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W. MASSEY

2,966,705

INVISIBLE MEANS FOR ATTACHING PANELS TO WALLS AND THE LIKE

Filed April 30, 1954

2 Sheets-Sheet 1

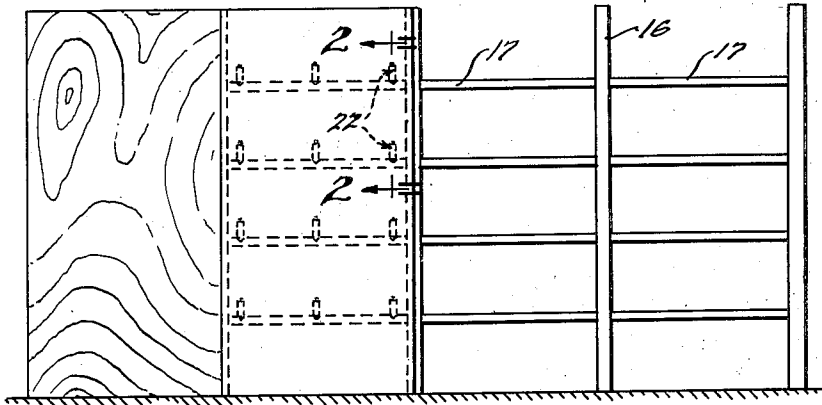


FIG. 1.

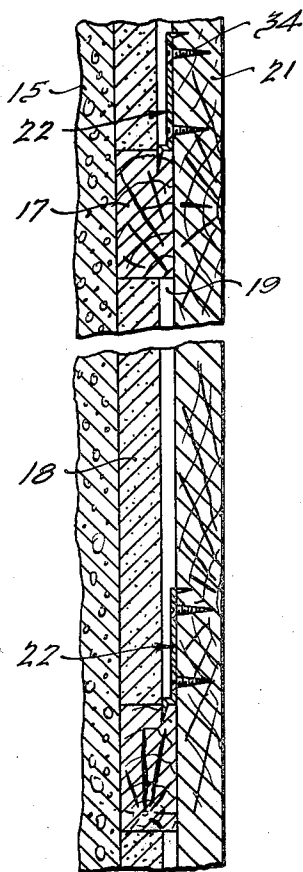


FIG. 2.

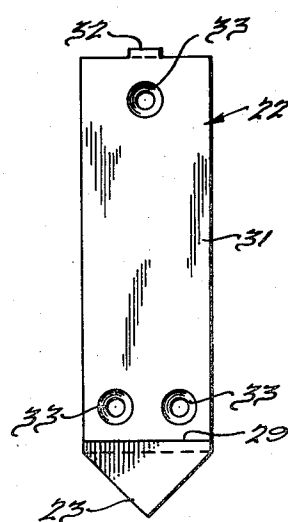


FIG. 3.

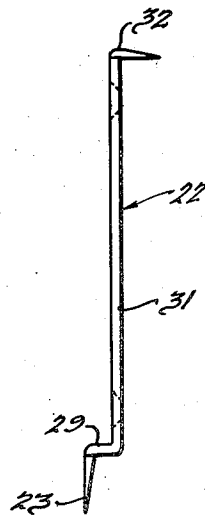


FIG. 4.

INVENTOR.

William Massey.

BY

Harnest, Dickey & Pearce
ATTORNEYS.

Jan. 3, 1961

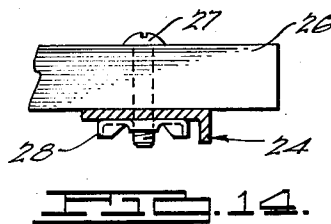
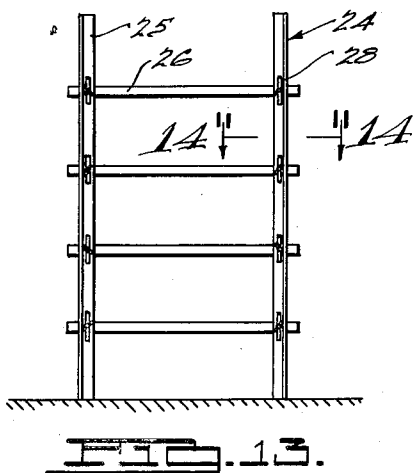
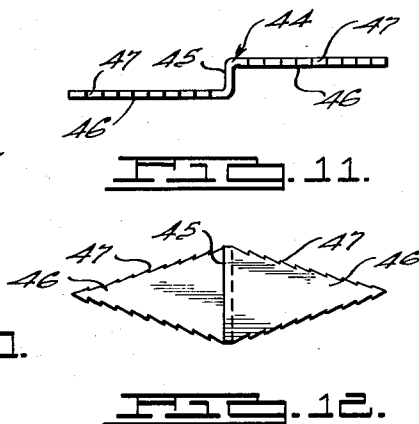
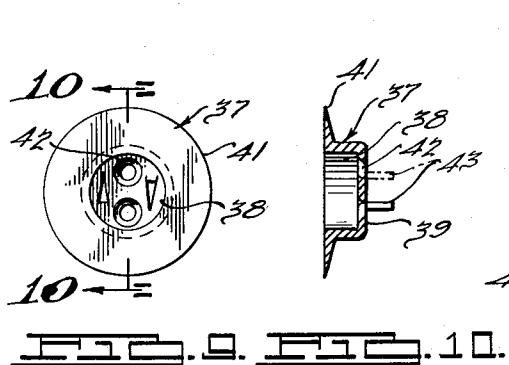
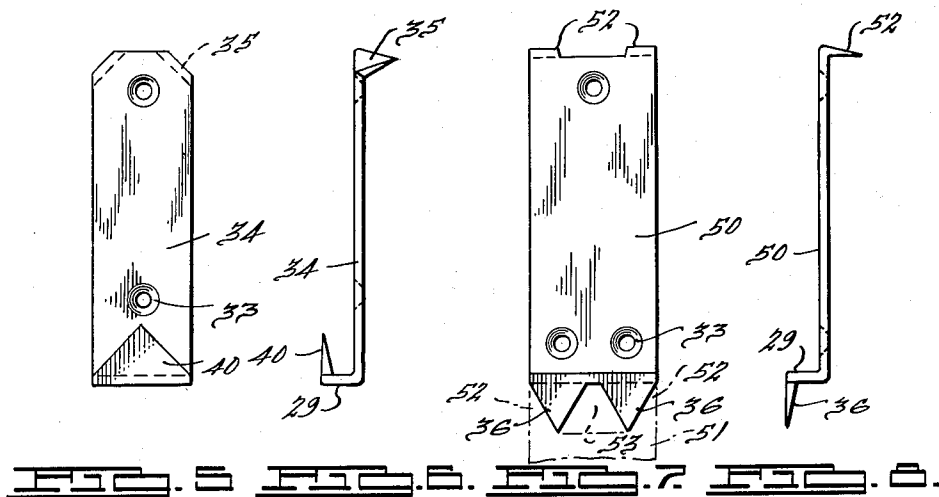
W. MASSEY

2,966,705

INVISIBLE MEANS FOR ATTACHING PANELS TO WALLS AND THE LIKE

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2 Sheets-Sheet 2



INVENTOR.

William Massey.

BY

Harnes, Dickey & Rouse
ATTORNEYS.

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2,966,705

INVISIBLE MEANS FOR ATTACHING PANELS TO WALLS AND THE LIKE

William Massey, 702 Harding, Detroit 14, Mich.

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3 Claims. (Cl. 20—4)

This invention relates to attaching means for panels, and particularly to attaching means applied to the back of the panels for securing the panels over a wall surface without marring the front surface of the panel.

It has been the practice in the past to secure panels to furring strips on a wall without puncturing or marring the visible face of the panels by the use of adhering materials which secure the panels to the furring strips. Such securing means, however, proved unreliable. The present invention pertains to brackets which are attached to the back face of the panels and so formed as to retain the panels on the furring strips.

Accordingly, the main objects of the invention are: to provide metal brackets for securing a panel to strips provided on a wall which are invisible from the front of the panel; to provide a bracket which is attached to the panel having a pointed knife edge which is forced into the furring strips or girts provided on a wall when the panel is shifted after being placed in position; to provide a frame which may be adjusted to the position of the furring strips and girts and employed thereafter as a template for marking a panel to accurately locate the brackets when attached to the panel before the panel is applied to the wall; and, in general, to provide a method and means for securing the panel to a wall from the rear of the panel which is simple in construction and economical of manufacture.

Other objects and features of novelty of the invention will be specifically pointed out or will become apparent when referring, for a better understanding of the invention, to the following description, taken in conjunction with the accompanying drawings, wherein:

Figure 1 is a view of a wall having supporting means thereon over a portion of the area of which a pair of panels has been applied;

Fig. 2 is an enlarged, broken sectional view of the structure illustrated in Fig. 1, taken on the line 2—2 thereof;

Fig. 3 is an enlarged view in elevation of a bracket as shown secured to the panel of Fig. 2;

Fig. 4 is an edge view of the structure illustrated in Fig. 3;

Fig. 5 is a view of structure, similar to that illustrated in Fig. 3, showing a different form of the invention;

Fig. 6 is an edge view of the structure illustrated in Fig. 5;

Fig. 7 is a view of structure, similar to that illustrated in Fig. 3, showing a further form of the invention;

Fig. 8 is an edge view of the structure illustrated in Fig. 7;

Fig. 9 is a view of an attaching means of the circular type;

Fig. 10 is a sectional view of the structure illustrated in Fig. 9, taken on the line 10—10 thereof;

Fig. 11 is an edge view of an attaching element which may be utilized for corner panels which cannot be shifted;

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Fig. 12 is a plan view of the structure illustrated in Fig. 11;

Fig. 13 is a view of a frame having bars thereon which may be adjusted to a position of alignment with the furring strips and girts on the wall; and

Fig. 14 is an enlarged, broken sectional view of the structure illustrated in Fig. 13, taken on the line 14—14 thereof.

Referring to Figs. 1 and 2, a wall 15 is illustrated having vertical strips 16 and horizontal girts 17 secured thereto. Plaster 18 positions and anchors the strips 16 and girts 17 in rigid relationship to each other and the wall. It will be noted that the face of the plaster is spaced from the faces of the strips and girts a distance 19 which is equal to approximately one quarter of an inch. The panels 21 which are to be applied to the wall have brackets 22 secured to the rear face thereof. The brackets are accurately positioned relative to the girts so that when the panel is positioned against the faces of the strips and girts and moved downwardly, the pointed sharpened end 23 of the bracket will bite into the girts and thereby securely anchor the panel to the wall.

In Figs. 13 and 14, an adjustable template 24 is illustrated embodying vertical uprights 25 and cross members 26 which are secured together by bolts 27. The bolts extend through slots 28 in the uprights 25, permitting the adjustment of the cross members 26 so that they can be accurately aligned with the girts to which the next adjacent panel is to be applied. After the bolts are tightened, the template may be placed upon the back of the panel and the cross members will function as templates to locate the position of the girts. In this manner the brackets 22 may be accurately secured to the back of the panel for the particular girts to which they are to be attached.

The sharpened point 23 of the bracket is offset from the body or web portion 31 by a right-angle flange 29. At the top, a bent-over flange 32, narrower than the body portion 31, is sharpened to have the point directed oppositely from the flange 29 so that it may be driven into the rear face of the panel. Apertures 33 through the body portion 31 have screws 34 extending therethrough into the rear face of the panel for rigidly securing the bracket thereto. The pointed sharpened ends 23 of the brackets bite into the top faces of the girts when the panel is forced downwardly until the flanges 29 strike the top of the girts and secure the panel in position against the outer faces of the girts and the strips. Wedges may be employed at the top edge of the panel to prevent it from moving upwardly from secured position. It is to be understood that additional strips 16 may be provided on the wall and that the brackets may be positioned to have the pointed sharpened ends 23 directed laterally so that a side movement of the panel will cause the ends of the bracket to bite into the sides of the vertical strips and retain the panel in position in the same manner as when the panels were moved downwardly. It is to be understood that the brackets could be located to have the pointed ends directed upwardly so that the panel must be moved upwardly to be secured in position in the same manner as when moved to either side and downwardly, as mentioned above.

In Figs. 5 and 6, a narrow bracket 34 is illustrated, having an aperture 33 near the top and bottom of the body portion and having the top corners 35 bent rearwardly, pointed and sharpened to form tongues which may be driven into the rear face of the panel. At the bottom of the body portion, the outwardly directed flange 29 has a pointed sharpened end 40 which extends upwardly parallel to the body portion in spaced relation thereto. When the panel is to be secured to the strips or girts, the bracket 34 is inverted when it is to function

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in the same manner as the bracket 31 to have the panel secured in position after it is in place by a downward movement thereof.

In Figs. 7 and 8, a bracket 50 is illustrated which is similar to the bracket 31 with the exception that a pair of pointed sharpened ends 36 extends downwardly from the projecting flange 29. An adjacent bracket 51 is illustrated in dot and dash line to disclose how tongues 52 are formed when the strap material is sheared, the central triangular portion 53 being severed from the strap material during the operation. The tongues 52 are bent rearwardly and sharpened, as clearly shown in the figures.

In Figs. 9 and 10, a cup-shaped type of bracket 37 is illustrated, having a cup portion 38, a web portion 39, and a circular sharpened flange portion 41. Apertures 42 are provided in the web 39 and a pair of tongues 43 is also provided in the web for driving into the rear face of the panel. In this construction, the sharpened edge 41 presents the biting edge in all directions so that the panel may be moved in any desired direction for biting into the uprights, girts and furring strips for securing the panel in position.

In Figs. 11 and 12, a securing element 44 is illustrated which is employed on corner panels which are prevented from being slid in a sideward direction. When the panel is slid in the vertical plane, it can be accurately positioned between a panel at the corner and the next adjacent panel and moved downwardly into securing position. When, however, the panels are secured in position by a lateral sliding movement, the end panel can employ the bracket 44 of Figs. 11 and 12. The bracket embodies a central web 45 having triangular-shaped end portions 46 containing teeth 47 at the sides which represent the outward movement of the bracket from the girt or strips, as well as the rear face of the panel when the girt and panel abut opposite sides of the web 45.

In any of the constructions, the brackets are secured to the back of the panel along lines conforming to the position of the girts located by the adjustable template 24. After the brackets are secured in position and the panel located against the upright, girts and furring strips, the downward, lateral, or upward movement of the panel sets the pointed sharpened ends of the brackets into the girts and securely anchors the panel against the wall. In this manner, panels may be secured in position without any damage whatsoever to the front face of the wall which occurs when nails are employed driven through the front faces of the panels.

It will be noted that the pointed projecting ends are tapered in a manner to cause the bracket to be pulled toward the wall, which tightens the panel against the faces of the strips and girts when moved in a direction to have the ends bite therein. The greater the degree of biting, the tighter the clamping of the panels occurs against the faces of the strips and girts.

What is claimed is:

1. A bracket for securing panels to furring strips on a wall, which includes in combination, a wall having fur-

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ring strips thereon, a panel, and a bracket having a flat web portion with a flange extending substantially perpendicularly from one face of said web portion and a sharpened end portion extending from said flange and disposed substantially parallel to said web portion, and means for rigidly affixing the other face of said web against the rear face of said panel to prevent all movement therebetween, said means including at least one sharpened projection projecting from said other face of the web portion and driven into the rear face of the panel, said sharpened end portion being driven into a surface of one of said furring strips which is disposed substantially perpendicular to the rear face of the panel so as to secure the panel to the furring strip, the length of said flange being equal to or less than the distance between said sharpened end portion and the exposed face of the furring strip which is disposed parallel to the panel so that the rear face of the panel is held tightly against the exposed face.

2. The invention as defined in claim 1 wherein the surface of said sharpened end portion adjacent to said panel is tapered so that the portion thereof adjacent to said flange is closer to said panel than the portion thereof furthest removed from said flange whereby as the sharpened end portion is driven into said furring strip it draws the panel toward the exposed face of the furring strip.

3. A bracket for securing a panel to a wall comprising a body having a flat web portion, a flange extending substantially perpendicularly from one face of said web portion, at least one pointed sharpened end portion extending from said flange substantially parallel to said web portion, said pointed end portion being tapered so that the portion near the point thereof is spaced a greater distance from said one face of the web portion than the portion thereof near said flange, said web portion having at least one aperture therein adapted to receive a screw-like element for rigidly securing the other face of the web portion to the rear face of the panel, and at least one sharpened point projecting from said other face of the web portion and adapted to be driven into the rear face of the panel.

References Cited in the file of this patent

UNITED STATES PATENTS

45	529,331	Lane	Nov. 13, 1894
	1,210,034	Bishop	Dec. 26, 1916
	1,320,303	Young	Oct. 28, 1919
	2,065,525	Hamilton	Dec. 29, 1936
50	2,066,813	Williams	Jan. 5, 1937
	2,108,831	Snyder	Feb. 22, 1938
	2,180,651	Williams	Nov. 21, 1939
	2,262,827	Wilson et al.	Nov. 18, 1941
	2,293,743	Miles et al.	Aug. 25, 1942
55	2,303,103	Adams	Nov. 24, 1942
	2,325,766	Gisondi	Aug. 3, 1943
	2,326,506	Tummins	Aug. 10, 1943
	2,596,181	Soderberg et al.	May 13, 1952
	2,833,001	Montefuleo	May 6, 1958