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A. GROUNDMAN.  
WALL AND CEILING CONSTRUCTION.  
FILED NOV. 30, 1921.

Fig. 1.

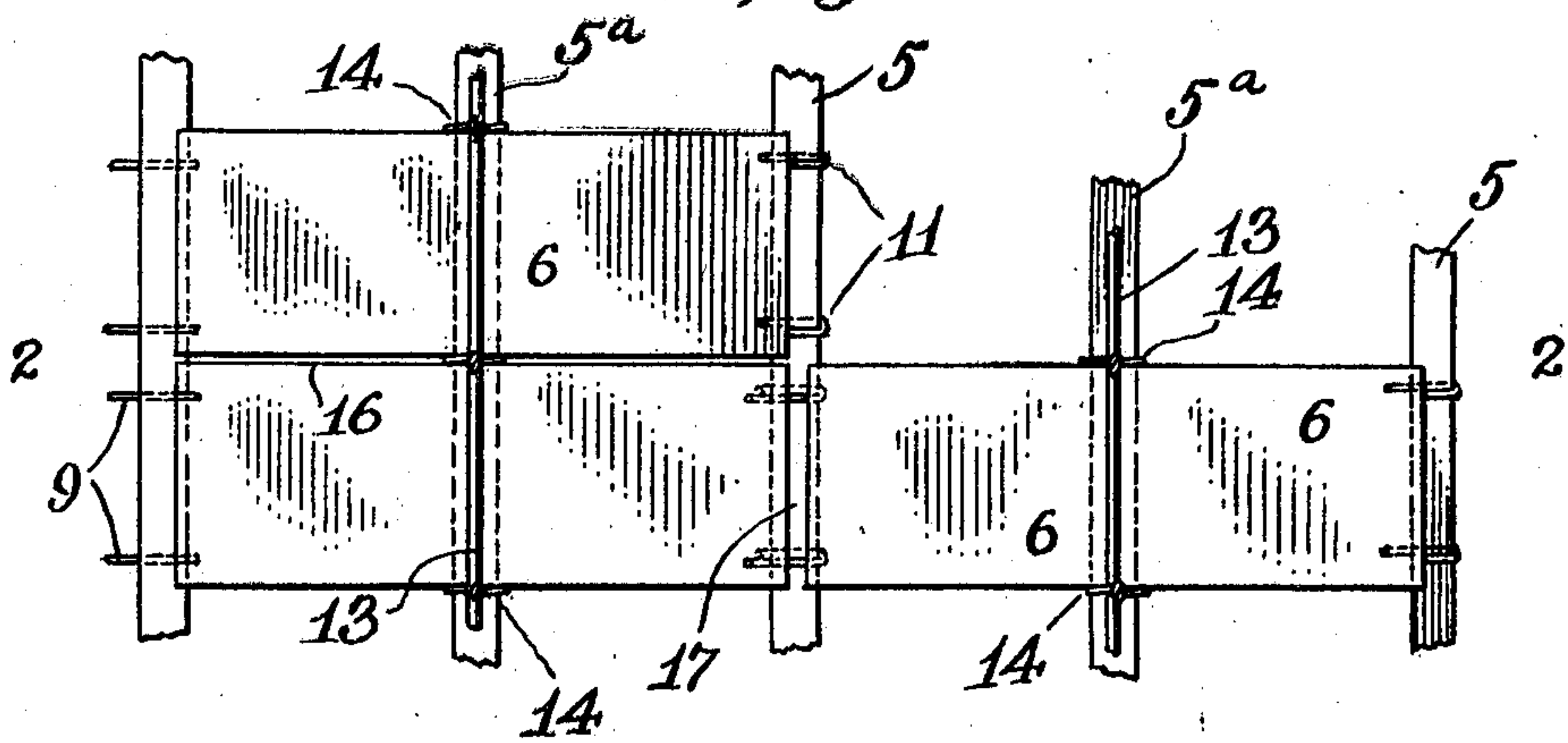


Fig. 2.

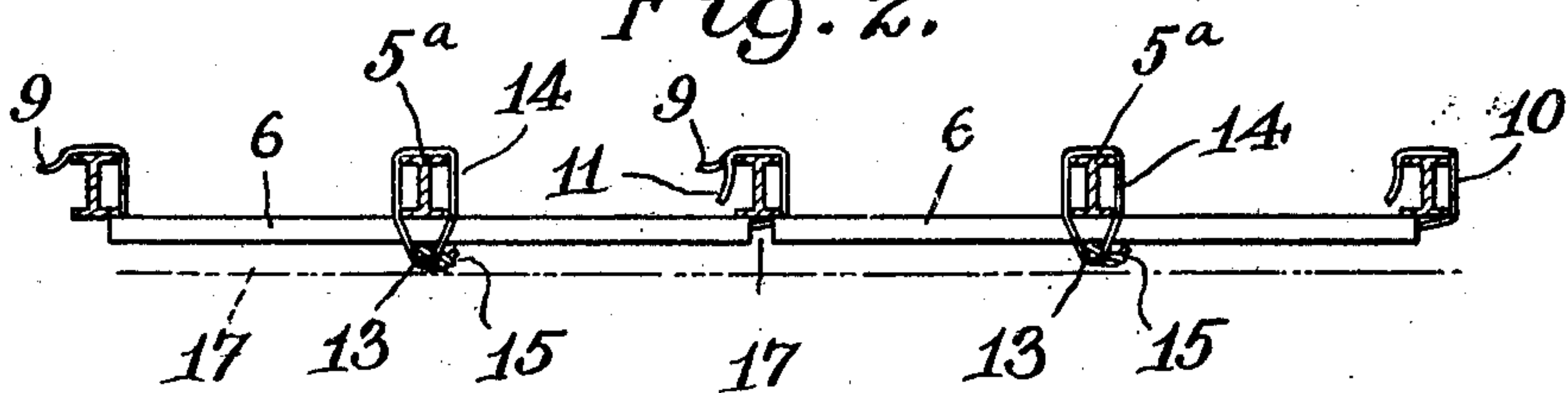
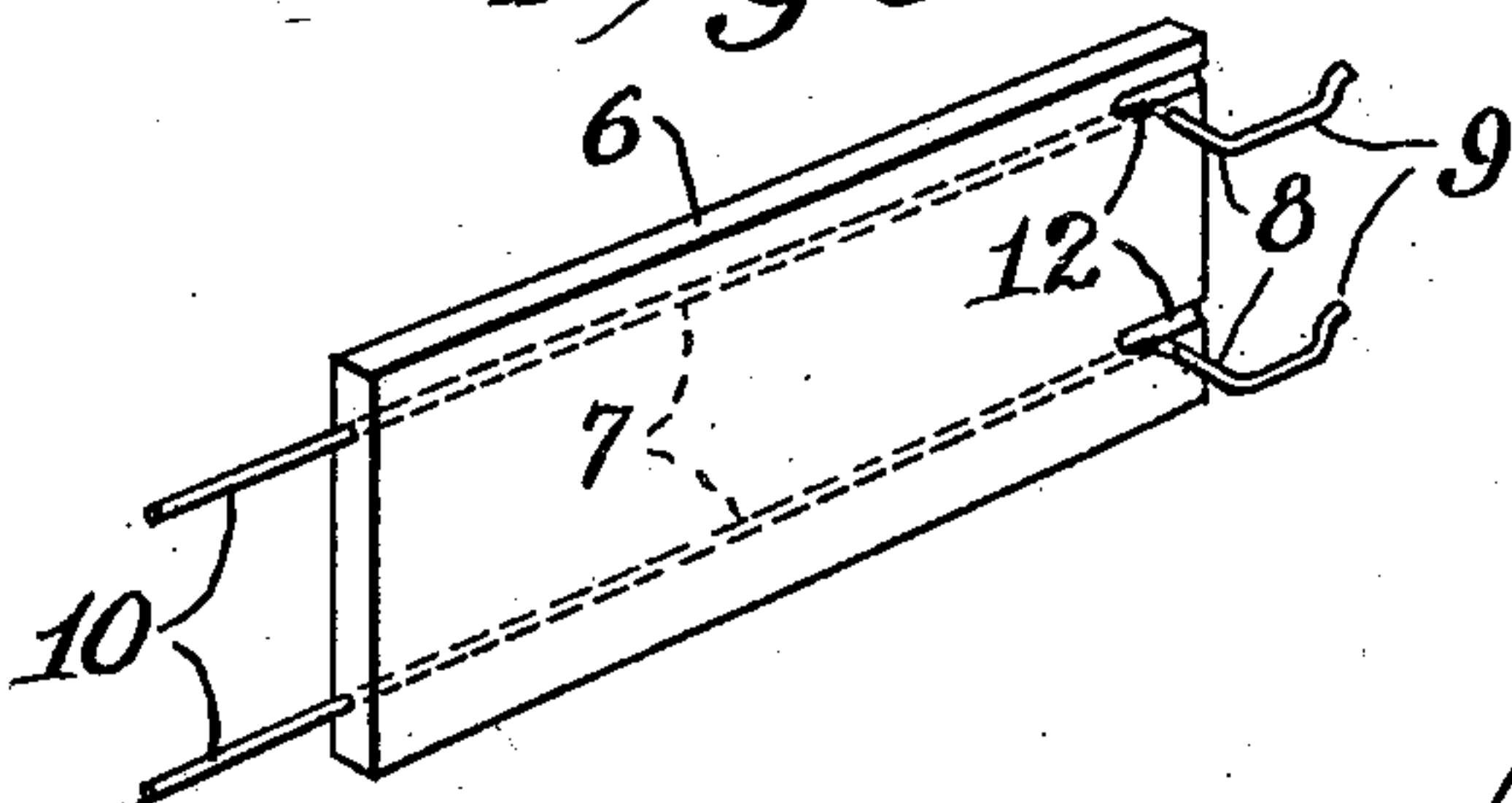


Fig. 3.



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# UNITED STATES PATENT OFFICE.

AUGUSTUS GROUNDMAN, OF NEW YORK, N. Y.

WALL AND CEILING CONSTRUCTION.

Application filed November 30, 1921. Serial No. 518,779.

*To all whom it may concern:*

Be it known that I, AUGUSTUS GROUNDMAN, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Wall and Ceiling Constructions, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to partition wall and ceiling constructions for dwellings, apartment houses and similar buildings, and the object of the invention consists in providing an improved composition board or boards provided with reinforcing wires or rods which are mounted therein and extend through the ends of said board or boards by means of which said boards are mounted in connection with suitable supports in forming the framework or body portion of a wall or ceiling construction; a further object being to provide improved means for supporting and spacing said boards in connection with their supports; and with these and other objects in view the invention consists in a wall or ceiling construction of the class and for the purpose specified which is simple in construction and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a diagrammatic view showing a part of a wall or ceiling constructed according to my invention;

Fig. 2 a partial section on the line 2—2 of Fig. 1; and,

Fig. 3 a perspective view of one of the composition boards which I employ.

In Figs. 1 and 2 of the drawing I have indicated at 5 a number of studs or other frame members of a wall or ceiling of any kind with which my improved composition board 6 is adapted to be mounted. In Fig. 3 I have shown one of the boards 6 in detail, said boards are composed of any suitable composition material, such as concrete, cement or the like and are provided with

reinforcing rods 7 which are imbedded therein and extend longitudinally thereof, said rods at one end of the board passing outwardly through the back of the board as shown at 8 and fashioned into approximately hook-shaped form as indicated at 9 to engage the studs 5, as hereinafter described, and the other ends of the rods 7 extend through the ends of the board 6 as shown at 10 and are adapted to be wrapped around the studs 5 as hereinafter set out.

In mounting the boards 6 in connection with the studs 5, the end portion of one of the boards 6 is provided with hook-shaped members 9 and is engaged with one of the studs by passing said hook-shaped members in back of one of the studs 5, as shown at the left of Fig. 2, and the other ends of the rod 7 of said board are wrapped around another of the studs 5 as shown at 11 in Fig. 2 of the drawing, and in placing or securing another board 6 to the last named stud or at one side of the first named board as shown in Figs. 1 and 2, the hook-shaped members 9 of said last named board are passed around said last named stud and the ends 10 of the rods of the first named board are passed into recesses or grooves 12 in the back face of the last named board, or said board is so mounted that the ends 10 of the rods of the first named board will enter said grooves or recesses 12.

The boards 6 are of such length as to extend from one stud to the second stud therefrom to provide a stud which is located centrally of the boards, as for example, the studs 5<sup>a</sup> in Figs. 1 and 2 of the drawing, and the boards 6 are reinforced and supported centrally thereof and also spaced on the studs by rods or heavy wires 13 which are mounted on the outer faces of the boards 6 centrally of the studs 5<sup>a</sup> and tie wires 14 are passed around the studs 5<sup>a</sup> above and below the boards 6, as clearly shown in Fig. 1 of the drawing, and said wires are twisted together as shown at 15 to securely hold the rods 13 in position and to provide a space 16 between the side faces of the boards 6 when placed one upon another.

It will be understood that in forming the complete wall or ceiling construction a fac-



ing of plaster or other material 17 indicated in dotted lines in Fig. 2 of the drawing is placed over the boards 6, and this material extends into the spaces 16 between the side portions of the boards 6 and also in spaces 17 between the adjacent ends of said boards.

Heretofore it has been customary and essential to tie both end portions of the reinforcing rods or wires of boards of this class to the studs or other supports, but with my construction the boards, or the reinforcing rods or wires thereof, are hook-shaped in form at one end and are so fashioned as to engage one of the studs, and the other ends of said reinforcing wires or rods are wrapped around the studs, and by means of the rods or wires 13 and tie wires 14 the central portions of the boards are reinforced, spaced and supported in connection with the studs or other supports for such boards, but while I have shown certain details of construction for carrying my invention into effect, it will be understood that I am not necessarily limited to these details, and changes therein and modifications thereof may be made, within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A wall or ceiling construction of the class described composed of a plurality of composition boards mounted in connection with studs or other supports, said boards being provided with reinforcing rods which extend longitudinally therethrough and project at the opposite ends of said boards, said rods at one end of the boards being hook-shaped in form to engage predetermined studs or other supports and the other ends of said rods being of sufficient length to permit of their passage around other studs or other supports, and reinforcing rods mounted on the outer central faces of said boards and extending longitudinally of intermediate studs or supports to reinforce the central portion of said boards.

2. A wall or ceiling construction of the class described composed of a plurality of composition boards mounted in connection with studs or other supports, said boards being provided with reinforcing rods which extend longitudinally therethrough and project at the opposite ends of said boards, said rods at one end of the boards being hook-shaped in form to engage predetermined studs or other supports and the other ends of said rods being of sufficient length to permit of their passage around other studs or supports, reinforcing rods mounted on the outer central faces of said boards and extending longitudinally of intermediate studs or supports to reinforce the central portion

of said boards, and means for securing said last named rods to said studs or supports.

3. A wall or ceiling construction of the class described composed of a plurality of composition boards mounted in connection with studs or other supports, said boards being provided with reinforcing rods which extend longitudinally therethrough and project at the opposite ends of said boards, said rods at one end of the boards being hook-shaped in form to engage predetermined studs or other supports and the other ends of said rods being of sufficient length to permit of their passage around other studs or supports, and reinforcing rods mounted on the outer central faces of said boards and extending longitudinally of intermediate studs or supports to reinforce the central portion of said boards, and means for securing said last named rods to said studs or supports, said means being located between the adjacent side faces of the boards and serving to space said boards one from another.

4. A wall or ceiling construction of the class described composed of a plurality of composition boards mounted in connection with studs or other supports, said boards being provided with reinforcing rods which extend longitudinally therethrough and project at the opposite ends of said boards, said rods at one end of the boards being hook-shaped in form to engage predetermined studs or other supports and the other ends of said rods being of sufficient length to permit of their passage around other studs or supports, reinforcing rods mounted on the outer central faces of said boards and extending longitudinally of other studs or supports to reinforce the central portion of said boards, and wires adapted to be passed around said studs and said last named reinforcing rods between the adjacent side faces of said boards for securing said rods to said studs and for spacing said boards one from another.

5. A composition board for forming wall and ceiling constructions of the class described, said board being provided with reinforcing wires which are imbedded therein, said wires at one end of the board extending outwardly through the back thereof and being fashioned to substantially hook-shaped formation and the other ends of said wires extending through the other end of said board.

6. A composition board for forming wall and ceiling constructions of the class described, said board being provided with reinforcing wires which are imbedded therein, said wires at one end of the board extending outwardly through the back thereof and being fashioned to substantially hook-shaped formation and the other ends of said wires extending through the other end of said board, and the first named end portion of the



board being provided in the back face thereof and in juxtaposition to the wires which extend therethrough with grooves.

7. A composition board of the class described, said board being provided with reinforcing rods which extend longitudinally therethrough and imbedded therein and which extend outwardly through the oppo-

site ends of the board, the rods at one end of the board extending laterally therethrough 10 and being fashioned into hook-shaped form.

In testimony that I claim the foregoing as my invention I have signed my name this 28th day of November 1921.

AUGUSTUS GROUNDMAN.