Feb. 7, 1933. W. C. DAVIS ET AL 1,896,769

WALL OR CEILING CONSTRUCTION

Filed Aug. 31, 1931

Fig. 1

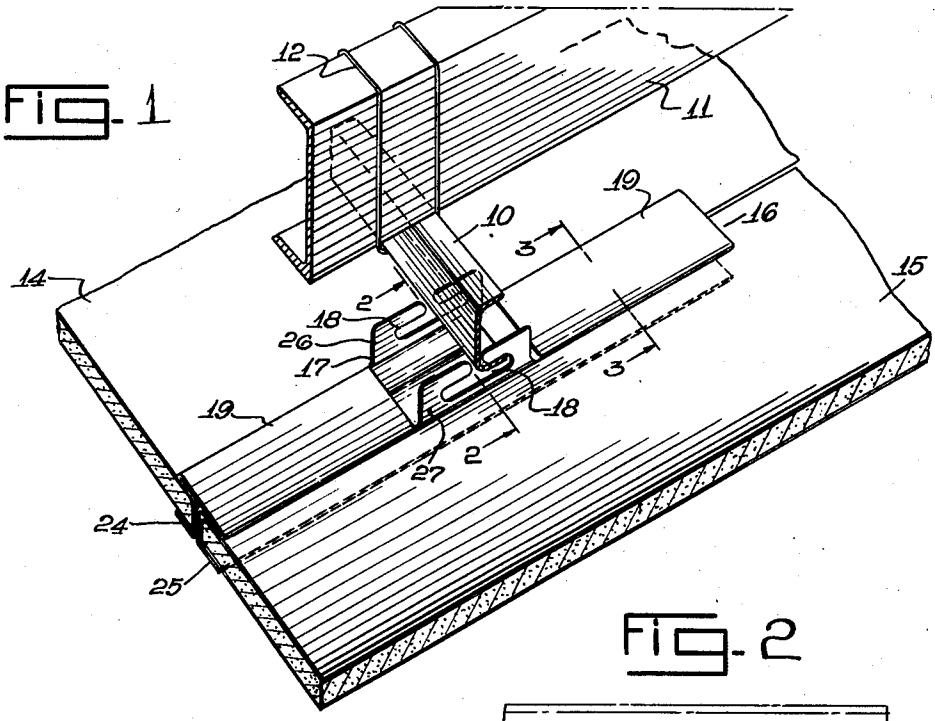


Fig. 2

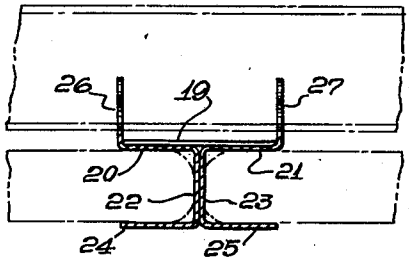


Fig. 3

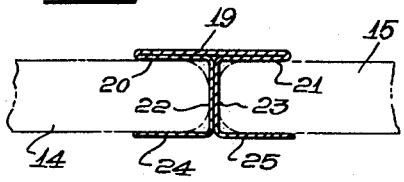


Fig. 4

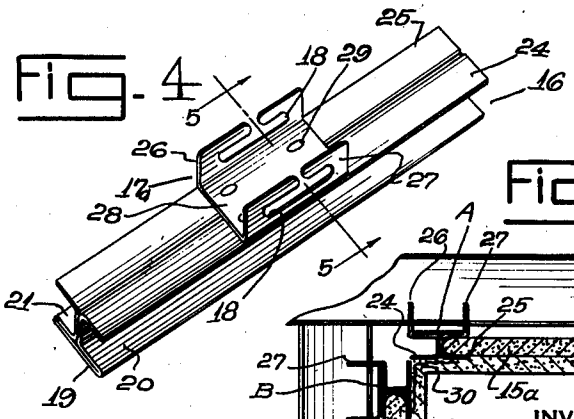


Fig. 5

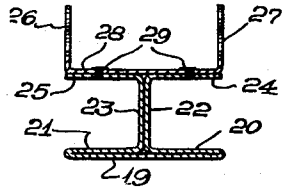
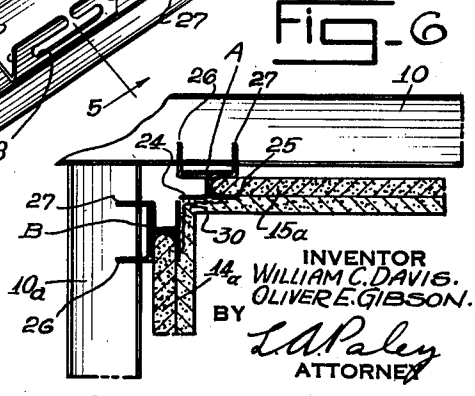


Fig. 6



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UNITED STATES PATENT OFFICE

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WALL OR CEILING CONSTRUCTION

Application filed August 31, 1931. Serial No. 560,288.

The present invention relates to a wall or ceiling construction, and more particularly to an improved channel-clip means for securing wallboard in such a construction.

Heretofore, in the application of wallboard to the metal studs of walls or to the metal framework of ceilings, there have been employed various devices, including channeled strips, and numerous types of clips for supporting the wallboard in place. In general, the clips have been separate and individual, being provided with means for in some manner embracing or frictionally engaging the channeled strip or the wallboard or both. The channeled strips have generally been single, that is, comprising a single web and two flanges, or in some instances a pair of such single channels have been secured in web to web relationship. Obviously, the production of the numerous separate articles requisite for a ceiling construction of the type referred to has required many separate operations. Furthermore, there have been necessitated multitudinous manipulations during the erection of such a ceiling, in placing the clips and channel strips in position.

It is an object of this invention to provide an improved double channel strip for engaging the wallboard panels, said double channel strip being made of a single integral strip of metal.

Another object of the invention is to provide an improved channeled member adapted for supporting wallboard in wall or ceiling construction in which a clip is formed integral with the channeled member for supporting it on the framework or studding.

A further object of the present invention is to provide a simplified wallboard wall or ceiling construction in which an improved channeled clip means minimizes the amount of material, expedites the speed of erection, and produces economies in erection; also to improve wall or ceiling constructions in other respects hereinafter specified and claimed.

Reference is to be had to the accompanying drawing forming a part of this specification, in which:

Fig. 1 is a perspective view of a fragment of a ceiling embodying the features of the present invention;

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1;

Fig. 4 is an isometric view of a modified form of channel strip and clip construction;

Fig. 5 is a sectional view taken on line 5—5 of Fig. 4; and

Fig. 6 is a partial plan view of a wall and ceiling illustrating the application of the features of the present invention at the corner of a room.

Referring more particularly to the drawing, in Fig. 1 a channel 10 is suspended from a rafter or girder 11 as by means of a conventional clip or tie wire 12 to form a framework for supporting the ceiling. Obviously, in a ceiling of the precast concrete type the channel 10 may be suspended therefrom by means of tie wires or in any other suitable manner.

Sheets of wallboard 14 and 15 are engaged at their adjacent edges by a double channel strip member 16 having formed integrally therewith a clip portion 17, having T-shaped double bayonet slots 18 which permit engagement with the frame member 10.

The wallboard illustrated is of that type commonly known as plasterboard or gypsum wallboard, but any suitable type of board including fiberboard, may be employed.

The channel strip member 16 is preferably made of one integral piece of metal, such as galvanized sheet steel or like sheet metal, bent along six parallel longitudinal lines to form a base portion 19, flanges 20 and 21 lying in a parallel plane against the base 19, abutting web portions 22 and 23, and flanges 24 and 25 substantially parallel to the flanges 20 and 21. Flanges 24 and 25 are illustrated as being of a width substantially equal to that of the flanges 20 and 21, but this is not to be construed as a limitation, since it is contemplated that the width of these flanges may be varied as desired.

The clip portion 17 is preferably cut in any suitable manner from the base portion 19 and comprises a pair of uprights 26 and 27, in

each of which is formed the double bayonet slot 18. The purpose of having double bayonet slots 18 is to permit engagement with the frame member 10 regardless of which way the flanges thereof may be facing. As is very clearly shown in Fig. 2 the uprights 26 and 27 are integral with the flanges 20 and 21 and the entire weight of the ceiling will be carried by said uprights. However, any tendency of the flanges 20 and 21 to fail in the region of the clip portion 17 by the imposition of unusual strains, is obviated by the base portion 19, which in effect, makes these flanges 20 and 21 of double thickness, and is of particular advantage in providing a rigid structure at the point where the strain is imposed. Furthermore, the clip portion 17 is preferably made with two flanges 26 and 27 because such a construction not only prevents undue strain, and consequently, buckling on any part of the channel-clip structure 16, 17, but also prevents any tendency of the channeled portion 16 to swing laterally out of place when board is being supported in only one of the channels or when there is more weight imposed upon any one of the boards 14 or 15 than upon the other, such as might be the case in the course of decorating or hanging fixtures of various sorts.

In Figs. 4 and 5 there is illustrated a modified form of clip and channeled member in which a clip portion 17*a* is made separate from the channel portion 16 and has a plate 28 upon which the upright slotted portions 26 and 27 are formed as right angular flanges. The plate 28 is then attached to the flanges 24 and 25 of the channeled member 16 by spot-welding as at 29 or in any other suitable manner, as by means of rivets or the like.

In erecting a wall or ceiling and utilizing the elements of the present invention, the usual practice is to engage a channeled clip 16 on one of the frame channels 10 and then engage one edge of the wallboard panel in a channel of one of the clips 16. Then another clip which has been engaged with another of the frame members 10, is engaged against the opposite edge of the board panel. Thereupon, another panel of board is brought into place and one of its edges engaged in the opposite channel portions of the last mentioned clip so that the edges of the boards will practically abut except for a distance equal to the thickness of the combined abutting web portions 22 and 23 of the channel member 16. The procedure outlined is consecutively followed until the entire wall or ceiling is in place. The number and weight of the channeled-clip members employed is governed by the size and weight of the board panels used. Although the fragmentary view in Fig. 1 specifically illustrates a ceiling construction, it is obivous that the only difference to be encountered in a wall would be that the frame member 10 would take the form of a vertical stud and the board would be set up vertically instead of horizontally as viewed in this Fig. 1.

In Fig. 6 there is shown a particular manner, found very satisfactory in practice, in which the elements of the present invention may be applied to the juncture of a wall and ceiling. The juncture feature has long been a vexing problem in the construction of this type of wall and ceiling, and has frequently been met by the provision of a separate corner clip or angle bar. This, however, necessitates careful segregation on the job of the various parts going into the ceiling or wall construction to prevent confusion or loss and is an added item of expense. It has been found very satisfactory with the present improved clip construction to take care of this very simply by allowing a distance equal to the vertical dimension through the channel portion 16 of the clip member, or where more desirable, the overall width of the flange 24 or 25, to remain between the edge of the clip member A and the stud 10*a* and allowing the same distance between the support 10 and the clip member B. Thus, in erection the clip member A is engaged with frame member 10 and resting against the stud 10*a*, the edge of the board 15*a* is brought into position, and the clip member A pushed over against it so that the channel thereof will engage the edge of the board. There will then be enough space left between the member A and the stud 10*a* to permit the clip member B, which is in engagement with the stud 10*a*, to be slid thereinto while the edge of the board 14*a* is brought into position so that the clip member B may be dropped down upon it whereby one of the channels thereof will engage the edge of the board. Even though there may be a gap, varying in specific instances, between the clip members A and B, a smooth joint may be effected by securing a strip of metal lath 30 or the like over the corner to bridge the gap and receive the decorative material or plaster with which a wall of this type is generally covered.

It is to be understood, of course, that although the invention has been generally illustrated as applied to a hollow wall or ceiling construction, this procedure has been resorted to only as a matter of convenience and it is contemplated that the improved elements of the invention are applicable to any sort of wall or ceiling in which channel bars are used as supports, studs or furring.

The present invention thus produces a simplified and improved ceiling or wall construction in which a novel channel-clip member of very compact and sturdy manufacture and comprising a minimum of parts is provided to greatly facilitate erection.

We would state in conclusion that while the illustrated example constitutes a prac-

tical embodiment of our invention, we do not wish to limit ourselves precisely to these details, since manifestly, the same may be considerably varied without departing from the spirit of the invention as defined in the appended claims.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. The combination with a channeled frame member and wallboard, of a wallboard engaging member comprising a double channel having opposed integral channels, and flanges and clips forming integral extensions of the upper flanges of the double channel, and provided with engagement portions for engaging said frame member.

2. A ceiling construction comprising a frame member, wallboard, and means for attaching said wallboard to the frame member, said attaching means comprising a double channel member engaging the edges of the wallboard and having a pair of clips formed integral with the upper flanges thereof to engage said support means.

3. An integral clip and channel strip adapted to support wallboard in a ceiling construction, comprising a channeled member, a plurality of clips formed integral with a flange of said channeled member at substantially the center thereof, said clips being provided with means for suspending the same from a support.

4. In combination, a double channel member formed of a single piece of sheet metal, the center strip of said piece of metal comprising a base portion upon which the remaining lateral portions of metal are bent inwardly, then at right angles to the base and then outwardly to form a pair of opposed channels integrally joined by said base portion, and an attaching clip portion cut from said base portion, said attaching clip being provided with a slot and extending at substantially right angles to said base portion, thereby providing means for securing said double channel member to a support.

5. A clip adapted for use in wall or ceiling construction, comprising a plate portion, and spaced flanges on the longitudinal edges of said plate portion, each of said flanges being provided with a slot and a slit in each of said flanges connecting with said slot and permitting insertion of a straight object laterally into both of said slots at the same time.

6. A clip adapted for use in wall or ceiling construction, comprising a plate portion, and flanges on the longitudinal edges of said plate portion, each of said flanges being provided with a slot and a slit extending from the outer edge of said flanges to such slot whereby a pair of opposing jaws are formed in each flange for engagement with an angular support.

7. In combination, a channeled strip, and a clip comprising a plate portion welded to said strip and having two flanges at substantially right angles to said plate portion, each of said flanges being provided with a bayonet slot for engaging a supporting member.

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