April 8, 1930. G. R. WALPER 1,754,215

WALL OR CEILING CONSTRUCTION

Filed Feb. 11, 1929

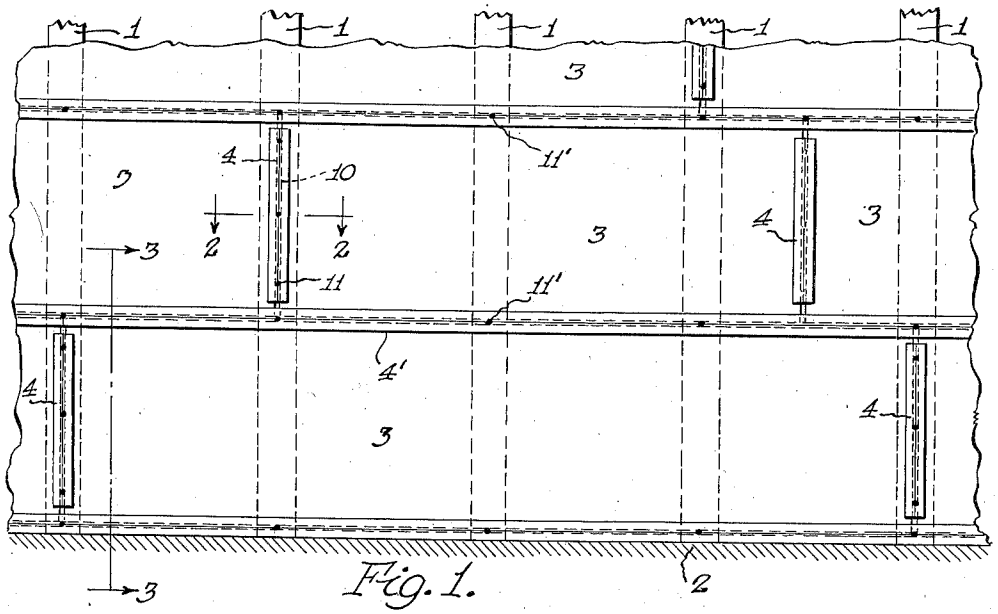


Fig. 1.

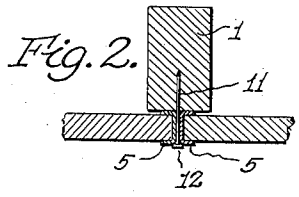


Fig. 2.

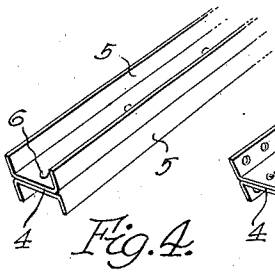


Fig. 4.

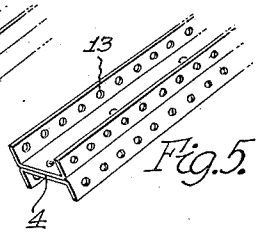


Fig. 5.

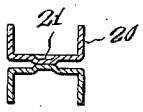


Fig. 7.

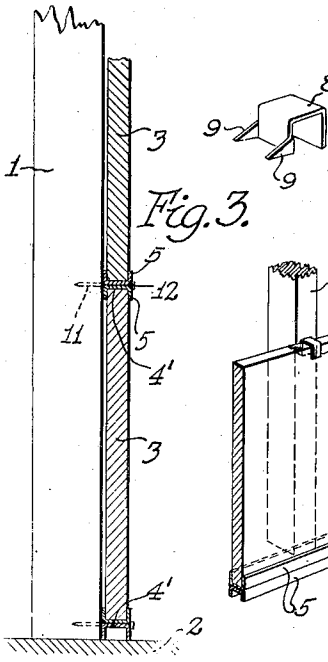


Fig. 3.

Fig. 9.

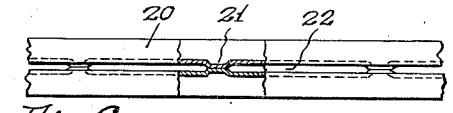


Fig. 6.

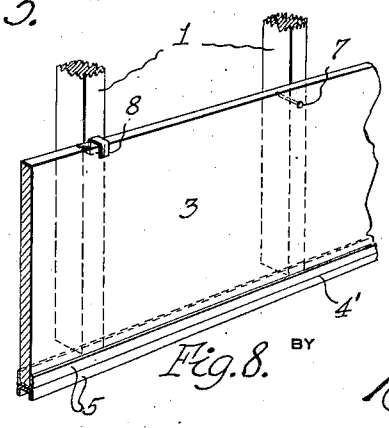


Fig. 8.

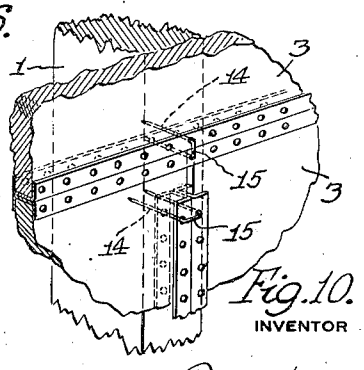


Fig. 10.

INVENTOR

Gordon R. Walper,

BY

ATTORNEYS

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UNITED STATES PATENT OFFICE

GORDON B. WALPER, OF ROYAL OAK, MICHIGAN

WALL OR CEILING CONSTRUCTION

Application filed February 11, 1929. Serial No. 338,913.

The present invention pertains to a novel wall or ceiling construction comprised of plaster boards or the like and having novel means for supporting the edges of the boards and retaining them against the framing of a building.

Hitherto the edges of the boards have been received in separate channel members which have been held to the studding by means of clips having frictional engagement with the studding. The present invention involves the use of double channel members or H-sections which require less time in handling and erection than do the separate channel members. Consequently, a different means for holding the double channel members to the studding must be provided, and such is the principal object of this invention.

In its simplest and preferred embodiment, this invention involves the use of headed nails driven between the backs of the channels which constitute the H-sections, and driven into the studding so that the heads of the nails overlap and bear against the exposed sides of both channels of the H-section. In another embodiment, the sides of the channels are perforated to anchor the covering plaster at the joints, and staples are driven through the perforations in a manner to bridge the joint.

Another object of the invention is to provide an effective means for preventing the wall or ceiling from warping or weaving. This means consists in securing each of the H-sections to at least three of the studs or joists, as the case may be. The H-sections thus function in the manner of wood lath and, by tying the studs or joists together prevent the same from buckling under the load thereon and, in the case of wooden studs, from warping.

The invention is fully disclosed by way of example in the following description and in the accompanying drawing, in which—

Figure 1 is an elevation of a wall constructed according to the invention;

Figs. 2 and 3 are detail sections on the lines 2—2 and 3—3 respectively of Figure 1;

Fig. 4 is a perspective view of the H-section;

Fig. 5 is a perspective view of a modified form of section;

Fig. 6 is a detail elevation partly in section, of still another form of H-section;

Fig. 7 is a cross section thereof;

Fig. 8 is a detail perspective view of the wall in one of the intermediate stages of erection;

Fig. 9 is a perspective view of a temporary fastening member used in erection; and

Fig. 10 is a detail perspective view of a wall embodying the style of H-section shown in Figure 5.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

In Figure 1 is illustrated a wall built against studding 1 which rests on a floor 2. The invention is applicable to ceilings, and throughout the specification and claims the word "wall" is to be understood in its broad sense as either a vertical or horizontal structure, rather than in the strict sense of a vertical structure only.

The wall is made up of plaster boards 3 or the like, which in being erected, are equipped with double channel members or H-sections 4 at their edges. In the simplest embodiment of the invention, these sections consist of two channel members 5 placed back to back as shown in Figure 4 and spot welded together as indicated by the numeral 6.

Figure 8 illustrates the erection of the boards in greater detail. The lower edge of one of the boards 3 carries one of the double channel members 4 which rests on the floor 2. The upper edge of the board is temporarily held to the studding 1 by nails 7 or by U-shaped clips 8 having prongs 9 which enter the studding. The nails or the clips, as the case may be, are not caused to drive the board snugly against the studding but to allow sufficient clearance for the side wall of an H-section subsequently laid on the upper edge. Although the members 7 and 8 are temporary fasteners, they need not be removed from the studding.

H-sections are placed in like manner at the remaining edges of the board 3, and the subsequent boards adjacent to the board 3 each

have one edge received in the unfilled channel of the H-section. This operation is repeated with respect to all the boards.

The length of the boards 3 and the spacing thereof are so determined that the vertical joints 10 will fall along the studding wherever possible. When a vertical H-section has both of its channel portions filled with the edges of two adjacent boards, it is secured to the studding by nails 11 driven between the backs of the channels and into the studding. The nails have heads 12 of sufficient size to engage both of the exposed sides of both channel members as clearly shown in Figure 2. Where the horizontal H-sections 4′ intersect the studs they are fastened thereto in like manner by nails 11′.

In Figure 5 is illustrated an H-section having the side walls of the channels perforated at 13 to provide adherence of the outer coating of plaster at the joints. Where such a section is used, the means for securing it to the studding consists of staples 14 each having its legs driven into apertures at opposite sides of the joint and its back 15 closing the joint, as shown in Figure 10.

The modification illustrated in Figures 6 and 7 facilitates the driving of the nails 11 between the backs of the channels. Here the channels 20 constituting the H-sections have their backs depressed at spaced points 21 and welded together at these points. This construction leaves the backs of the channels spaced at 22 throughout their entire area excepting the points 21, and the nails 11 are readily driven through these spaces.

Although specific embodiments of the invention have been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention, as indicated by the appended claims.

What I claim is:

1. A wall construction comprising studs, composition boards laid adjacent said studs in edge to edge relation, double channel members or H-sections disposed between adjacent boards to receive abutting edges thereof, each such member engaging at least three studs, and securing members driven between the channels of each double channel member into said studs and having a head engaging the exposed sides of both channel members.

2. A wall construction comprising studding, composition boards laid adjacent said studding in edge to edge relation, double channel members or H-sections disposed between adjacent boards to receive abutting edges thereof, each double channel member consisting of a pair of channels having their backs secured together at spaced points and securing members driven between said channels and between the secured points thereof into said studding and each having a portion in contact with the exposed sides of both channels of a given double channel member.

3. A wall construction comprising studding, composition boards laid adjacent said studding in edge to edge relation, double channel members or H-sections disposed between adjacent boards to receive abutting edges thereof, each double channel member consisting of two channel members secured together in back-to-back relation at spaced points, and nails driven between the backs of said channels and between the secured points thereof into said studding and having heads engaging the exposed sides of both channels of the double channel members.

In testimony whereof I affix my signature.

GORDON R. WALPER.