

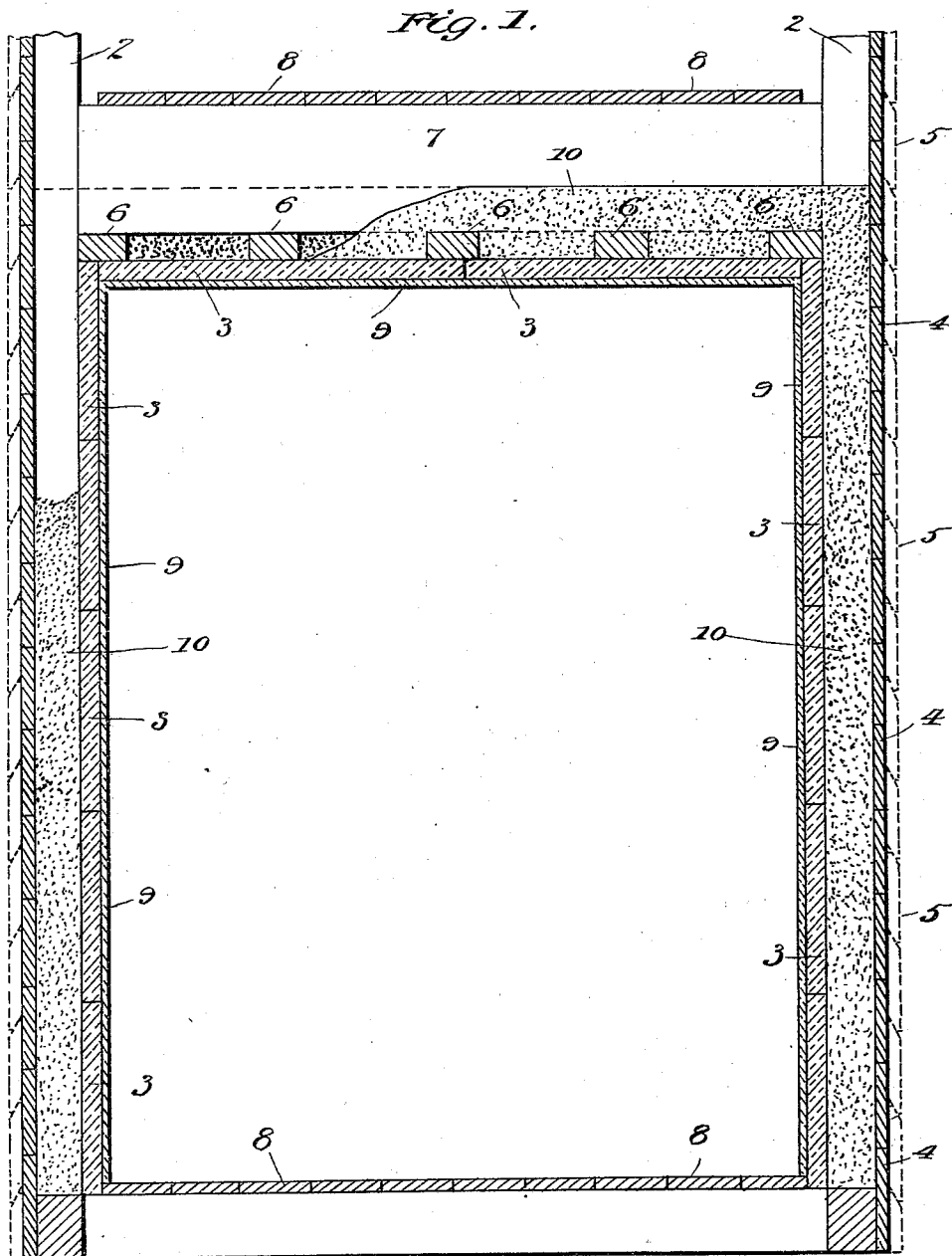
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3 Sheets—Sheet 1.

W. H. DENNEY.
WALL OR HOUSE CONSTRUCTION.

No. 553,483.

Patented Jan. 21, 1896.



WITNESSES:

William F. Foster
George R. Baldwin

INVENTOR

William H. Denney

BY

R. S. Morris
ATTORNEY

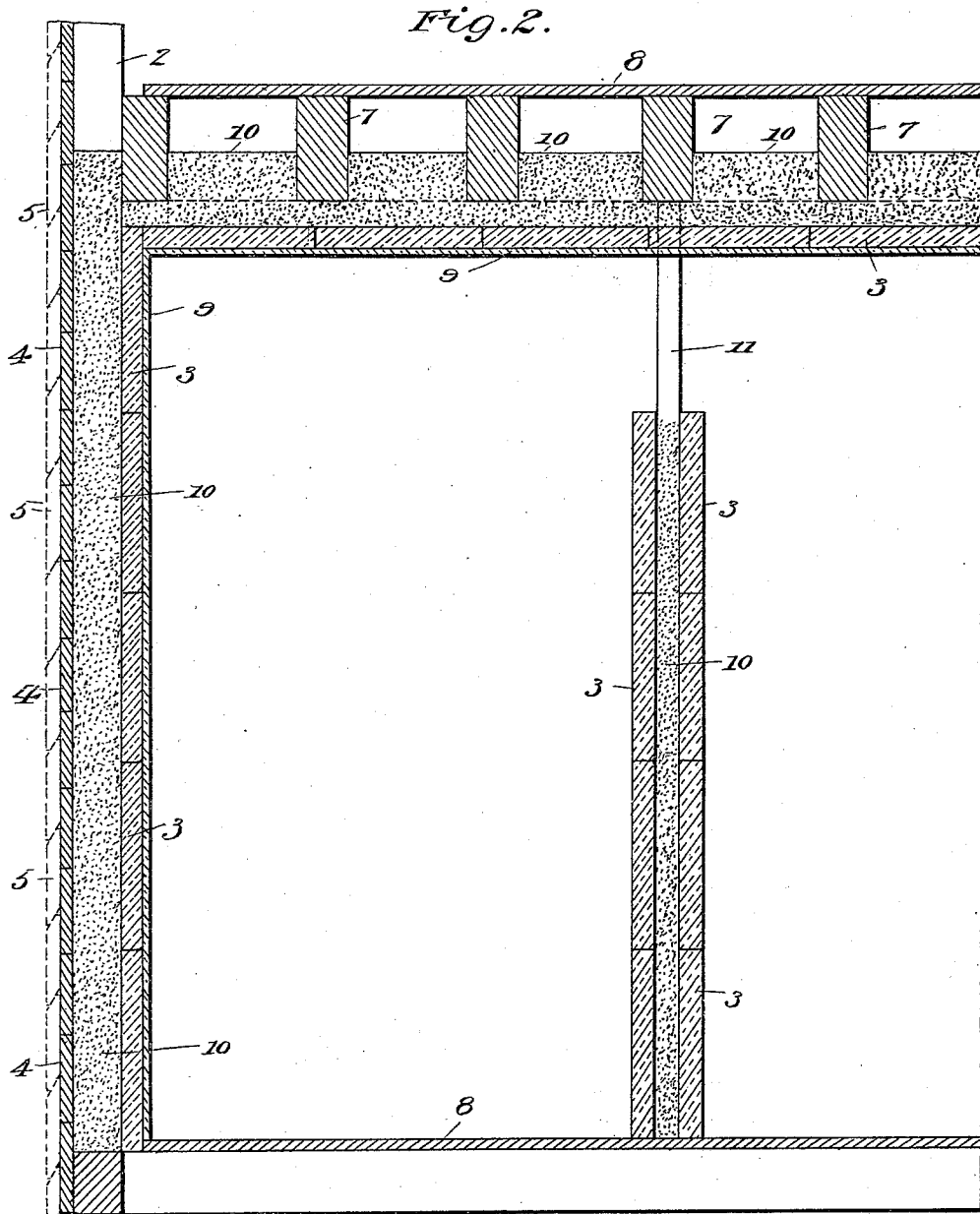
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WITNESSES:

William F. Brown,
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INVENTOR

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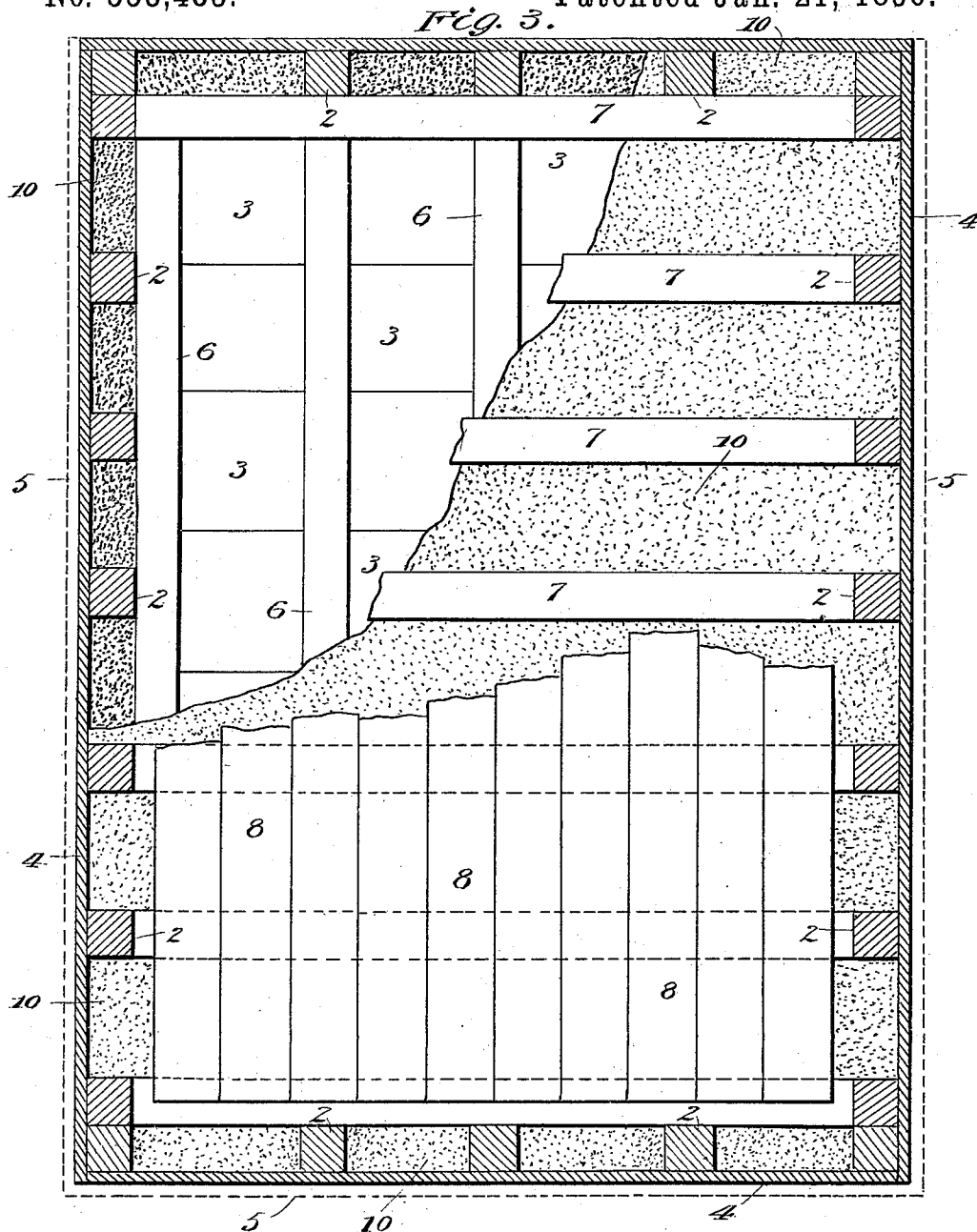
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WITNESSES:

Willis Forster
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INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM H. DENNEY, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
WILLIAM F. HULL, OF SAME PLACE.

WALL OR HOUSE CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 553,483, dated January 21, 1896.

Application filed July 3, 1895. Serial No. 554,828. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DENNEY, a citizen of the United States, residing at New York city, county and State of New York, have invented certain new and useful Improvements in Wall or House Construction, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The principal objects of my invention are to render fireproof and sound-proof the walls or ceilings of an ordinary house or building, prevent the plastered surface from cracking, and in the case of a frame house to make the same practically fireproof.

To these and other ends my invention consists in the various novel and peculiar arrangements and combinations of the several features of construction, all as hereinafter fully described and then pointed out in the claims.

I have illustrated a type of my invention in the accompanying drawings, wherein—

Figure 1 shows in section the walls and ceiling of a portion of a house provided with my improved construction; and Fig. 2 is a section of the same, taken on a plane at right angles to that of Fig. 1. Fig. 3 is a section of the same on a horizontal plane beneath the floor-level, a portion of the fireproof composition forming the backing or filling being broken away in order to show the cross furring-strips and the plaster-board of the ceiling.

Referring to the drawings, in which like numbers of reference indicate like parts throughout, 2 designates the ordinary studding or upright wooden beams, upon which are nailed or secured what is known as "plaster-boards," (indicated by the numeral 3,) and which generally consist of a mixture of plaster-of-paris and cocoanut fiber, or other suitable material. Upon the outer sides or faces of the studding 2 2 are secured the ordinary wooden sheathing or planking 4 4, and to which are applied the usual clap-boards or shingles 5 5. (Shown in dotted lines.)

The plaster-boards 3 3 covering the ceiling

are nailed directly to the usual cross furring-strips 6, which are used for leveling the ceiling, such strips being nailed across the lower edges of the joists 7, upon which is placed the flooring 8. A coat of ordinary plaster 9 covers the surface of the plaster-boards to finish the surface of the wall or ceiling and this completes the ordinary construction used in the art prior to my invention.

Now the principal feature of my invention consists in the fireproof backing or filling composition 10, which is made of any suitable coarse refractory material mixed with cement or mortar. A very good mixture can be made of from about five to seven parts of ordinary coal-ashes and one part of plaster-of-paris or Windsor cement. Of course any other suitable materials may be substituted than the ones named, the idea being to have a suitable fireproof composition or mixture which can in a plastic state be applied to the backs or interior surface of the plaster-boards, so as to adhere thereto or unite with it when it solidifies and becomes set.

In practice I usually pour in the plastic filling material or backing from the floor above after all the plaster-boards have been put in place. This fills up solidly the space between the plaster-boards 3, the sheathing 4 and the studding 2. After the side walls are thus filled I pour in a sufficient quantity above the plaster-boards forming the ceiling to entirely embed the cross furring-strips 6 and so as to come a slight distance up along the joists, as shown in the figures. Of course the space may be filled up to the floor-level, if desired, but I do not find this to be necessary, since by partially filling the space above the ceiling the structure is rendered practically fire-proof and also produces a perfect deafening effect. The filling - composition when thus applied unites with the plaster-board and forms a solid body therewith and prevents the same from moving out of place or cracking, so that the ordinary plastered surface 9 is kept in perfect condition and free from cracks.

In applying my invention to a partition I use the ordinary studding 11 11, Fig. 2, and upon each broad side of the same I secure the plaster-board 3, and the interspace is then

filled with the fireproof composition 10 in plastic state. When the filling becomes hardened, it unites with the plaster-board upon each side of it and forms a practically solid
5 body. A partition made in this way occupies but little space and at the same time is sufficiently stable and firm for all practical purposes. Moreover, it is fireproof and little or no sound will be transmitted through it.

10 By the use of my invention an ordinary frame house in which plaster-boards are used instead of the usual lathing can be rendered practically fireproof, and moreover it serves to make a tighter and hence warmer structure,
15 since the filling-composition forms, together with the plaster-boards, a solid body or shell through which the air cannot well pass.

Another important advantage derived from
20 the use of my invention is the practical exclusion of vermin from the structure.

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

25 1. An improved construction for a house, wall or the like, the same consisting in a frame or uprights having a layer of plaster-board secured to and covering one side thereof, and a layer of wooden-board or the like or plaster-

board applied to and covering the other side 30 thereof, said plaster-board having its outer face covered or finished with an ordinary coat of plaster, and a fire-proof composition filling the intermediate space and adhering or cemented to said plaster-board so as to form 35 practically a solid mass therewith.

2. An improved house construction, the same consisting in the combination of the ordinary side walls of a room having an interior layer of plaster-board and an exterior layer 40 of wood or planking with intermediate studing, the ordinary ceiling having a layer of plaster-board and joists, and a fire-proof composition 10 filling the entire space between the said plaster-board and wooden layer of 45 the walls and partially embedding the joists or beams of the ceiling and cemented to the plaster-board so as to form practically a solid body therewith, substantially as and for the purpose set forth. 50

In testimony whereof I have hereunto set my hand, this 29th day of June, 1895, in the presence of two subscribing witnesses.

WILLIAM H. DENNEY.

Witnesses:

GEORGE R. BALDWIN,
WILLIS FOWLER.