

G. H. METZER.
CONSTRUCTION OF TILED WALLS, CEILINGS, AND THE LIKE.
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963,456.

Patented July 5, 1910.

2 SHEETS—SHEET 1.

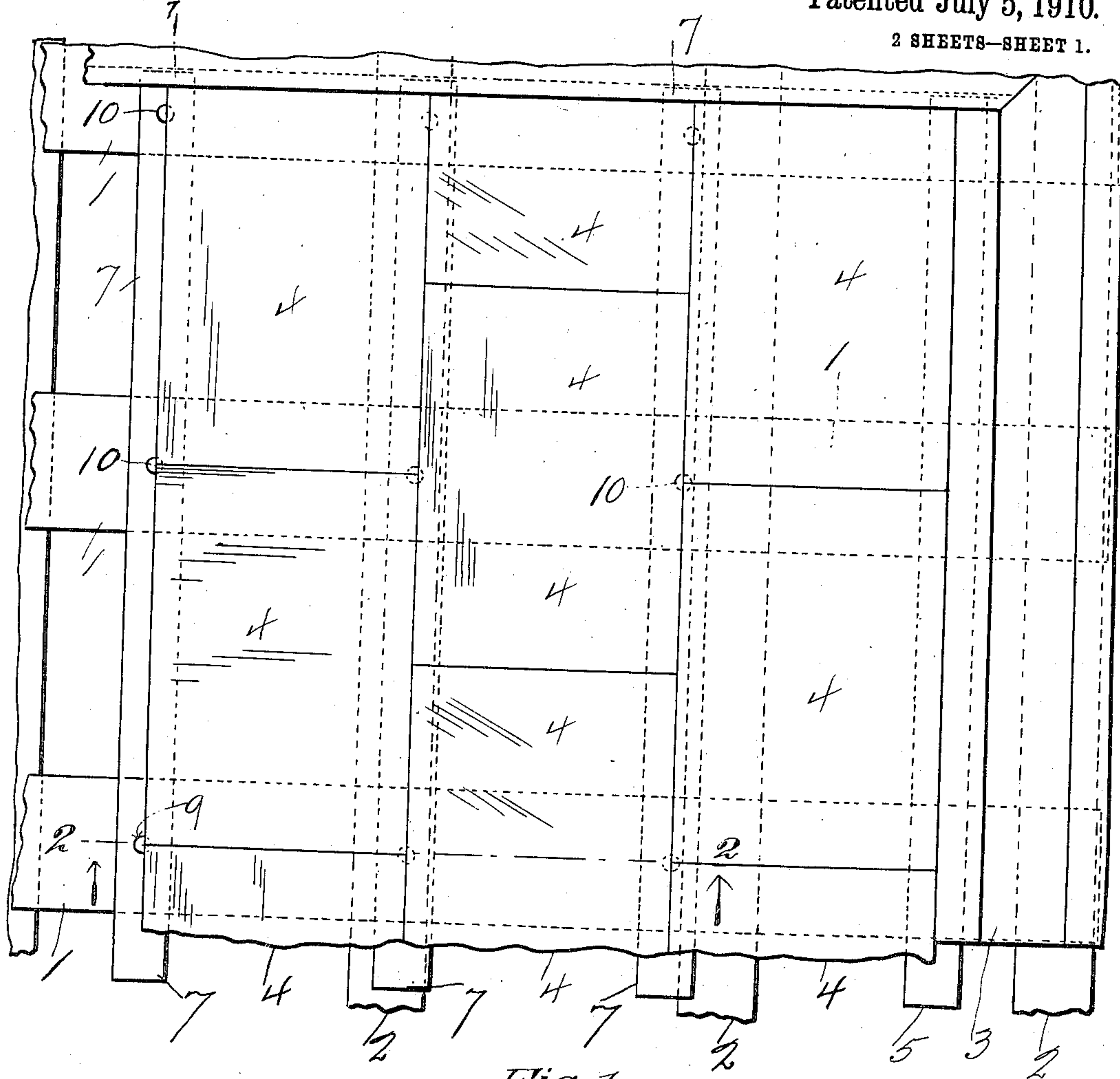


Fig. 1.

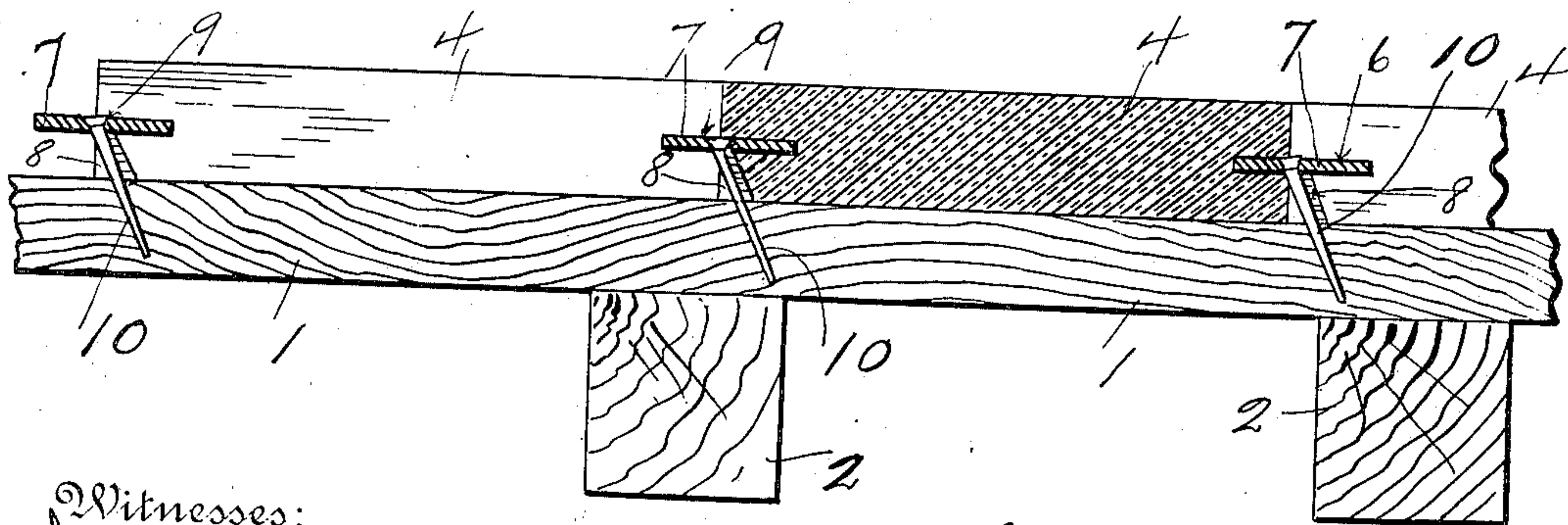
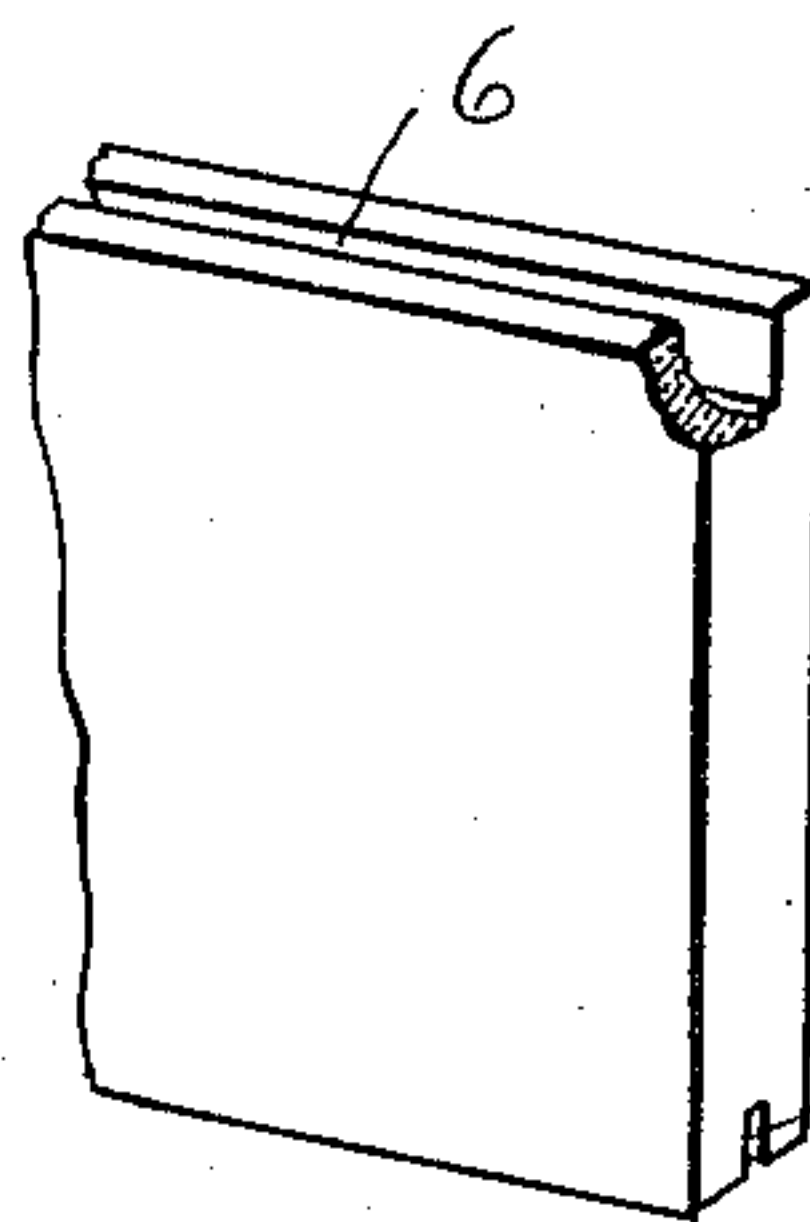
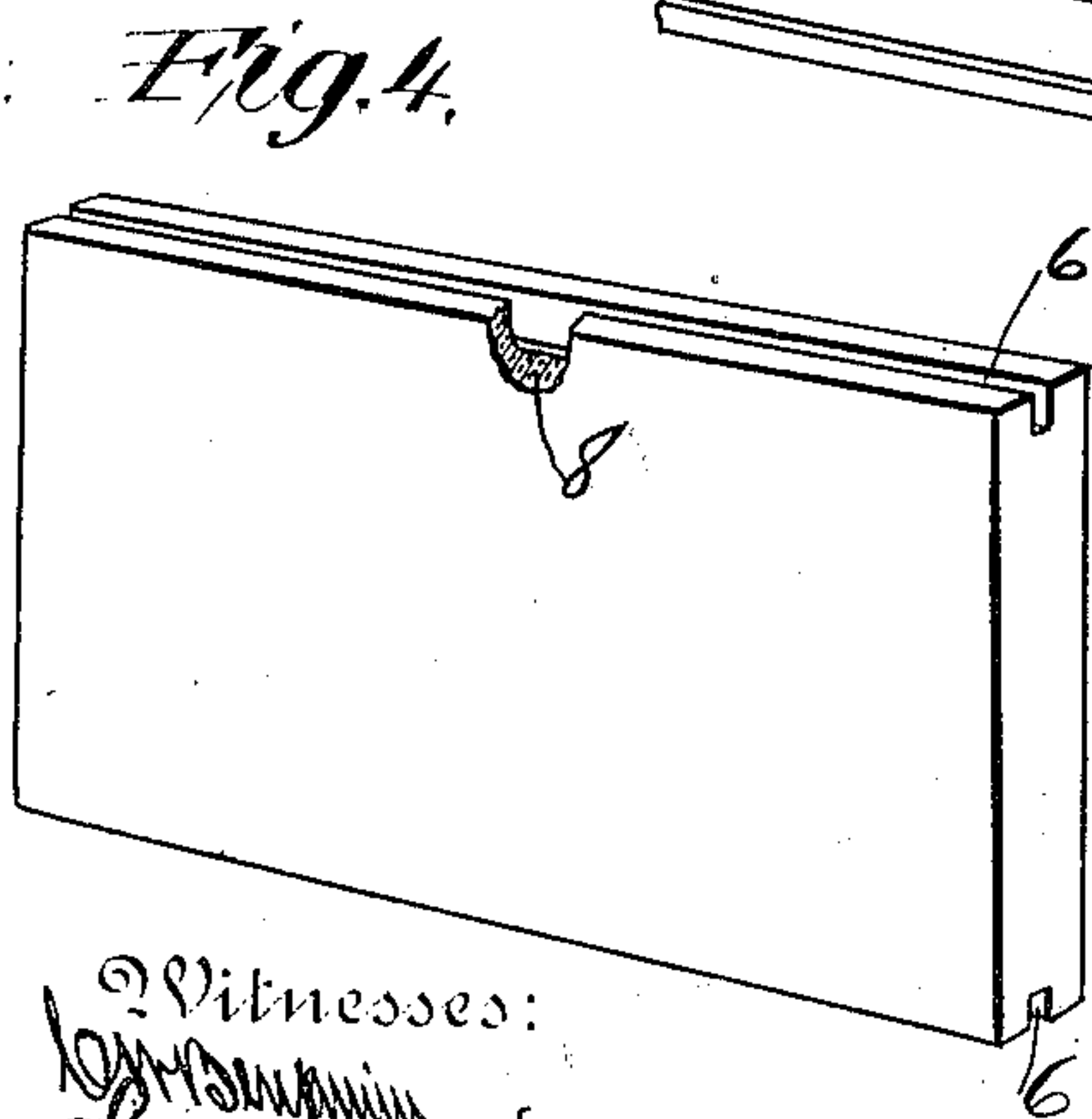
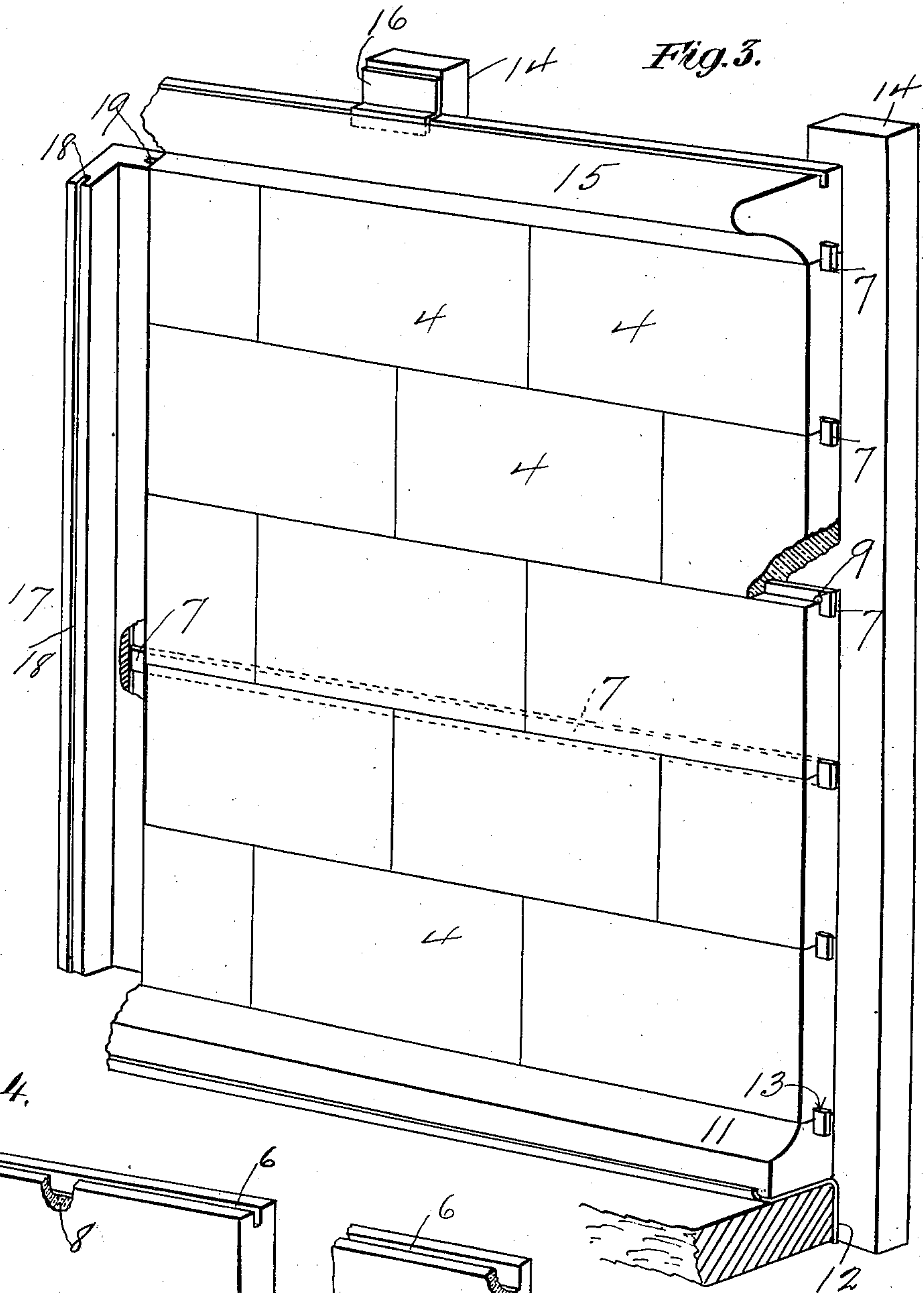


Fig. 2.

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Fig. 5.
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UNITED STATES PATENT OFFICE.

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CONSTRUCTION OF TILED WALLS, CEILINGS, AND THE LIKE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE H. METZER, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in the Construction of Tiled Walls, Ceilings, and the Like, of which the following is a specification.

My invention relates to improvements in the construction of tiled walls, ceilings and in fact to all inclosing means, wherein tiles are used for decorative or protective purposes.

Heretofore it has been customary to first apply a foundation coating of cement upon the laths on the beams of the ceilings or the studding of the wall or other elements of the foundation structure, for the tiles, which latter are then secured in place, and held by the cement. In such constructions it is difficult to secure the tiles evenly and regular, the cement foundation is uncertain and the tiles work loose and are displaced and the application of the tiling requires the employment of skilled labor. The time necessary for tiling in a large structure is considerable and the cost is great. It is necessary when tiling new structures to first place the holding cement and when a wall already coated with finishing plaster is to be tiled it is necessary to first remove the plaster before starting to tile the wall.

The object of my invention is to simplify the construction so that the wall, ceiling or other structure may be tiled whether or not there is a finishing plaster on the wall, either the entire extent of the wall or a portion being covered. By a very simple construction I am able to secure the tiling to the foundation, whether it be the beams, furring strips, or studdings, by metal strips which are nailed to the foundation, thereby making the cementing of the tiling unnecessary, and in such a way that the tiles will be interlocked by the holding strips and will be more perfectly forced into proper contact with each other. The securing of the tiles is so simple that skilled labor may be entirely eliminated and the cost of the structure is otherwise reduced in addition to the saving of much time in applying the tiling.

A detailed description of one embodiment of my invention will more fully appear hereinafter.

In the drawings forming a part of this application, Figure 1 is a plan view of my

improvements as the same is used upon a ceiling, Fig. 2 is a cross section of the same taken on the line 2—2 of Fig. 1, Fig. 3 is a perspective view of my invention as it is applied to wall construction, Fig. 4 is a perspective view of one of the tiles, and Fig. 5 is a similar view showing how the notch in the tile may be located in a different place to suit the requirements.

Usually when constructing new buildings the tiler starts in where the carpenter leaves off so that the tiler finds a wooden foundation with which to begin his work. Referring to Fig. 1 it will be seen that the usual ceiling beams 1, have been connected across by furring strips 2, which I prefer to use for the purpose of securing the tiling, since they may be placed nearer together than the beams, although any primary structure may be utilized for the foundation so long as the same is of wood or other material into which a nail or the like may be driven. When a border molding 3 is provided I start by placing a row of tiles 4 against the edge of the border molding after having forced a flat metallic interlocking strip 5 into a groove in the molding. The strip 5, likewise engages in a groove 6 in the tiles so that the first row of tiles and the molding are interlocked by the metallic or other holding strip 5. Having placed this first row of tiles I then add row after row until the tiles cover the entire ceiling. The form of the tiles here used is shown in Figs. 4 and 5 and consist of a preferably rectangular body which may have a decorated or plain outer surface or may have embossed surfaces to suit the taste; and along each side edge of the tile are grooves 6, corresponding in width with the thickness of the binding strips 7. On one edge of the tile I provide one or more notches 8 which run from the groove 6 through to the back of the tile, thus destroying at that point one of the flanges which defines the groove. As shown in Fig. 4 this notch may be about midway of the ends of the tile or it may come at the end as shown in Fig. 5, the particular location depending upon the length of the tiles and the distance between the furring strips or other ceiling foundation, to which the tiling is to be secured. The binding strips 7 which are preferably flat and of metal are provided along their length with holes 9 for the passage thereof of nails, the holes being spaced apart to correspond with the spacing of the

furring strips or other elements to which the tiles are secured and these binding strips are preferably long enough to extend the entire width of the space being tiled. In the case of the ceiling, as shown, these strips are long enough to extend the width of the ceiling. After the first row has been placed as described, one of the binding strips 7 is pressed into the alining grooves on the free side of the tiles of the first row and so that the holes 9 of the binding strip come over the furring strips 2. Nails 10 or other securing elements are driven through the holes 9 into the furring strips at an angle so that they are driven so as to force the binding strip into the grooves of the tiles and force the tiles of the several rows into very close contact. The cut out portion 8 of the tile permits the nail to be driven at an angle. Another row of tiles is then placed into position by placing them against the last row with that part of the binding strip which was left projecting beyond the edge of the previous row of tiles entering the grooves of the newly placed row. The previous action is then repeated by nailing another binding strip and this action is carried on until the ceiling has been tiled. When completed the tiles will fit tightly against each other and the binding strip will be inclosed in the grooves of the tiles and be hidden from sight.

If the ceiling were previously finished with a plaster covering such as is commonly used it is not necessary to remove the plaster as in that case, when the wooden structure beneath the plaster is located, the nails for the binding strips are driven through the plaster and into the wooden structure of the ceiling, the tiles in such case resting against the face of the plaster instead of directly against the wooden structure. In this way any ceiling or wall may be provided with the tiling very readily and inexpensively.

When a wall is provided with the tiling as shown in Fig. 3, I first provide a bed 11, which is secured to the wall against the floor and between the floor and bed I provide a metallic plate 12. This bed is provided with a groove 13 corresponding to the grooves of the tilings and into this groove is placed one of the binding strips, leaving a portion of the width of the strip projecting for the engagement of the first row of tiles. A row of tiles is then placed edgewise against the base so that their grooves receive the projecting portion of the binding strip, the latter having been first nailed to the upright wall members, as in the ceiling structure. In this case the nails are preferably driven into the studdings 14 which in wall constructions are usually placed at regular intervals throughout the wall. The tiling is continued, row after row in the same manner until the entire wall is covered or

until a portion sufficient to form a wainscoting has been covered, when a rail 15 with a grooved edge is placed against the top row of tiles and is nailed to the studdings preferably by short strips 16 which engage in the groove of the rail and are nailed to the studdings.

When a corner is to be finished, as where two walls or a wall and ceiling meet, I use a novel corner strip as shown in Fig. 3. This strip 17, is adapted to be placed in the corner formed by the intersection of two lots of tiling which come together from different planes, usually at right angles to each other, and this strip is formed plain or ornamental and may be varied in shape. It is disposed transversely across the ends of the rows of one set of tiles when a corner has been reached. It is provided with grooves 18 and 19 on its angularly disposed edges, which, when the angle of the walls is a right angle these grooves are at right angles to each other, so that one will be in the plane of the binding strip 7 of one set of tiles, while the other will be in the plane of the strips of the tiles on the adjoining wall. When a corner is reached as shown in Fig. 3, the strip is placed as there shown, with the strips 7 extending into the groove 19. The tiles are then placed along the wall which meets the first wall at an angle, and the binding strips of these tiles are extended into the groove 18. This makes a good simple joint which is easily made and the binding strips of the various tiles prevent the corner strip from being dislocated.

I do not wish to be limited to the precise details as herein described and especially to the use of the invention upon studdings or furring strips as the same may be utilized upon whatever element forms the foundation of the wall or ceiling, or upon such structure as may be added thereto. Furthermore I do not wish to be limited in my invention to walls and ceilings as the same may be advantageously used for flooring.

From the above it will be apparent that the time required to tile a wall is greatly reduced and the cost is much less and the work may be done by almost anyone.

Having described my invention what I claim is:

1. In a tiling construction for walls, ceilings, and the like, a foundation structure, a plurality of tiles having grooved edges and provided with notches 8 formed by interrupting a portion of the rear groove forming flange, and a binding strip engaging in the grooves of abutting tiles, said binding strip being secured by nails driven there-through at the notches 8, and into the foundation structure, at an angle, whereby the tiles will be secured to the foundation structure and close against each other.

2. In a tiling construction for walls, ceil-

ings and the like, a plurality of studdings, a plurality of tiles arranged in rows, having grooved edges and provided with notches formed by interrupting a portion of the rear flange which defines said groove and a binding strip arranged transversely across a plurality of said studdings, said binding strip engaging in the grooves of abutting tiles, and common to a plurality of tiles of a row, said binding strip being secured to the studdings by nails or the like driven through the strip at the said notches in the tiles, at an angle.

3. In a tiling construction, a foundation structure, formed with elements disposed in planes which meet at an angle, a plurality of rows of tiles secured to the foundation structure by binding strips which are secured to the foundation structure and a corner strip at the angular line of juncture of the planes of the tiles, which corner strip

is provided with grooves disposed in the planes of the several binding strips and which receive the ends of the binding strips.

4. In a tiling construction, a foundation structure comprising a plurality of walls including studdings and having an angular meeting line, a plurality of rows of tiles provided with grooves in their edges, binding strips extending across the studdings and engaging in the grooves of the tiles of adjoining rows, said binding strips being secured to studdings and a corner strip having grooves disposed at an angle to each other and receiving the ends of the binding strips in the adjoining walls.

Signed this 1st day of July, 1909.

GEO. H. METZER.

Witnesses:

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