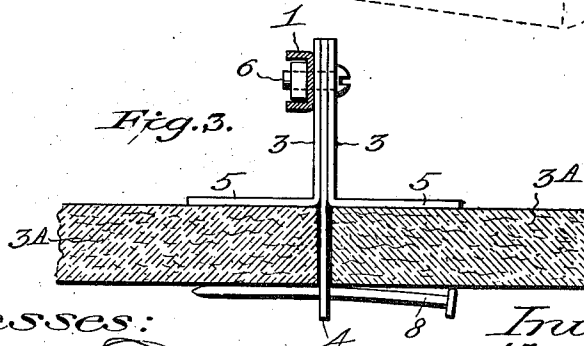
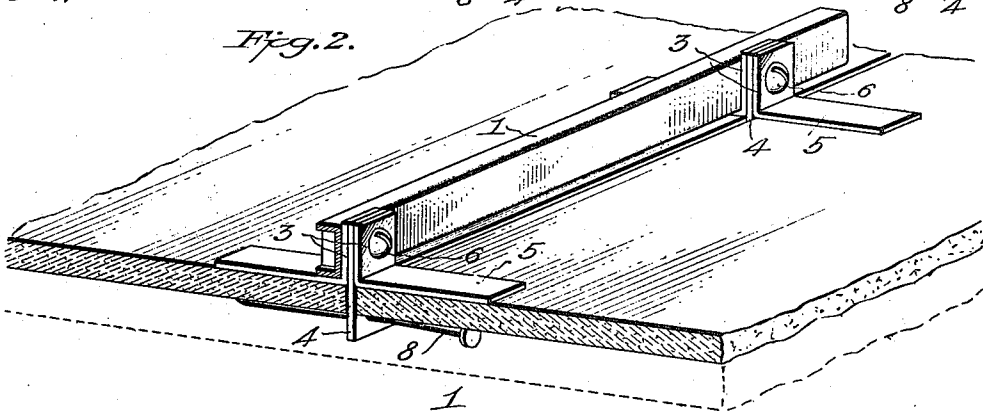
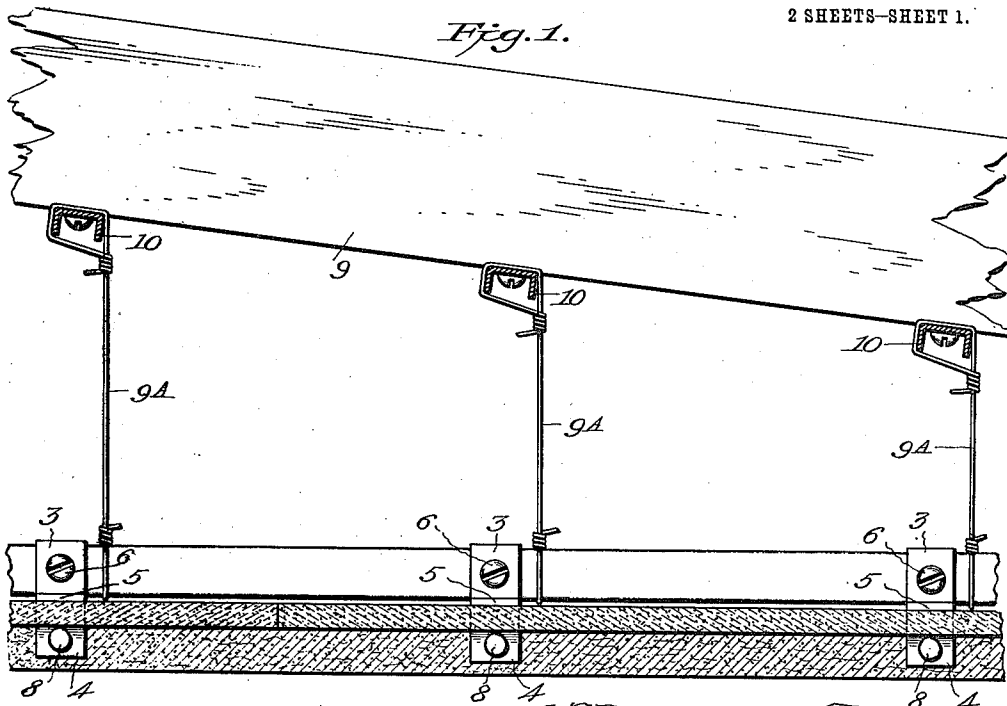


M. H. JESTER.
SUPPORTING FRAME.
APPLICATION FILED MAY 12, 1911.

1,045,297.

Patented Nov. 26, 1912.

2 SHEETS—SHEET 1.



Witnesses:

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Inventor:

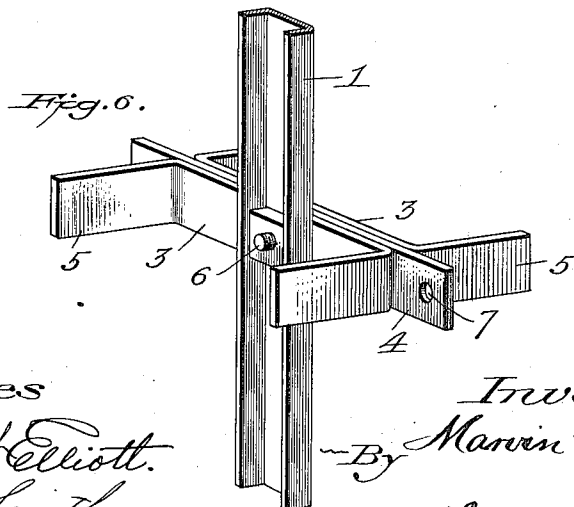
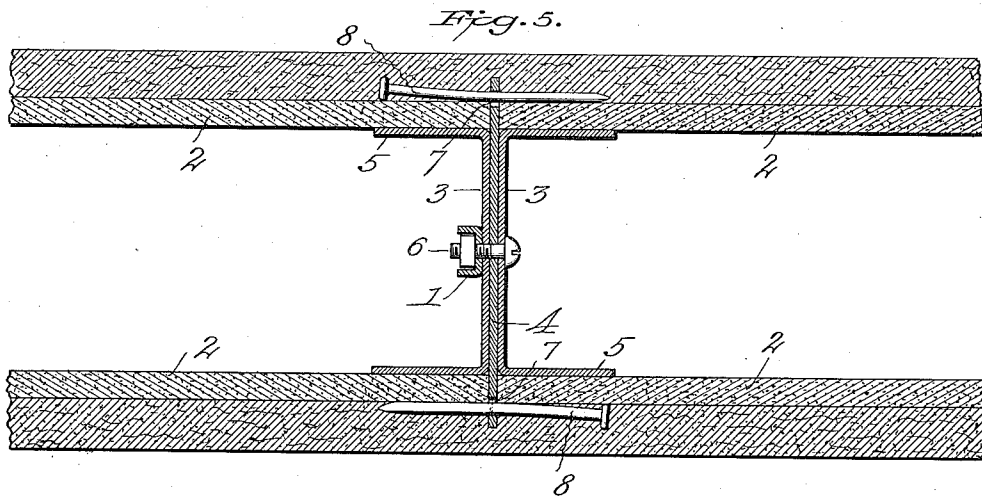
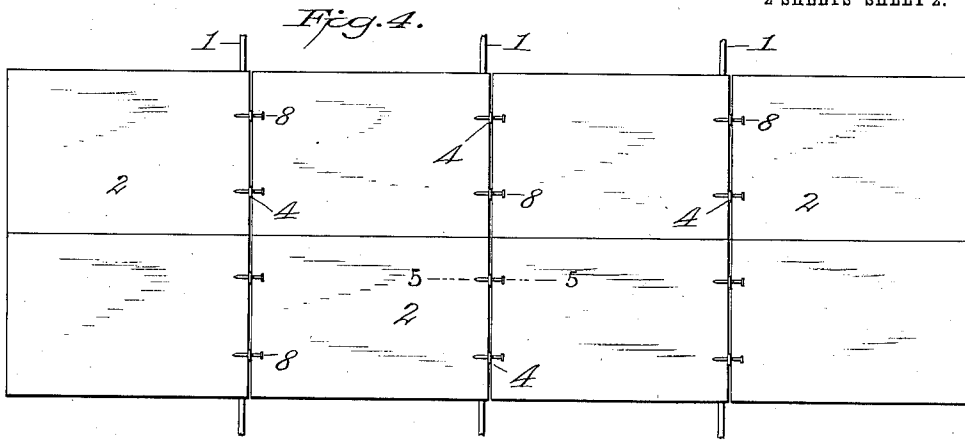
By Marvin H. Jester.
H. S. Bailey, Attorney.

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2 SHEETS-SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

MARVIN H. JESTER, OF DENVER, COLORADO.

SUPPORTING-FRAME.

1,045,297.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed May 12, 1911. Serial No. 626,857.

To all whom it may concern:

Be it known that I, MARVIN H. JESTER, a citizen of the United States of America, residing in the city and county of Denver and State of Colorado, have invented a new and useful Improvement in Supporting-Frames, of which the following is a specification.

My invention relates to improvements in ceiling supporting and in hollow partition supporting frames for supporting asbestos or plaster boards and slabs as wall and ceiling plaster and cement receiving surfaces, and the objects of my invention are: First: to provide an asbestos slab supporting frame arranged and adapted to form ceilings of rooms below the floors or roof joists of buildings, the said asbestos slabs when properly supported to form a ceiling, being adapted to receive the ceiling plastering mortar and finishing coats usually given to wall plastering mortars and cements. Second: to provide an asbestos board or slab supporting ceiling frame having clamping members adapted to be made of any predetermined length to fit asbestos boards or slabs of different thicknesses. Third: to provide a simple, inexpensive and quickly assembled multiple asbestos or plaster board supporting bar, channel and cross clip metal partition framework for forming ceilings and hollow partitions for buildings. I attain these objects by the mechanism illustrated in the accompanying drawings, in which:

Figure 1 is a vertical sectional view illustrating the application of my invention as a ceiling supporting frame for asbestos boards. Fig. 2 is a perspective view of the arrangement shown in Fig. 1. Fig. 3 is a transverse sectional view showing the device adapted for use in connection with thick asbestos boards. Fig. 4 is a front elevation illustrating a plurality of plaster boards clamped in position upon the supporting structure. Fig. 5 is a horizontal sectional view of a portion of the partition on the line 5—5 of Fig. 4. And Fig. 6 is a perspective view, showing a portion of one of the channel bar uprights, with one of the plaster board supporting clips.

Similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings. The numeral 1 designates a bar, preferably a channel bar, of merchantable iron, although it may be a flat bar, if desired. This channel bar is

preferably of about a sixteenth of an inch thick by about three-quarters of an inch wide. This bar is made of the length of a ceiling or of the height of the partition it is desired to form or make, and this channel bar may be either in a single piece or in spliced pieces, and they are spaced at such predetermined distances apart across a room as is necessary to form a substantial and rigid support for ceilings or hollow partition walls, but for ceilings or partitions of rooms of the ordinary sizes used in residences they may be spaced from about eighteen inches to three feet apart. These channel bars are to be placed, however, at the meeting edges of plaster boards 2 or of asbestos boards 3^A, which may be secured in any desired lengths.

The asbestos or plaster boards are made in different sizes, a commonly made and used size being thirty-six inches long and thirty inches wide, and they are made in different thicknesses, which vary from about three-eighths inches thick to about two inches thick, and both are commercial products used in the framing of buildings. In order, however, to support a multiple number of these asbestos or plaster boards in an edge to edge horizontal or vertical plane, it is necessary that their meeting vertical edges be rigidly clamped to an unyielding metal frame or supporting structure that, owing to the distance of these boards from the channels, must be rigidly secured to or form a part of the channel bars, and must form an unyielding and rigid support for the asbestos or plaster boards.

I preferably carry out these features of my invention in the following manner: I secure to the channel bars at from a few inches to about a foot apart a pair of narrow clips 3, which are formed of flat or a slightly curved form of merchantable bar iron. These clips are provided with right angled bent flat faced ends 5, against which the asbestos boards are adapted to rest. Between these flat ended clips I place a thin strip of flat iron 4, which I term the clamping strip. This clamping strip 4 is made enough longer than the channel bar clips to extend through the thickness of and beyond the plaster boards and receive in an aperture 7 a nail 8 or other device for clampingly keying the plaster boards against the flat ends of the clips. These plaster board supporting and abutment

clips 3 are placed back to back against the opposite sides of the thin flat clamping strips of iron 4, and they are, together with the flat thin strip of flat iron 4, secured to the channel bars at right angles to it in substantially horizontal planes. I preferably secure them to the channel bars with screw headed bolts 6, the nuts of which are of a size to fit in the channel of the bar without turning. When the frame is used for a hollow partition these clips are made long enough to extend across the channel bar and to an equal distance on each side of it.

In applying my supporting frame to inclined flat roofs for supporting ceilings, the channel bars are suspended from the roof joists 9 in a horizontal plane by wires 9^A, which are secured to the roof joists in any suitable manner, Fig. 1 illustrating the frame suspended from the roof joists of an inclined roof by wires that are worked around channel bars 10 that are secured to the roof joists at one end and that are wrapped around the channel bars of the asbestos board supporting frame at their opposite ends. The wires are manipulated to support the frame and asbestos boards in preferably a horizontal plane.

In Fig. 2 a perspective view of the construction of the frame and of the manner of clampingly securing the asbestos boards to the flat ends of the clips of the frame is shown, while in Fig. 3 the clamping strip 4 is shown made enough longer than the strips 3 in Figs. 1 and 2 below the flat ends of the clips to extend through a much thicker asbestos board than those in Figs. 1 and 2. This ceiling frame can also be used for solid partitions if desired, it being evident that all that is necessary when using it for partitions is to arrange the channel bars vertically between the floor and ceiling joists of rooms. I preferably use, however, for partitions, plaster boards, although asbestos boards can be used if desired. My improved ceiling or solid partition frame is also particularly adapted for making hollow partitions without changing the form of or adding to its parts, it being only necessary to secure the channel bars in a vertical position between the floor and ceiling beams of rooms and to make the body portion of the clips as long as it is desired to make the width of the hollow space in the wall between the plaster boards that form the opposite sides of the partition, as the length of the body portions of these clips defines the width of the hollow space in the hollow partition wall after it is made. The clips for a hollow partition use are formed with right angled bent flat end portions at their opposite ends which are bent in the same direction on each half clip portion or strip, it requiring two half clip strips and a clamping strip between them to form a whole clip for either the ceiling or

partition frame. The clips are then secured crosswise or transversely at right angles to the vertically arranged channel bars by any suitable means, but preferably by a screw-driver headed bolt and nut 6, as will be fully explained hereinafter. Consequently the only difference between the ceiling frame and the hollow partition frame is in the double flat chips having bent abutment ends for the boards at both ends for the hollow partitions and single abutment ends for the boards when used for ceilings. Each clip, however, is composed of a pair of single clip strips having a curved-up end on only one of their ends for the ceiling or solid partition frames and having turned-up ends on the opposite ends of each single strip for the hollow partition.

The right angled bent ends 5 of each pair of plaster board supporting and bracing clips are turned outwardly in opposite directions from the clamping strip and are made long enough to form a substantial abutting and bearing surface for the plaster boards, which are laid up against them and are clampingly secured tightly against them by any suitable device that can be secured in any manner to the projecting ends of the clips. I preferably, however, clampingly secure the plaster boards to the ends of the clips in the following manner: Through the opposite end portions of the clamping strip 4 of each supporting clip I form an aperture 7 in such a position that the greater portion of the aperture will be outside of the asbestos or plaster boards and a small arc of it will be below the plane of the flat sides of the two adjoining slabs of asbestos or plaster board and between their edges, and then drive a key, such as a wedge member, preferably using, however, a long wire nail through the aperture, the relative sizes of the aperture and the nail being such and their relative positions such that the nail will bear against the top of the aperture only and will bear for a considerable portion of its length on each of the end to end slabs of plaster board that come end to end together against the clip when the nail is driven tightly into the aperture against the asbestos or plaster boards, which forces the end portions of the boards tightly against the flat abutment ends of the clip and rigidly clamps and secures them to the clips.

The operation is as follows: The channel bars are provided with a row of apertures along the center of their lengths that are adapted to receive the screw threaded bolts by which the clips are bolted to the channel bars, and these bolt holes are arranged at any predetermined distances apart required. The clips are then bolted to the channel bars and are arranged to stand at right angles to them, and they are positioned at such distances apart as to fit the lengths of the as-

bestos or plaster board used, so that their clamping strips will come between the ends of the boards and so that the ends of the length of boards used will either abut against the opposite sides of the clamping strips 4 or lie close to them. The asbestos or plaster boards are then laid up against the flat abutment ends of the clips, and are securely, rigidly and clampingly keyed to them by the nails which forms a ceiling or a solid or a hollow partition, as shown in the several figures, that is practically damp proof, sound proof and fire proof.

My invention enables a ceiling of any desired thickness or a hollow partition of any desired width to be built with great rapidity, with the asbestos or plaster boards attached, and after the frame is erected, their outside surfaces are covered with the usual thickness of wall plastering mortar and finishing coats, which buries and covers the nails and the ends of the clamping strips out of sight.

My invention is simple, strong and easily, quickly and cheaply constructed; and, while I have illustrated and described its preferred construction and arrangement, I do not wish to be limited to it, as many changes might be made without departing from the spirit of my invention or the scope of the appended claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a supporting frame as specified, a longitudinal supporting bar, pairs of angle plates arranged back to back, strips interposed between each pair of angle plates, and

bolts for securing each pair of angle plates and strips to the supporting bar transversely of its length, said strips being extended beyond the angle plates and the extended portions being provided with apertures to receive a nail.

2. In a supporting frame as specified, a longitudinal supporting bar, pairs of angle plates arranged back to back and bolted to said supporting bar at intervals, and crosswise of its length, a strip between each pair of angle plates and bolted with them to the bar, said strips extending beyond the oppositely turned ends of the angle plates, the extended portions having apertures, and clamping nails adapted to be driven into said apertures to clamp material between them and the oppositely turned ends of the angle plates.

3. In a supporting frame as specified, a rigid longitudinal bar, a plurality of brackets secured upon the bar crosswise of its length, and comprising substantially U-shaped angle plates arranged end to end, and a metal strip between each pair of angle plates, the ends of which are extended beyond the plates and provided with apertures, and nails which are driven into the apertures to clamp material between them and the oppositely turned sides of the angle plates.

In testimony whereof I affix my signature in presence of two witnesses.

MARVIN H. JESTER.

Witnesses:

G. SARGENT ELLIOTT,
ADELLA M. FOWLE.