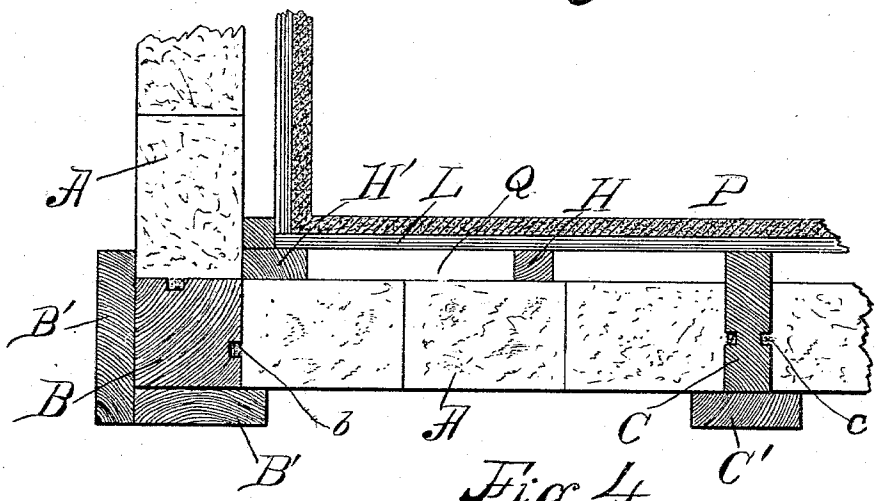

Fig. 4.

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(No Model.) 3 Sheets—Sheet 3.

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BUILDING STRUCTURE.

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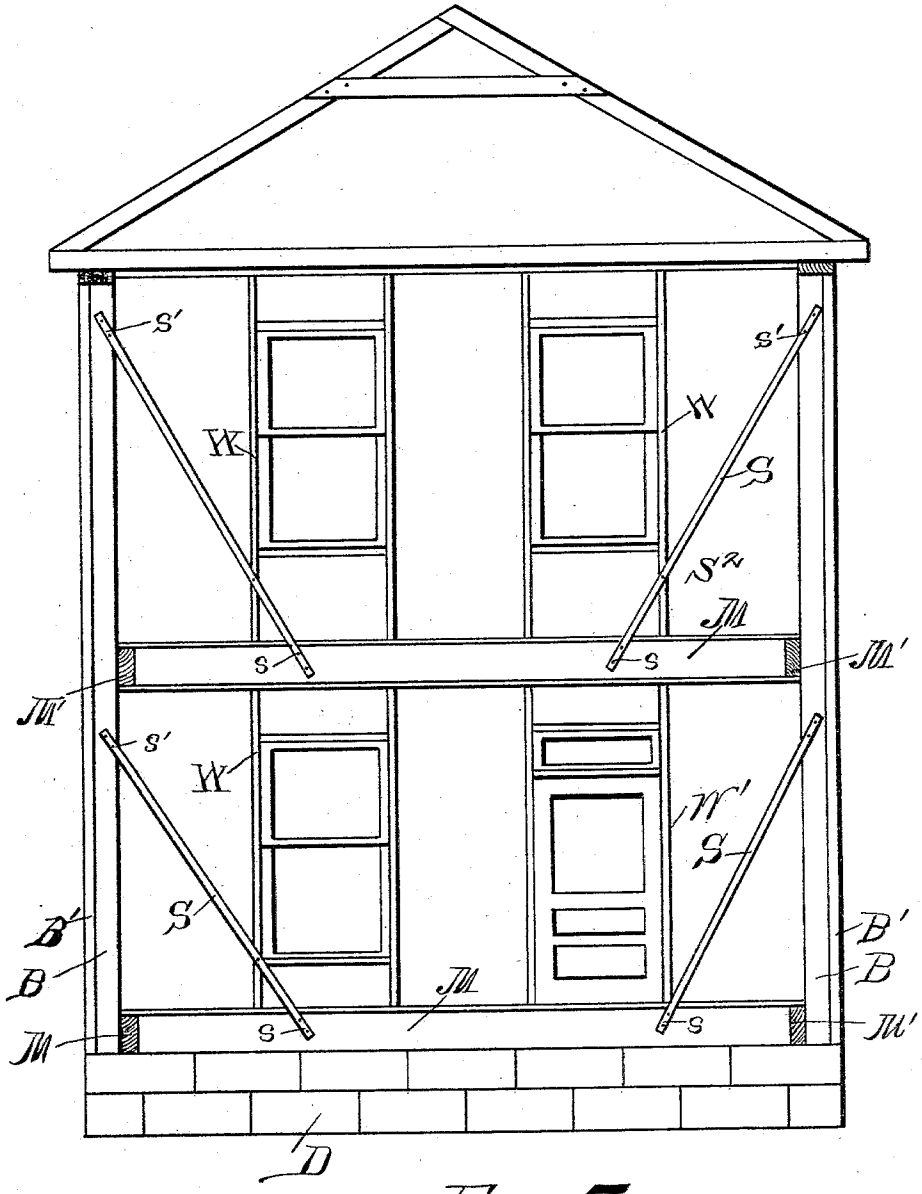

Fig. 5.

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UNITED STATES PATENT OFFICE.

WILLIAM M. IRELAND, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO JOSEPH W. IRELAND, OF QUINCY, ILLINOIS.

BUILDING STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 556,676, dated March 17, 1896.

Application filed October 24, 1895. Serial No. 566,725. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. IRELAND, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Building Structures; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in the construction of buildings, and has for its object the providing of a method whereby the brickwork of a building may be so combined with the woodwork thereof as to enable one to construct at a moderate cost a building possessing the qualities of neatness, durability and strength.

Referring to the drawings, Figure 1 represents a front elevation of a house constructed on my improved plan; Fig. 2, a detail view, partly in section, showing the relative positions of the joists, flooring, brickwork, and upright supports; Fig. 3, a plan of the house shown in Fig. 1 with roof removed. Fig. 4 is an enlarged view of one of the corners of the structure, partially in horizontal section, showing in detail the relative positions of the several parts of the structure; and Fig. 5 is a front elevation of the framing of a house constructed on my improved plans, showing the tie-rods in position.

Similar letters refer to similar parts throughout the several views.

D represents the foundation made of stone or any other material used for such purposes.

At each of the corners of the building I erect the uprights B, resting on the foundation and extending to the top of the building, said uprights being provided with the grooves *b* extending their entire length. The uprights are protected from the weather by the casing B′. (Shown in the detail view, Fig. 4.) Between the uprights situated at the several corners of the building I erect other uprights C of wood and also extending from the foundation to the top of the building and placed at intervals depending upon the size of the structure as well as upon the width of the window and door-frames, the windows and doors being arranged to come between the uprights. These uprights C are also provided with a groove *c*, which forms a receptacle for mortar, tending thereby to more solidly unite the wall with the uprights. The casing C′ protects the uprights from any deleterious external effects, said casing being made of wood, terra-cotta, metal or any suitable substance secured to the uprights and entirely covering them.

Commencing at the foundation I build a single-course brick wall between each of the uprights and break joints alternately.

The ground-floor joists, as shown in Fig. 2, rest upon the foundation and are spiked to the wooden uprights.

The upper-floor joists M′ are similarly spiked to the wooden uprights, as shown in Fig. 5. Now between the brick wall A and the plastering P is left an air-space R. At intervals between the brick wall and the plastering are inserted the furring-strips H, to which strips the laths L are nailed. The strips H′ in the corners fulfill the same function.

The plaster P is held on the laths after the ordinary fashion.

To more thoroughly strengthen the structure I make use of the tie-rods S. (Shown in Fig. 5.) These rods or braces are connected to the uprights, as at *s*′, and to the joists, as at S. They are also secured to the window-framing, as at S^2, but should a door be placed near a corner they are simply carried down and spiked to the joists, as shown at the door-facing W′.

The great saving of material at little or no loss in strength and durability is by no means a small factor among the many advantages possessed by such a structure as above described.

It is obvious that while I have described an extremely plain and simple structure for the sake of clearness my invention is adapted to buildings of almost any shape; and again, it is obvious that many modifications of the herein-described invention might be made which could be used without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a wall for buildings the combination of the uprights at the corners of said wall, adapted to rest upon the foundation and extend upward therefrom, a casing inclosing the said uprights, a series of uprights erected at intervals between the aforesaid corner uprights, a casing secured to the exterior of said uprights, and a single-course wall of brick or other material extending between the said uprights, substantially as described.

2. In a wall for buildings, the combination of the wooden uprights at the corners of said wall, adapted to rest upon the foundation and to extend upward therefrom, a casing inclosing said uprights, a series of wooden uprights erected at intervals between the aforesaid corner uprights, and also adapted to rest upon the foundation, a casing secured to the exterior of said uprights, a single-course wall of brick or other material erected between the aforesaid uprights, a series of furring-strips distributed along the inside of said wall, laths and plaster supported by said furring-strips, with an air-space between the brick wall and the said laths, substantially as described.

3. In a wall for buildings, the combination of the wooden uprights at the corners of said wall, adapted to rest upon the foundation and to extend to the top of the structure, a casing inclosing said uprights, a series of wooden uprights erected at intervals between the aforesaid corner uprights, and also adapted to rest upon the foundation and extend to the top of the structure, a casing secured to the exterior of said uprights, a single-course wall of brick or other material erected between all of the aforesaid uprights, said wall resting upon the foundation and extending to the top of the structure, a series of furring-strips distributed along the inside of said wall, the laths adapted to be secured to said furring-strips and laths and plaster supported by said furring-strips, substantially as described.

4. In an improved construction of buildings, the combination with a wall composed of corner uprights and uprights erected at intervals between said corner uprights, all of said uprights adapted to rest upon the foundation of the building, a casing secured to the exterior of each upright, and the intervals between said uprights being built up of a single-course wall of brick or other material; of a system of joists resting upon the foundation and secured to the uprights of the said wall, and a second system of joists also secured to the uprights of the aforesaid wall and adapted to support the flooring above the ground floor, substantially as described.

5. In an improvement in the construction of buildings, the combination with a wall composed of corner uprights and uprights erected at intervals between said corner uprights, all of said uprights adapted to rest upon the foundation of the building, a casing secured to the exterior of each upright, and the intervals between said uprights being built up of a single-course wall of brick or other material; of a system of joists resting upon the foundation and secured to the wooden uprights of said wall, a second system of joists also secured to the wooden uprights of the aforesaid wall and adapted to support the flooring above the ground floor, and a system of braces or tie-rods secured to the uprights of the aforesaid wall, and to the joists of the structure, substantially as and for the purposes described.

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

WILLIAM M. IRELAND.

Witnesses:
NICHOLAS SEIBEL,
TIMOTHY COLLINS.