A. J. WIDMER.

WALL BOARD SUPPORT.

APPLICATION FILED MAY 12, 1916.

1,277,513.

Patented Sept. 3, 1918.

Fig. 1.

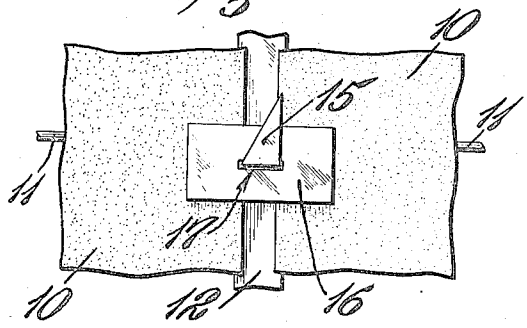


Fig. 2.

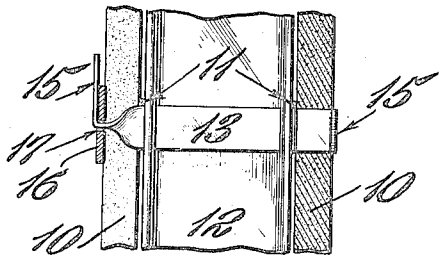


Fig. 3.

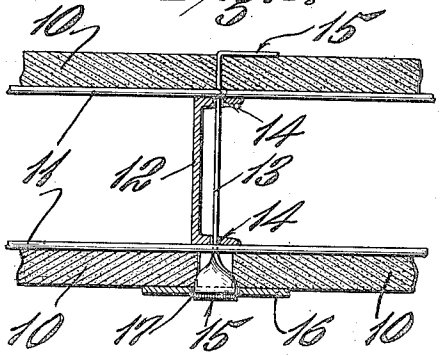


Fig. 4.

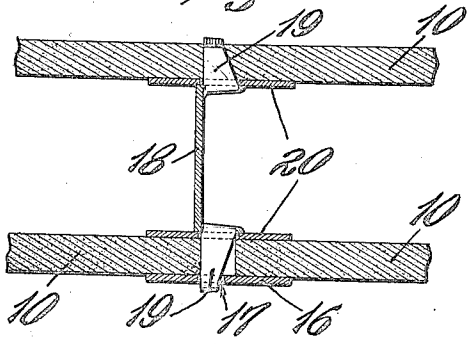


Fig. 5.

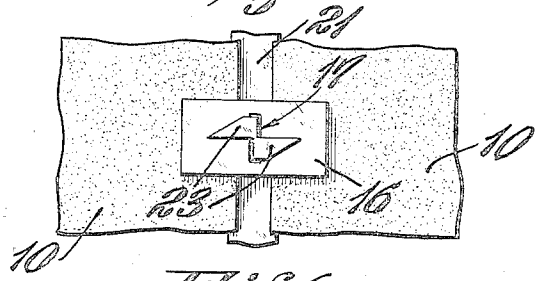


Fig. 6.

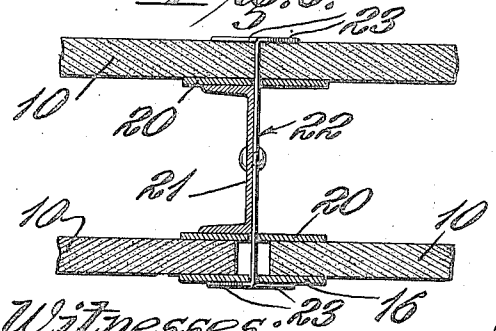


Fig. 7.

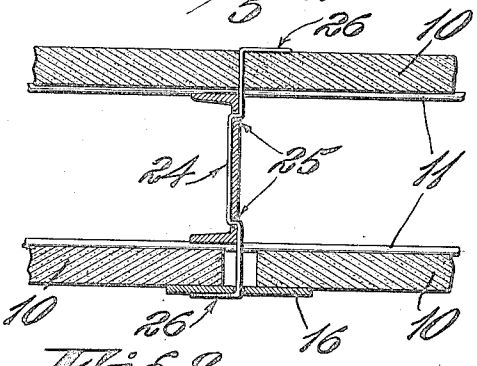
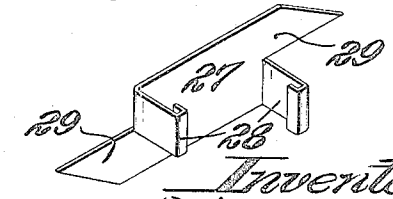


Fig. 8.



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UNITED STATES PATENT OFFICE.

ARTHUR J. WIDMER, OF WEBSTER GROVES, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, TO WIDMER ENGINEERING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

WALL-BOARD SUPPORT.

1,277,513. Specification of Letters Patent. Patented Sept. 3, 1918.

Application filed May 12, 1916. Serial No. 96,975.

To all whom it may concern:

Be it known that I, ARTHUR J. WIDMER, a citizen of the United States, and a resident of Webster Groves, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Wall-Board Supports, of which the following is a specification.

This invention relates to plastered walls and ceilings made of plaster board, pulp board, fiber board, and the like, carried by light studding and serving as a ground for the plaster, and particularly to the ties and spacers for securing the plaster boards in place.

The object of the invention is a light, cheap plaster board construction which can be easily and quickly erected. To these ends the invention consists in a metal channel or other suitable shape provided with clips or prongs for penetrating the plaster boards or passing between the edges of the plaster boards, and plates, wires or other suitable means for spacing the plaster boards at a uniform distance from the supporting channels, together with plates overlapping the outside or exposed edges of the plaster boards and engaging with the extremities of the prongs or clips for supporting the plaster boards in place.

The invention is susceptible of considerable modification in its constructional features, and further objects and details of the invention are described below in connection with the accompanying drawings, which illustrate several forms of the invention. What the invention consists in is more particularly defined in the appended claims.

In the drawings, wherein the same reference characters designate the same or similar parts in the several views,

Figures 1, 2 and 3 are a side elevation, a vertical cross-section and a horizontal cross-section, respectively, of a portion of a partition wall embodying one form of the invention;

Fig. 4 is a horizontal cross-section of a portion of a partition wall embodying another form of the invention;

Figs. 5 and 6 are a side elevation and a horizontal cross-section of a portion of a partition wall embodying still another form of the invention;

Fig. 7 is a horizontal cross-section of a portion of a partition wall, embodying another form of the invention similar to that shown in Figs. 1, 2 and 3; and

Fig. 8 is a perspective view of a supporting clip suitable for use with any channel or I-beam supporting studs of usual size.

Plaster boards and similar sheets for walls are usually about thirty to thirty-six inches long, and the wall studding is usually spaced fifteen to eighteen inches apart on centers. Accordingly, each plaster board spans the spaces between two studs, and it is usual to arrange the plaster boards on each side of the wall to break joints at the studs; that is, the middle of the plaster board on one side of the wall is disposed opposite a stud opposite which the ends of two adjacent plaster boards on the other side of the wall are disposed, as shown in Fig. 3, for example.

In the form of the invention illustrated in Figs. 1, 2 and 3, the plaster boards 10 are laid against horizontal spacing wires 11 which are strung along on both sides of the studs 12 at suitable distances apart vertically to conform to the width of the plaster boards, there being two wires to each horizontal row of plaster boards.

The ties 13 are narrow ribbons of sheet metal, and are arranged through slots 14 in the flanges of the channels 12. The ends 15 of the ties 13 are sheared to a point and project from the channels sufficiently to penetrate the plaster boards and leave about half an inch projecting on the outer side. The ends of the ties are twisted or crimped at the points where they come through the channels to hold them in place. These projecting ends 15 are bent over to hold the plaster boards in place. Where two plaster boards meet, the end of the tie lies in the space between them, and is bent through a slot in a plate 16 spanning the space with its ends bearing against the edges of the plaster boards. The slot 17 in the plate 16 in the construction shown in Figs. 1, 2 and 3 is arranged lengthwise of the plate to coöperate with the twisted end of the tie. For coöperating with the opposite or crimped end of the tie, the plate would have a crosswise slot.

In the construction shown in Fig. 4, the channel 18 has points 19 struck up in its

flanges for securing the plaster boards. Plates 20 are arranged between the plaster boards and the channel to space them the same distance from it on both sides of the wall.

In the construction shown in Figs. 5 and 6, the channels 21 have strips of sheet metal 22 secured to them by rivets, the ends of the strips projecting beyond the channels and being cut to a point as in the construction shown in Figs. 1, 2 and 3. Plates 20 like those shown in Fig. 4 are used to space the plaster boards away from the channels instead of wires as shown in Figs. 1, 2 and 3. The ends of the ties 22 are split in lengthwise to make two points 23 at each end, one of which is bent each way the better to secure the plates 16 and plaster boards.

In the construction shown in Fig. 7, the ties 24 are wires or ribbons which are bent intermediate their ends and are arranged in the bottom of the channel with their ends projecting through holes 25 in the web of the channel and bent outward to form oppositely extending prongs 26 projecting beyond the flanges of the channel. The supporting wires 11 and plates 16 are arranged the same as in Figs. 1, 2 and 3.

The clip 27 shown in Fig. 8 has its ends slit to form two hook portions 28, one at each end, and two end prongs or ties 29. The hook portions are bent at right angles to the clip to engage around the flanges of a channel or I-shaped stud, and their extremities can be turned over the edges of the flanges to secure the clip to the stud. The plaster boards are secured to the studs by the tie portions of the clips 27, either directly by the prongs or ties 29 passing through them, or by plates 16 as in the arrangement shown in Figs. 1, 2 and 3.

What I claim as my invention and desire to secure by Letters Patent is:

1. A plaster board construction comprising a metal stud, a spacing member for spacing the plaster boards away from the stud and forming an abutment for the plaster boards, a metal plate overlapping the edges of adjacent plaster boards and a tie secured to said stud, said tie comprising a flat ribbon of sheet metal having its end portions beveled to form prongs projecting beyond the stud and adapted to be bent laterally to hold said plate in position.

2. A plaster board construction comprising a metal stud provided with spaced orifices, a tie having portions arranged through said orifices whereby it is secured to said stud, said tie having a prong at each end projecting beyond the stud, means arranged between said stud and said plaster boards and forming abutments for the plaster boards, and a metal plate overlapping the edges of adjacent plaster boards and holding said plaster boards in place, said plate having a hole through which one of said prongs is bent.

3. A plaster board construction comprising a metal stud provided with spaced orifices, a tie having portions arranged through said orifices and crimped or twisted adjacent thereto whereby it is secured to said stud, said tie having a prong at each end projecting beyond the stud, means constituting abutments for the plaster boards interposed between said stud and said plaster boards, and a metal plate overlapping the edges of adjacent plaster boards, and holding them in place against the stud, said plate having a hole through which one of said prongs is bent.

4. The combination with plaster boards of a metal stud with spaced orifices, a tie having portions arranged through said orifices whereby it is secured to said stud, said tie having a prong at each end projecting beyond the stud, means arranged between said stud and said plaster boards to bear against the plaster boards, and a metal plate overlapping the edges of adjacent plaster boards, one of said prongs being bent over said plate and holding said plate and plaster boards in position.

5. A plaster board construction comprising a metal stud, a spacing member for spacing the plaster boards away from the stud and forming an abutment for the plaster boards, a metal plate overlapping the edges of adjacent plaster boards and a tie secured to said stud, said tie comprising a flat ribbon of sheet metal having portions adapted to engage the stud and having its end portions beveled to form prongs projecting beyond the stud and adapted to be bent laterally to hold said plate in position.

Signed at St. Louis, Missouri, this 10th day of May, 1916.

ARTHUR J. WIDMER.