A. J. WIDMER.

PLASTER BOARD SUPPORT.

APPLICATION FILED MAY 10, 1916.

1,250,537. Patented Dec. 18, 1917.

Fig. 1.

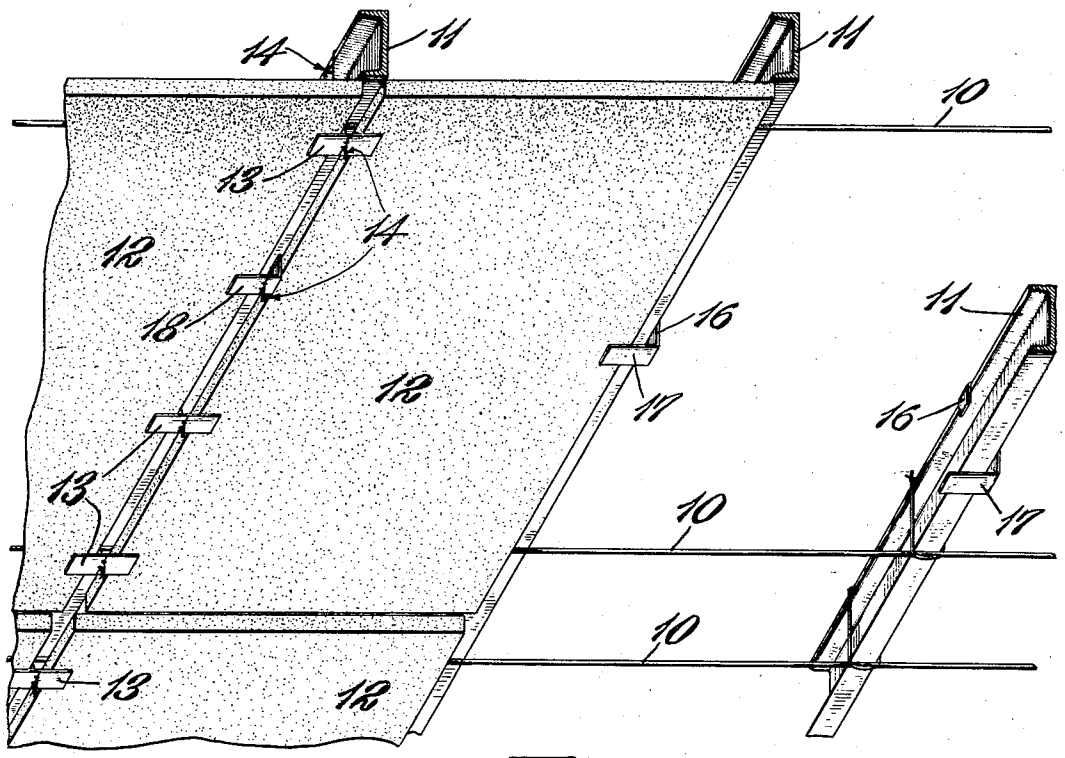


Fig. 3.

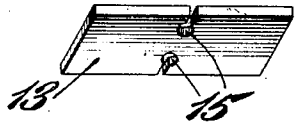


Fig. 5.

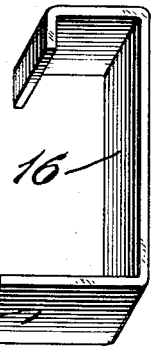


Fig. 2.

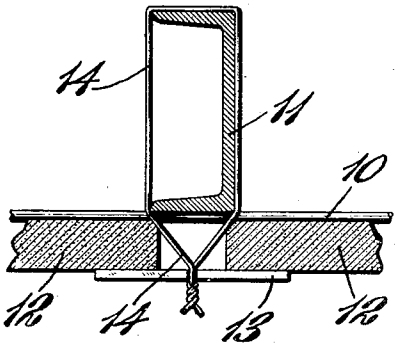
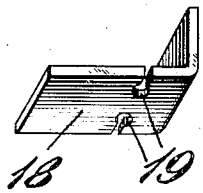


Fig. 4.



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UNITED STATES PATENT OFFICE.

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

PLASTER-BOARD SUPPORT.

1,250,537. Specification of Letters Patent. Patented Dec. 18, 1917.

Application filed May 10, 1916. Serial No. 96,517.

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 Plaster-Board Supports, of which the following is a specification.

This invention relates to improvements in walls and ceilings wherein plaster boards, pulp boards, fiber boards, and the like are used as a ground for the plaster, and has to do particularly with the means of supporting the plaster boards in place.

Plaster boards come in rectangular sheets of uniform size. The sizes commonly used range from eighteen to twenty-four inches wide by from twenty-four to thirty-six inches long. They are commonly supported from small channels or I-beams about an inch or more in depth and three-eighths or one-half an inch in flange width, and as the alinement of these supporting members cannot be exact, and as the spaces between the edges of the plaster boards may vary from one-quarter to one-half of an inch, it is not practical to attempt to make the edges of the plaster boards register exactly with the flanges of the supporting members.

The objects of the invention are to take care of misalinement of the supporting members and plaster boards by the use of flexible ties and supports for holding up the edges of the plaster boards, and to arrange the supports and ties for securing the plaster boards to the supporting members so that the plaster boards can be placed and secured by one man without any helper. A further object of the invention is to support the plaster boards snugly against a rigid backing so as to permit plastering their exposed surfaces.

The invention consists in arranging wires or other suitable spacers between the plaster boards and the channel or I-beam supporting members, and in holding the plaster boards snugly against the wires by means of flexible metallic ties, such as wire loops, passing around the supporting members and between the edges of adjacent boards and twisted at their exposed ends around plates which span the spaces between the boards and support their edges.

Further objects of the invention appear in connection with the description of the plaster board ceiling shown in the accompanying drawings, and in the process of erection thereof, hereinafter described; and what the invention consists in is more particularly set forth in the appended claims.

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

Figure 1 is a perspective view of the under side of a ceiling embodying the invention, prior to completion, showing part of the plaster boards in place;

Fig. 2 is a cross-section of a small portion of the ceiling, showing a supporting member and the edge portions of two adjacent plaster boards;

Fig. 3 is a perspective view of a tie plate;

Fig. 4 is a perspective view of a special form of tie plate for supporting the edge of one plaster board only; and

Fig. 5 is a perspective view of a supporting hook for supporting temporarily one edge of a plaster board during erection.

Figs. 2, 3, 4 and 5 are drawn to the same scale, which is larger than that of Fig. 1.

In the construction shown in the drawings, wires 10 are strung across the under sides of the supporting channels 11 from side to side of the room, and are tied to the channels at enough points to keep them in place during the erection of the plaster boards. The plaster boards 12 are held up against the wires by sheet metal plates 13, which in turn are supported by wire ties 14 which pass between the edges of the plaster boards and are looped around the supporting channels 11. Each of the plates 13 has a pair of holes 15 through it at its middle on opposite sides of the median line, and slots run into these holes from the opposite edges of the plate, as shown in Fig. 3. This arrangement permits the wires 14 to be passed through the holes 15 without difficulty, and insures that the plates shall not slip out of place after having been tied up.

The plaster boards are erected one at a time, and are held in place at one edge temporarily by clips 16 which hook over the supporting members and have their lower ends bent horizontally to form supports 17 for slipping under the edges of the plaster boards. The opposite edge of each plaster board is supported by the workman while the permanent ties 14 and plates 13 are being

placed under it. Prior to tying up the next row of plaster boards, the clips 16 are removed and are replaced by angle-shape plates 18, which have slotted holes 19 for tie wires, and are secured to the supporting members like the plates 13. The leg portion of each angle clip 18 rests against the lower flange of the supporting member, and the edge of the adjacent plaster board is set against it to space the boards at a suitable distance apart, as shown in Fig. 1. This manner of erecting and securing the plaster boards enables a row of them to be placed by a single workman with no trouble, and increases the speed with which a ceiling can be erected as all the workmen can work independently.

The wires 10 provide a continuous backing for laying the plaster boards against and alining them, and also space the plaster boards away from the supporting members and enable the tie wires to be looped around them without difficulty. The wires 10 are arranged well within the margins of the plaster boards, and are stiff enough to hold the plaster boards level for plastering.

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

1. In a plaster board construction comprising supporting members, wires stretched transversely of said supporting members, plaster boards laid against said wires with their edges in alinement with said supporting members, said wires spacing said plaster boards away from said supporting members, and means for supporting said plaster boards against said wires.

2. In a plaster board construction comprising supporting members, wires stretched transversely of said supporting members, plaster boards laid against said wires with their edges in alinement with said supporting members, said wires spacing said plaster boards away from said supporting members, and means for supporting said plaster boards against said wires, said means being arranged in the spaces between the edges of the plaster boards and the supporting members.

3. In a plaster board construction comprising supporting members, wires stretched transversely of said supporting members, plaster boards laid against said wires with their edges in alinement with said supporting members, said wires spacing said plaster boards away from said supporting members, and flexible means attached to said supporting members for supporting said plaster boards against said wires.

4. In a plaster board construction comprising supporting members, plaster boards laid with their edges in alinement with said supporting members, continuous means between said supporting members for spacing said plaster boards away from said supporting members, wire loops engaging said supporting members and passing between the edges of said plaster boards, and metal plates arranged against the edges of said plaster boards, said wire loops engaging around said plates for holding them in place.

Signed at St. Louis, Missouri, this 8th day of May, 1916.

ARTHUR J. WIDMER.