Oct. 15, 1940. H. J. WILHOYTE 2,218,273

BOARD MOUNTING CLIP

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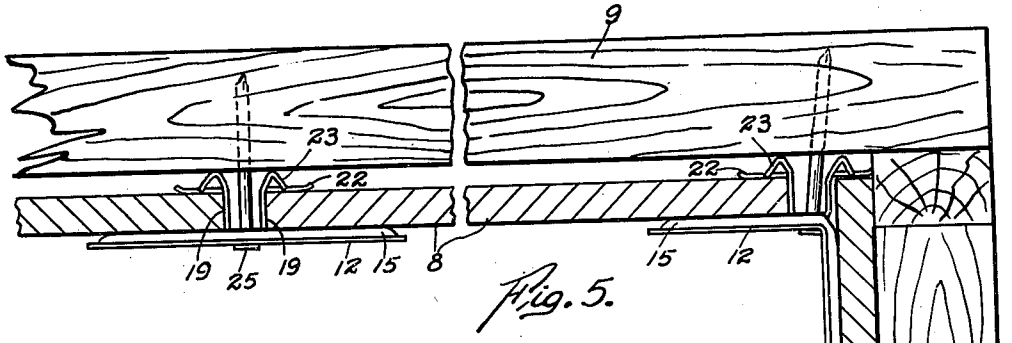


Fig. 5.

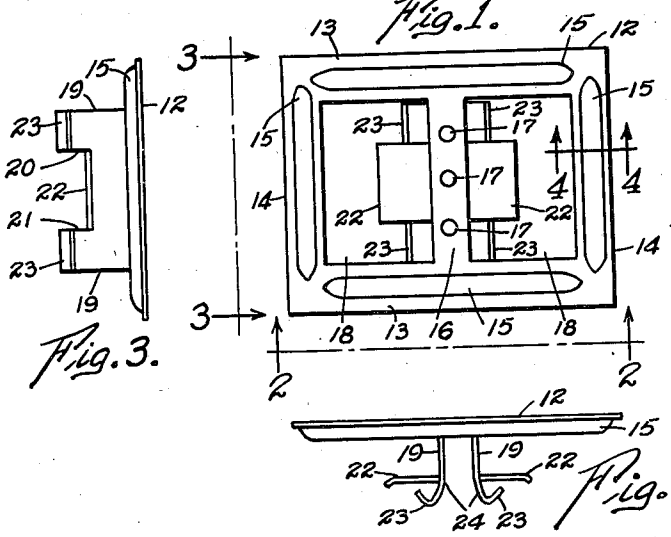
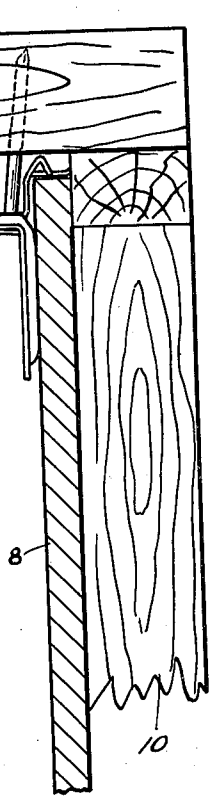


Fig. 1.

Fig. 3.

Fig. 2.



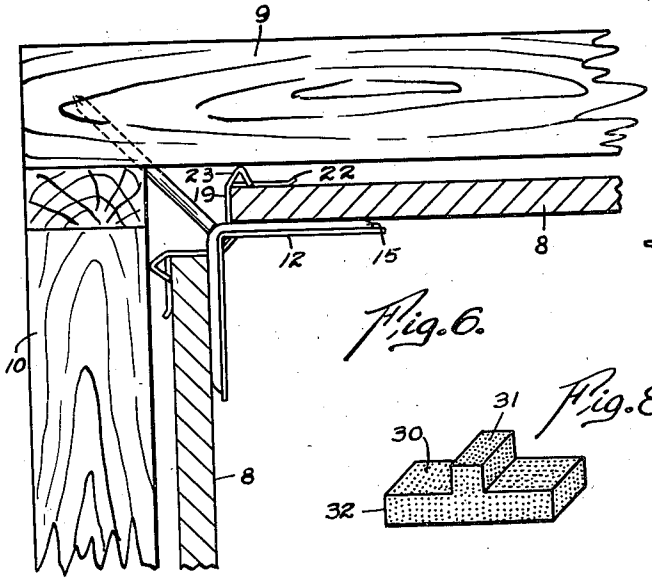


Fig. 6.



Fig. 4.

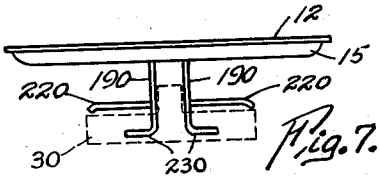


Fig. 7.

Fig. 8.

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BOARD MOUNTING CLIP

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7 Claims. (Cl. 72—118)

The present invention relates to a mounting clip for plaster board, sheet lath, and the like.

An object of the invention is to provide a mounting clip for the purpose stated, which is simple, inexpensive and effective, and which may be manufactured on a high production basis without any waste of material whatsoever.

Another object of the invention is to provide a mounting clip of the character referred to, which accurately aligns the sheet material, and automatically spaces it from the supporting structure to which it may be applied.

A further object is to provide a mounting clip for sheet material which may be face nailed to a support, thereby to facilitate the positioning and mounting of all slabs, including the last slabs to be placed.

Another object is to provide a mounting clip embracing the advantages of furring plaster board or other sheet material with relation to a support therefor, and providing a substantial bond or key relationship with the plaster or other material to be applied as a finish coat for the board or sheet material.

A further object of the invention is to provide a clip of the character referred to, which may be manufactured in large quantities by means of a single press operation.

The foregoing and other objects are attained by the means described herein and disclosed in the accompanying drawing, in which:

Fig. 1 is a plan view of the mounting clip of the invention.

Fig. 2 is a side elevational view taken on line 2—2 of Fig. 1.

Fig. 3 is an end elevational view taken on line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 1.

Fig. 5 is a cross-sectional view through the wall and ceiling showing the mounting clip of the invention as applied for the mounting of sheet material.

Fig. 6 is a view similar to Fig. 5, showing application of the mounting clip in such manner as to fur both the wall and the ceiling from their respective supports.

Fig. 7 is a view similar to Fig. 2 showing a modification of the mounting clip, and its relationship to a pad or cushion.

Fig. 8 is a perspective view of a pad or cushion forming part of the invention.

In the application of plaster board, sheet lath and the like to a supporting structure, it is often desirable to fur out the board or sheet material from the supporting structure, for obvious reasons known to builders and other construction experts. In the past, the furring out of the board or sheet material was accomplished only at some considerable expense and with considerable difficulty, due generally to the character of means employed for the mounting of the board or sheet material. In many instances, the furring of the sheet material was accomplished with the employment of make-shift means for mounting and spacing purposes, thereby adding considerably to the expense in time and labor for such application of the sheets. By means of the present invention, the furring job is accomplished as easily as the conventional plaster board or lath sheet application directly to the surface of the support, so that furring the board or sheet from the support may now become the conventional form of construction, whereas heretofore it was considered special or exceptional construction.

With reference to the accompanying drawing, the characters 8 indicate the usual slabs of sheet lath, plaster board or other covering material, which are supplied in standard sizes so that they will meet at the joists or studding to be covered. In Fig. 5, 9 may indicate any overhead support, such as a joist or rafter whereas 10 indicates an upright support which may be termed the studding or the skeleton work of the wall. It should be understood that the supporting means 9 and 10 need not be of wood, but may be of any other material to which the board or sheet material is to be applied; however, for clarity of disclosure the supporting means may be considered wood or other material into which nails or other fastening means may be driven.

With reference now to Figs. 1 to 4 inclusive, the mounting clip of the invention comprises a single rectangular sheet of thin gauge metal slitted and pressed to form an open face frame 12 having longitudinal sides 13 and ends 14, each pressed to form a strengthening rib 15 to resist bending of the face frame during use of the clip. The face frame is divided into two halves by means of transverse nailing strut 16 which may be perforated as at 17 for the reception of nails or any other securing means. At right angles to the plane of the face frame, the material pressed from openings 18 of the frame, is formed to provide a pair of depending parallel legs 19 spaced apart a distance equal to the width of the nailing strut 16. The depending legs are integral with the nailing strut, and are slitted along the lines 20 and 21 so as to form outwardly extending arms, the arms being in pairs 22 and 23 disposed

at different elevations or distances from the plane of the face frame. The space between the arms 22 and the face frame, approximates the thickness of a plaster board or lath sheet, so that these arms may be properly referred to as board locating arms. The free ends of said arms may be turned slightly away from the face frame as indicated, to facilitate insertion of the board or sheet into the spaces between the arms and the face frame.

The spacer arms 23, which are at a greater distance than the arms 22 from the plane of the face frame, are struck from the same legs 19 that furnish the material for the locating arms 22. In the form of the invention shown in Figs. 1 to 6 inclusive, the arms 23 are so formed as to extend in the general direction of the frame ends 14, and the legs 19 at a location 24 intermediate the spacer arms and the face frame, are bent slightly away from one another, so that force applied to the face frame by nailing the mounting clip into position and indicated at 25 of Fig. 5, will cause the spacer arms 23 to advance toward the board or sheet embraced by the locating arms 22 and to clinch and hold the plaster board or sheet, all as clearly shown in Figs. 5 and 6. It should be noted that the spacer arms 23 perform the double function of clinching the board or sheet, and spacing it from the supporting structure 9. From the foregoing, it should be evident that application of the mounting clip for supporting the sheets or boards 8 in spaced relation to the supporting structure 9, is accomplished merely by driving the nail 25 through one of the openings 17 and into the supporting member, without necessitating any preliminary measuring, or the application of separate spacing means to the supporting structure. The substantial saving of time, material and labor at this stage of the work will readily be recognized. It will be noted also that the nail or other fastening means may be applied through any one of the openings 17 to compensate for any irregularity or imperfection in the supporting structure 9—10, and that different sizes and lengths of fastening means may be employed depending upon the nature or condition of the supporting means. For example, a soft or knotty wooden supporting structure 9 may require the use of one or more long or heavy nails in order to effectively support the board or sheet material, whereas a shorter or lighter nail may be used when the supporting structure is of hard or close grained material. Otherwise stated, the structure herein disclosed is characterized by its flexibility of application in the presence of difficulties or irregularities encountered in the mounting of the board or sheet. Unlike other mounting clips, the present clip does not require spotting at a definite location upon the supporting structure for the lath or plaster board.

It may here be noted that the ribs or depressions 15 at the various locations on the face frame not only provide the necessary strength to maintain the shape of the face frame, but they also provide for a line contact of the face frame upon the lath or board, thereby spacing the frame proper from the lath or board to permit plaster or other coating material to enter behind the frame so as to provide a bonded or keyed relationship between the plaster and the frame. The frame is thereby effectively embedded in the plaster, resulting in a substantial re-enforcement across the lath or plaster board joints.

In the modified form of Fig. 7, the mounting clip is identical with that of Figs. 1 to 4 inclusive, except that the spacer arms 230 are extended outwardly substantially at right angles to the legs 190, in substantial parallelism with the locating arms 220. The clip of Fig. 7 otherwise may be the same as the form of clip previously described herein.

In Figs. 5 and 7 are illustrated two methods of application of the mounting clip where the lath or plaster board sheets meet at an angle, or at a wall and ceiling joint. In Fig. 5, the clip has been bent at right angles along a line which includes a side edge of the transverse nailing strut, thereby to properly support one board or sheet flatly against its supporting structure 10, while the other board or sheet disposed at right angles thereto is supported in spaced relationship with its adjacent supporting structure 9. Both figures illustrate how the free ends of the spacer arms 23 turn toward the back of the board or sheet and grip it incident to nailing of the mounting clip upon the supporting structure. As will be understood, the mere nailing of the mounting clip in position results in clinching of the board or sheet by the spacer arm ends, while at the same time these arms determine the spacing of the board or sheet from the supporting structure.

Fig. 6 is distinguished from Fig. 5 in that the clip is bent at right angles upon a line passing through the centers of the nailing apertures 17, which disposes the legs 19 in such positions as to locate the spacer arms 23 for clinching the adjacent boards or sheets, and spacing each of them from its respective supporting structure 9 or 10. As will be understood, the clip of Fig. 7 is capable of the same character of bending as the clip of Figs. 1 to 4; so that it also may be used at the corner locations substantially as disclosed in Figs. 5 and 6. The clip of Fig. 7, however, would not ordinarily have its spacer arms turned to clinch the boards or sheets 8. In that form of the clip having the clinching function, the legs 19 may be bent slightly outwardly as indicated at 24 of Fig. 2, along a line adjacent and parallel to the lines formed by the bending of the locating arms 22 outwardly of the legs 19. The exact point 24 at which the spacer arms would be bent, however, would be determined by the character of metal and the length of the legs constituting the mounting clip. It may here be mentioned that each and every element indicated at 19, 22, and 23 is formed from the metal punched through to form the opening 18, there being no waste of material whatever, and no scrap to handle during the manufacture of the mounting clip. As before stated the entire clip is cut, pressed and shaped by means of a single stroke of the press. The low cost with which these clips may be manufactured and the highly effective duty that they perform, are items of particular interest and advantage to the trade, as is also the rapidity with which the clips may be applied for locating, holding, and spacing the sheet lath or plaster board material.

Attention is now directed to Figs. 7 and 8, which show the application of a pad or cushion 30 to the mounting clip. The purposes of the pad or cushion are to provide for acoustic and vibration control, by furnishing a resilient mounting for the lath or plaster board. The pad or cushion shown is particularly adapted for the type of clip herein disclosed, as it has a central transverse block portion 31 extending from the base 32 and adapted to enter between the legs 19 or 190 of the mounting clip. Being of fibrous or flexible

material, the block portion 31 will enter between the legs with a frictional or wedging action. The opposite ends of the base overlie the locating arms 22 (or 220 as shown in Fig. 7); the thickness of the base is such that it extends beyond the arms 23 or 230 and thereby forms the resilient mounting for the clip and the lath or plaster board sheet supported thereby. The width of the base 32 is such that its longitudinal side edges fit snugly between the legs 19 (Fig. 3) in contact along the lines 20 and 21. Thus, the clip and pad may be assembled into a composite unit which will not separate during handling or application of the clips, so that the padded clips may be handled and used with the same ease with which the clip alone may be handled and used. When the clip is equipped with the pad or cushion, the arms 30 and 230 act only as holders for the pad or cushion, and consequently the spacing or furring function of the arms is transferred to the pad or cushion. As will be understood, the nails or other securing means, used for mounting the clip and board, will penetrate the cushion or pad and thereby permanently hold it in proper position for all time. The cushion or pad has a vibration or noise deadening effect upon the nail as well as upon the clip and the lath or plaster board supported thereby. The arms 22 and 220 back the pad or cushion, as plainly shown in Fig. 7.

In conclusion, it may be stated that the clip of the invention may assume shapes other than the generally rectangular shape disclosed, and that various other modifications and changes in the structural details may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What is claimed is:

1. A mounting clip for sheet material to be applied to a supporting structure, said clip being of one-piece construction and comprising an open face frame adapted to overlie one face of the sheet material, means on the frame for spacing the frame uniformly from said face of the sheet material and providing a plaster-receiving space between the frame and such sheet material, said spacing means thereby disposing the frame edges at a distance from the sheet face to preclude the frame edges from cutting through the plaster along the line of bonding of the plaster with said sheet material, a nailing strut substantially spanning the frame from one side thereof to the other, and a pair of spaced legs extending from the nailing strut at an angle to the plane of the face frame, said legs including integrally formed sheet locating areas and spacer areas at different distances from the face frame, and within the limits of the length and width thereof, said legs, locating areas, and spacer areas all being formed from material struck from the face frame.

2. A mounting clip for sheet material to be applied to a supporting structure, said clip being of one-piece construction and comprising a face frame for overlying one face of the sheet material, means on the frame for spacing the frame from the underlying area of the sheet material and providing a plaster-receiving space between the frame and such sheet material, said spacing means thereby disposing the frame edges at a distance from the sheet material to preclude cutting of the frame edges along the line of plaster-bonding with the sheet material, a medial nailing strut spanning the frame from one side thereof to the other, said strut being bent lengthwise to dispose adjacent portions of the face frame at an angle to one another for application of the clip to a corner location, and a pair of spaced legs formed integrally with the nailing strut and extending from the strut rearwardly at substantially right angles to the plane of the face frame, said legs including abutment areas at different elevations upon said legs for holding the sheet in abutment against the face frame and for spacing the sheet, so held, from the supporting structure to be covered by the sheet.

3. A one-piece mounting clip for sheet material to be applied to a supporting structure, said clip comprising a thin-edged plate having opposed openings struck therein to provide a pair of spaced legs depending from the middle region of the plate, sheet locating and embracing arms bent outwardly in opposite directions from the legs at a distance from the plate approximating the thickness of the sheet material to be supported, and spacer arms likewise bent outwardly from the legs, but at a greater distance from the plate, for spacing the sheet from the supporting structure, the legs and arms all being formed from the material struck from the openings provided in the plate, and ribs pressed into the material of the plate along the edges of the openings, and in the direction of extension of the legs, to space the plate uniformly and in parallelism from the sheet material to be mounted, for establishing plaster-receiving channels beneath the plate both interiorly of the plate openings and exteriorly of the plate edges, to preclude the thin edges of the plate from shearing along the plaster-bonding plane of the sheet material.

4. A sheet metal mounting clip adapted for application to the corner portion of a supporting structure for the mounting of structural sheets, said clip comprising a one-piece element including a face portion bent transversely substantially at right angles and having at least two spaced apertures formed therein, a plurality of longitudinal ribs formed on the face portion of the clip and intercepting the line of bend substantially at right angles, said ribs serving to contact structural sheets to be mounted and to space the face portion of the clip from such sheets in substantial parallelism, to provide longitudinal plaster-receiving channels between such sheets and the face portion of the clip at opposite sides of the rib, and a pair of supporting legs extending from the face portion adjacent to said apertures, said legs being spaced apart and turned in opposite directions at an angle to provide arms for embracing a margin of a structural sheet and holding it in contact with the face portion of the clip, the material of the face portion between the apertures providing a strut through which fastening means may be driven past and between said legs, the legs at both sides of the strut being disposed with their arms in substantial parallelism with the plane of one only of the angularly disposed ends of the face portion.

5. A one-piece mounting clip for sheet material to be applied to a supporting structure, said clip comprising a plate having opposed openings struck therein to provide a pair of spaced legs depending from the middle region of the plate, and marginal edge portions, said portions including depressed ribs projected in the direction of extension of said legs for contacting the sheet material to be mounted, thereby to form plaster-receiving keyway channels between said sheet material and the marginal edge portions of the plate, sheet locating and embracing arms bent outwardly in opposite directions from the legs at

a distance from the plate approximating the thickness of the sheet material to be supported, and spacer means formed from the material struck from the plate to form the legs, said spacer means being located at a greater distance from the plate than are the sheet locating and embracing arms, for spacing the sheet from the supporting structure, the legs and the spacer means all being formed from the material struck from the openings provided in the plate.

6. A one-piece mounting clip for sheet material to be applied to a supporting structure, said clip comprising a plate having opposed openings struck therein to provide a pair of spaced legs depending from the middle region of the plate, and marginal edge portions of which two extend transversely of the legs, said portions including depressed ribs projected in the direction of extension of said legs for contacting the sheet material to be mounted, thereby to form plaster-receiving keyway channels between said sheet material and the marginal edge portions of the plate, the ribs in said two transversely extended marginal portions each being continuous from approximately one end of the plate to the other end thereof past said depending legs, sheet locating and embracing arms bent outwardly in opposite directions from the legs at a distance from the plate approximating the thickness of the sheet material to be supported, and spacer means formed from the material struck from the plate to form the legs, said spacer means being located at a greater distance from the plate than the sheet locating and embracing arms, for spacing the sheet from the supporting structure, the legs and the spacer means all being formed from the material struck from the openings provided in the plate.

7. A mounting clip for sheet material to be applied to a supporting structure, said clip being of one-piece construction and comprising a face frame for overlying one face of the sheet material, means in the form of ribs on the frame for spacing the frame from the underlying area of the sheet material and providing a plaster-receiving space between the frame and such sheet material, said spacing means thereby disposing the frame edges at a distance from the sheet material to preclude cutting of the frame edges along the line of plaster-bonding with the sheet material, a medial strut spanning the frame from one side thereof to the other, said strut being bent lengthwise to dispose adjacent portions of the face frame at an angle to one another for application of the clip to a corner location, the bend traversing the ribs at opposite sides of the frame, and a pair of spaced legs formed integrally with the strut and extending from the strut rearwardly at substantially right angles to the plane of the face frame, said legs including abutment areas at different elevations upon said legs for holding the sheet in abutment against the face frame and for spacing the sheet, so held, from the supporting structure to be covered by the sheet.

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