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Hilgers

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[54] **WALLBOARD BRACKET**

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Related U.S. Application Data

[63] Continuation of Ser. No. 325,901, Jan. 22, 1973, abandoned, and a continuation of Ser. No. 80,975, Oct. 15, 1970, abandoned.

[52] **U.S. Cl.** ..... **248/216;** 52/753 W

[51] **Int. Cl.**[2] **E04G 3/00**

[58] **Field of Search** ..... 248/216; 160/369; 85/11, 85/13, 15; 52/753 W, 753 Y, 753 J, 753 D, 753 C, 753 R

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[57] **ABSTRACT**

A bracket for use in backing up an edge portion of wallboard and the like, including a first body portion for engaging a side surface adjacent the edge of the wallboard, prongs for securing the bracket to a support member, and a tab bendable to engage the side surface of the wallboard opposite the side engaged by the first body portion for securing the wallboard between the first body portion and the tab.

8 Claims, 5 Drawing Figures

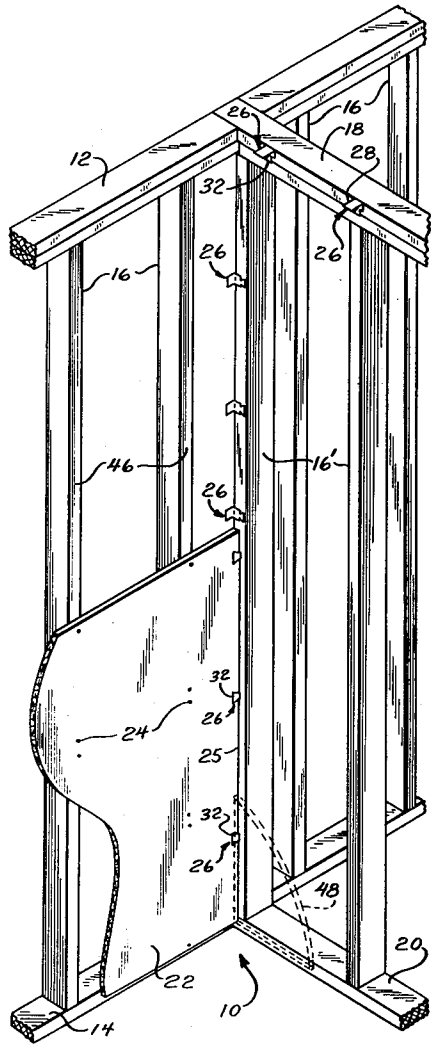


Fig. 2

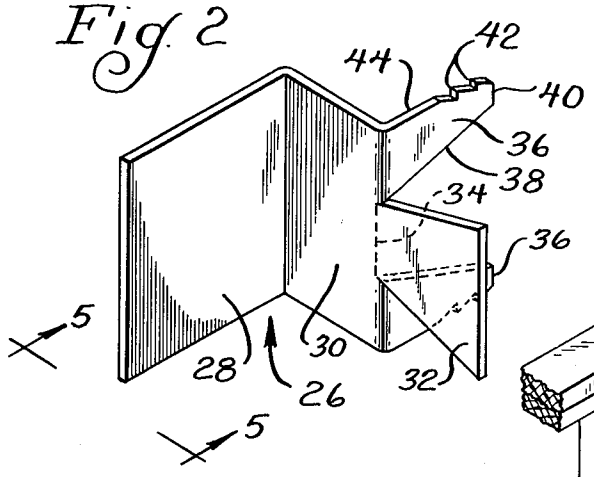


Fig. 1

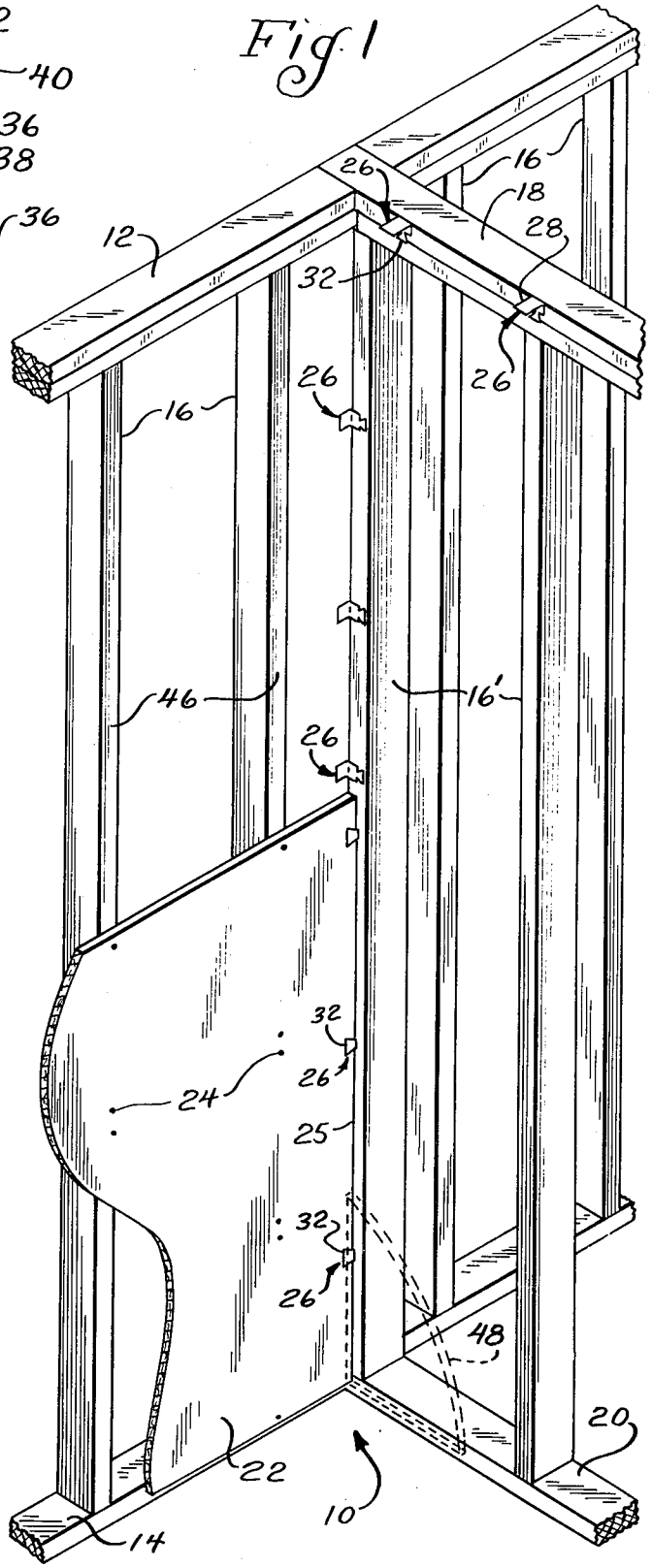


Fig. 3

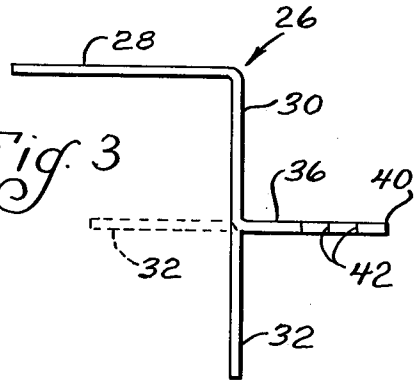
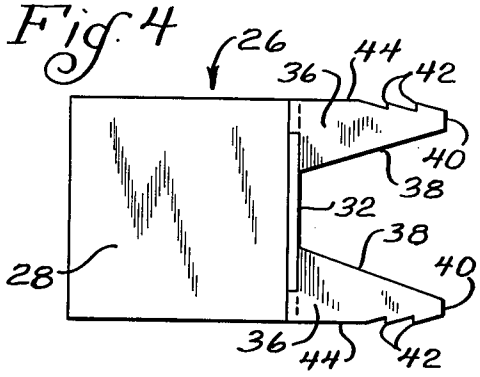


Fig. 4



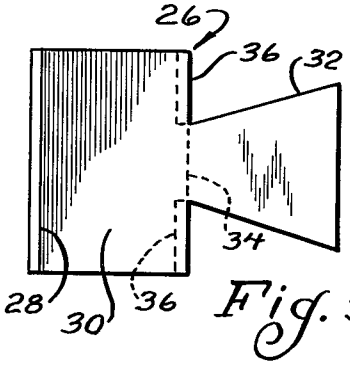


Fig. 5

WALLBOARD BRACKET

This is a continuation of pending application Ser. No. 325,901, filed Jan. 22, 1973, now abandoned and prior application Ser. No. 80,975, filed Oct. 15, 1970, now abandoned.

BACKGROUND OF THE INVENTION

The present invention relates generally to brackets for use in wall construction and the like, and more particularly to a bracket for backing up an edge portion of a wallboard adjacent a support member.

It is a common practice in the building construction industry, both in residential and commercial structures, to construct walls from gypsum board, generally termed drywall or wallboard, which is secured to a wooden frame structure. The frame structure generally comprises horizontal upper and lower plates having vertical studs secured therebetween, the studs being commonly spaced apart a distance of **16** inches center-to-center. When an interior partition or wall is to be constructed generally perpendicular to and intersecting an outer wall, or another interior wall, the end stud of the frame for the intersecting wall does not always intersect the outer or other interior wall at a position abutting one of the spaced studs within such other wall. Under these circumstances, when a wallboard is thereafter secured to the inner surfaces of the studs comprising the outer wall, the edge of the wallboard adjacent the end stud of the interior intersecting wall terminates at a position between the spaced studs of the outer wall, thus requiring back-up framing or lead-in posts against which the edge of the board may be secured. In addition to increasing the cost of construction, such back-up framing breaks the continuity of the normal stud spacing in the outer wall, thus requiring the cutting or chinking of insulation material which is normally inserted between the spaced studs. The added expense of providing the necessary back-up framing, as well as the delay time for installing such framing, substantially increases the cost to the buyer.

Attempts have been made to provide means for backing up the edge portions of wallboards without the need for the aforedescribed back-up framing or lead-in posts, but such prior means have exhibited disadvantages which the present invention has overcome. For example, one known bracket or clip for use in backing up an edge of a wallboard disposed between spaced studs is pressed onto the edge of the wallboard and thereafter secured to a stud in the adjacent intersecting frame structure through a nail or other separate means. These known clip-on brackets require that the edge of the wallboard be cut or trimmed to an exact dimension in order for the bracket to be disposed adjacent the stud to which it is to be secured, thereby increasing the time required to properly fit the wallboard and brackets to the cooperating supporting stud. In addition, the prior art brackets of this nature require time consuming positioning and installation of the separate bracket attaching means, such as nails.

SUMMARY OF THE INVENTION

One of the primary objects of the present invention is to provide a novel bracket for use in backing up an edge portion of a wallboard or the like, which bracket allows the wallboard to be quickly and readily secured to a supporting stud structure without the need for back-up framing adjacent the edge of the wallboard.

Another object of the present invention is to provide a bracket for use in backing up an edge portion of a wallboard and the like, which bracket includes prongs adapted to be driven into a supporting member such that the wallboard may be placed in abutting relation to a portion of the bracket and thereafter retained in fixed relation to the supporting member.

A further object of the present invention is to provide a bracket of the type described including a tab normally disposed in a position to allow the wallboard to be readily placed against a back-up portion of the bracket, which tab is thereafter bent to a position securing the wallboard between the back-up portion and tab.

Another object of the present invention is to provide a bracket as described wherein the prongs for securing the bracket to a support member are spaced to readily receive the tab portions of other brackets therebetwen and allow meeting of a plurality of brackets.

Still another object of the present invention is to provide a bracket for securing an edge portion of a wallboard in generally fixed relation to a support member, which bracket is secured to the support member prior to having the wallboard associated therewith such that a plurality of brackets are cooperable to secure the edges of the wallboard without requiring the wallboard to have a straight edge portion adjacent the support member.

Further objects and advantages of my invention, together with the organization and manner of operation thereof, may best be understood by reference to the following description taken in connection with the accompanying drawing, in the several figures of which like reference numerals identify like elements.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a partial perspective view of a wall frame structure having a wallboard secured to a portion of the frame with a vertical edge of the wallboard disposed adjacent a vertical support member and backed up by brackets constructed in accordance with the present invention;

FIG. **2** is a perspective view of one of the brackets illustrated in FIG. **1**;

FIG. **3** is a top plan view of the bracket shown in FIG. **2**, the tab being shown in its bent posistion in phantom lines;

FIG. **4** is a side elevational view looking in the direction of arrows **4—4** of FIG. **2**; and

FIG. **5** is a view looking in the direction of arrows **5—5** of FIG. **2**.

DESCRIPTION OF A PREFERRED EMBODIMENT

Referring now to the drawing, and in particular to FIG. **1**, I have illustrated my invention, by way of example, as being used in conjunction with a wall frame structure indicated generally at **10**. The wall frame structure **10** is illustrated as comprising a first wall frame structure including upper and lower horizontal plate members **12** and **14**, respectively, having a plurality of vertically extending, parallel, spaced studs **16** secured therebetween in a known manner. It is conventional in the building industry to space the vertical studs **16** a distance of sixteen inches, center-to-center. For purposes of illustration, the wall frame defined by

plates 12 and 14 and associated studs 16 may be considered the frame structure of an outside wall of a building.

The wall frame structure 10 includes a second wall frame constructed to intersect the outer wall frame structure defined by plates 12 and 14 at a position intermediate two parallel spaced studs 16 of the outer wall frame structure. The second wall frame may be considered the frame structure of an interior or transverse wall disposed perpendicular to the outer wall frame structure, and includes upper and lower horizontal plate members 18 and 20, respectively, having ends connected to the upper and lower plates 12 and 14 intermediate two vertically spaced studs 16 as illustrated in FIG. 1. The upper and lower plates 18 and 20 have vertically extending, parallel, spaced studs 16' secured therebetween in similar fashion to the studs 16. One stud 16' of the interior wall frame is positioned adjacent the outside wall horizontal plate members 12 and 14.

It is common practice to form the inner surfaces of walls by securing sheets of drywall or wallboard, such as gypsum board, a portion of which is shown at 22, to the inner edge surfaces of the horizontal plates and associated vertical studs defining the wall from structures through fastening means such as nails 24. The wallboard sheets 2 conventionally have inner and outer generally parallel planar surfaces and are normally commercially available in four by eight foot panels or sheets. Each of the length and width dimensions of the wallboard panels is thus divisible by sixteen so that generally the vertical edge portions of the wallboards are disposed in adjacent overlying relation to one of the vertical studs 16 or 16'. When a wallboard panel is to be secured to a wall support or frame structure which requires a length of wallboard of a dimension other than one divisible by 16, a vertical edge portion of the wallboard will be positioned intermediate two vertically spaced studs. For example, a vertical edge portion 25 of the panel 22 is shown in FIG. 1 as being positioned between the spaced studs 16 in the outer wall frame structure. With the vertical edge portion 25 of panel 22 so positioned, there is no stud 16 backing up the side surface of the panel adjacent the vertical edge portion 25. It has been common practice for a worker to install back-up framing rearward of and adjacent an edge portion of a wallboard panel such as edge portion 25, which is not immediately backed-up by one of the conventionally spaced studs 16 or 16', so that the back-up framing provides support means generally similar to one of the studs and to which the edge portion of the wall panel may be secured.

The present invention finds particular application in a situation such as that above described wherein a wallboard panel 22 is to be secured to a wall frame structure comprising horizontal plates 12 and 14 and associated vertical studs 16, and wherein an edge portion 25 is positioned intermediate two of the associated support studs 16. Noting FIG. 1, in this situation the edge portion 23 of the wallboard panel 22 is positioned adjacent a vertical stud 16' of the frame structure defining a wall which intersects the outer wall defined by studs 16. More particularly, the present invention is directed to bracket means for providing back-up support for the edge portion 25 of the panel 22 without requiring the installation of an additional back-up frame or lead-in post to which the edge 25 could be nailed.

The bracket means comprises a plurality of identical brackets each of which is indicated generally at 26. The brackets 26 are secured to the stud 16' adjacent the outer wall frame defined by studs 16 in spaced relation longitudinally along the length of stud 16. Each of the brackets 26 is made from generally flat sheet metal stock or other suitable material and includes a first generally planar body portion 28 providing a back-up surface to engage the outer surface of an associated wall panel 22 adjacent the edge portion 25 therof. The area of the first body portion 28 of each bracket 26 which engages the outer surface of the associated panel 22 may be of any selected areas, it having been found that a height of about approximately three-quarter inches, considered vertically in FIG. 4, and a width of about approximately 1 inch, considered horizontally in FIG. 4, provides sufficient area for such wallboard panel engagement. Each bracket 26 includes a web portion 30 formed integral with the first body portion 28 and lying in a plane perpendicular to the plane of the first body portion 28.

A tab 32 is formed integral with the web portion 30, thereby being attached to the first body portion 28 of the bracket 26, and is normally disposed in a plane coplanar with the web portion so as to be perpendicular to the plane of the first body portion 28. The tab 32 is bendable about a bend line, indicated in dash lines at 34, from its normal first position lying in a plane perpendicular to the first body portion 28 to a second position lying in a plane parallel to and spaced from the plane of the first body portion, as indicated in phantom lines in FIG. 3.

Each bracket 26 includes prong means comprising a pair of prongs 36 for securing the bracket to a selected one of the vertical studs or horizontal plates of the frame structure 10. The prongs 36 are preferably formed integral with the web portion 30 and lie in a plane parallel to the plane of the first body portion 28. The prongs 36 are formed to extend outwardly from the web portion 30 in a direction opposite from the direction of the first body portion 28. The prongs 36 are preferably formed from the same planar portion of stock as the tab 32, as by cutting or severing along edges 38 which are angularly inclined outwardly to define generally pointed end portions 40 on the prongs. Each of the prongs 36 has a plurality of barbs 42 formed in an outer edge surface 44 to assist in retaining the prongs 36 within the selected wooden stud 16 or 16' or plate 12 or 18, to which the bracket is attached. The prong means thus provide a means integral with the bracket for attaching the bracket to a support member without the need for separate securing means such as nails or the like.

Having described the brackets 26, their use in cooperation with a wallboard panel 22 to back up edge portions of the panel which are not disposed in overlying engaging relation to a vertical support stud, will now be described. For example, to effect such back-up of the edge portion 25 of the illustrated wallboard panel 22, a plurality of brackets 26 are secured in spaced relation along the edge surface 44 of the stud 16' adjacent the outer wall plates 12 and 14, as by driving the prongs 36 of each bracket 26 into the stud 16'. To this end, the prongs 36 are disposed in parallel spaced relation a distance sufficient to readily receive the tabs 32 of other brackets 26 therebetween allowing the brackets to be readily nested one to the other. In this manner, a plural-

ity of nested brackets **26** may be installed in a hammer mechanism (not shown) for selectively driving the prongs **36** of each bracket into the associated stud surface **44.**

The brackets **26** are secured to the associated stud **16'** prior to installing the wall panel **22,** with the first body portion **28** of each bracket lying in a plane containing the outer edge surfaces **46** of the vertical studs **16** to which the panel **22** is to be secured, and the tab **32** lying in a plane perpendicular to the first body portion **28.** A wallboard panel **22** is thereafter placed in position abutting the outer wall studs **16** with the edge portion **25** thereof adjacent the edge portion **44** of the outermost or end stud **16'** of the interior or transverse wall frame. The edge portion **25** of the wall panel **22** is caused to seat within the corners defined by the first body portions **28** and associated web portions **30** of the brackets **26.** The tab portions **32** are thereafter bent to their second positions as illustrated in FIG. **3,** such that each tab portion firmly engages the adjacent inner surface of the wall panel **22** to maintain the edge portion **25** of the panel in generally fixed relation relative to the stud **16'.** In this manner, it can be seen that the tabs **32** can be bent to their wall panel engaging positions for securing the wallboard panel between the tabs and their associated bracket body portions **28** without the need for the outermost edge portion **25** of the wall panel **22** to abut the bracket web portions **30.** This allows the wallboard panel to be backed up by the brackets **26** adjust the outermost stud **16'** without having to cut the edge **25** of the panel on an exact straight line. The wallboard panel **22** may be nailed or otherwise suitably secured to the inner edges **46** of the intermediate studs **16** of the outer wall frame structure either prior to or simultaneously with the bending of the tabs **32** of the brackets **26** to secure the edge portion **25** of the wall panel.

The length of each of the bendable tabs **32** of the brackets **26,** considered horizontally from the bend line **34** in FIG. **5,** is made to extend a distance slightly less than the thickness of the wallboard panels with which the bracket **26** are used. By so controlling the lengths of the bendable tabs **32,** a mating wallboard panel, shown in phantom at **48** in FIG. **1,** can be secured to the vertical studs **16'** defining the interior wall frame structure perpendicular to the outer wall, such that the edge of the wallboard panel **48** adjacent the wallboard panel **22** will overlie the bent tabs **32** associated with the panel **22** and hide them.

In addition to securing brackets **26** to the end stud **16'** for backing up the edge portion **25** of the panel **22,** I have illustrated brackets **26** as being secured to the upper horizontal plate member **18** of the wall frame structure **10** for backing up an edge portion of a ceiling panel (not shown) adjacent the horizontal plate member **18.** To this end, the planar portions **28** of the brackets **26** secured to the plate **18** are disposed in a horizontal plane and serve to engage the uppermost surface of the ceiling panel.

The above described brackets **26** provide a means for backing up an edge portion of a wallboard panel when the edge portion is disposed intermediate conventionally spaced vertical studs, thereby eliminating the need for separate backup framing between the spaced studs. In addition, the brackets **26** provide a means for backing up an edge portion of a wallboard panel without requiring the edge to be cut with such exacting straightness that it would abut the adjacent edge portion **44** of the end stud **16'** of the interior or transverse wall frame. Still further, the brackets **26** readily adapt themselves to nesting with a plurality of similar brackets whereby to facilitate stacking in a drive gun for securing them to selected vertical studs or horizontal plate members.

While I have described and illustrated a preferred embodiment of my invention, it will be understood to those skilled in the art that changes and modifications may be made therein without departing from my invention in its broader aspects.

I claim:

1. A bracket for use in securing an edge portion of a wallboard or the like to a support member, the edge portion being defined between generally parallel side surfaces, comprising a body including a first side surface engaging portion for engaging one side surface of said wallboard and a web portion lying in a plane generally perpendicular to the plane of said first side surface engaging portion formed integral with said first side surface engaging portion, a tab attached to said web portion formed integral with said web portion and normally disposed in an open position which permits movement of one face of the wallboard adjacent the first side surface engaging portion and the edge portion of said wallboard in abutting relation with said web portion, said tab being bendable to a second position lying in a plane parallel to and spaced from the plane of said first side surface engaging portion, and prong means disposed in a plane generally parallel to and spaced from the plane of the first side surface engaging portion and formed integral with said web portion for entry into said support member to bring the underside of the web portion into resting contact with said support member for support thereby, said tab being readily bendable to its said second position after said prong means are inserted into said support member and an edge portion of a wallboard is caused to engage said first body portion to thereby secure the associated edge portion between said first body portion and said tab to maintain the associated wallboard in generally fixed relation to said support member, said prong means and tab being formed from the same planar portion of stock to provide configurations which allow a plurality of the brackets to be stacked in nested relation when said tabs are in their said open positions.

2. A bracket as defined in claim **1** wherein said tab has a length dimension considered in a direction perpendicular to the plane of said first body portion and with said tab in its normal position, less than the thickness of a wallboard with which the bracket is to be used.

3. A bracket as defined in claim **1** wherein said prong means includes at least one prong connected to said web portion and lying in a plane generally perpendicular to the plane of web portion, said prong extending in a direction opposite to the direction of the first body portion considered relative to said web portion.

4. A bracket as defined in claim **1** wherein said tab member is normally positioned in a plane generally perpendicular to the plane of said first side surface engaging portion and wherein said prong means comprise two parallel spaced prongs connected to said web portion and lying in a plane perpendicular to the plane of said web portion, said prongs being spaced a distance sufficient to receive the tabs of other brackets therebe-

tween to allow the brackets to be positioned in nested relation one to the other.

5. A bracket for use in securing an edge portion of a wallboard or the like to a support member, the edge portion being defined between generally parallel side surfaces of the wallboard, comprising a body including a first side surface engaging portion for engaging one parallel side surface of the wallboard as moved thereagainst and a web portion bent approximately 90° to said first side surface engaging portion, a tab attached to said first body portion and normally disposed in a plane generally perpendicular to the plane of said first side surface engaging portion to permit movement of the edge portion in abutting relation with said web portion, said tab being defined by diverging edge surfaces considered along its length from its connection to said web portion and being bendable to a second position lying in a plane parallel to and spaced from the plane of said first side surface engaging portion, and a pair of parallel spaced prongs secured to said first body portion and shaped for entry under force into a support member to bring the under side of said web member into face contact with said support member for support thereby, said tab being readily bendable to its second position after entry of the prongs into said support member and movement of one surface of said wallboard into engagement with said first side surface engaging portion and the edge portion of the wallboard into abutting relation with the web portion of the bracket, said tab as moved to said second position thereby securing the associated edge portion of the wallboard between said first body portion and said tab to maintain the associated wallboard in generally fixed relation to the support member, said pair of spaced prongs and tab being formed from the same planar portion of stock with said tab separating said prongs to provide configurations which permit a plurality of the brackets to be stacked in nested relation when the tabs are in their normal planes.

6. A bracket as defined in claim 5 wherein said tab and said prong means are formed from a common section of said member by cutting said tab from a central portion of said central section to form diverging edges for said tab and considered along its length from its connection to said web portion, such that said tab will bend about its narrowest width at said web portion when bent from its first to its second positions, the divergent cut which provides said tab also providing a first and second prong member, each having one diverging edge surface to permit easier entry of the prong means into the support member.

7. A bracket as defined in claim 5 wherein said prong means comprises a pair of parallel spaced prongs which lie in a plane perpendicular to the plane of said web portion, said prongs having lengths shorter than the length of said first side surface engaging portion of said body, considered in a direction normal to the plane of said web portion.

8. A bracket for use in securing an edge portion of a wallboard or the like to a support member, the edge portion being defined between generally parallel side surfaces, comprising a body including a first side surface engaging portion for engaging one side surface of said wallboard and a web portion formed integral with said first side surface engaging portion and lying generally perpendicular to the plane of the first side surface engaging portion to permit movement of one face of the wallboard adjacent the first side surface engaging portion and the edge portion of said wallboard in abutting relation with said web portion, and a pair of spaced apart prongs disposed in a plane generally parallel to and spaced from the plane of the first side surface engaging portion, said first side surface engaging portion having a length which is greater than the length of said prongs as measured from said web portion, said prongs being formed integral with and extending perpendicular to said web portion in a direction opposite to said first side surface engaging portion, said prongs being adapted for entry into said support member to bring the underside of the web portion into resting contact with said support member to fixedly position said bracket to said support member and to provide firm backing for an edge of the wallboard when such edge is moved into contact with said first side surface engaging portion, said prongs being formed from an extension of a portion of the stock from which said web portion is formed, said bracket as thus configured thereby permitting a plurality of such brackets to be stacked in nested relation.

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