

[54] **PANEL SUPPORT BRACKET**
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 230 R, 201 S, 201 TR, 201 R, 81 CC, 81 PB,
 230 F; 339/74 R, 253; 52/753 J, 584; 403/329

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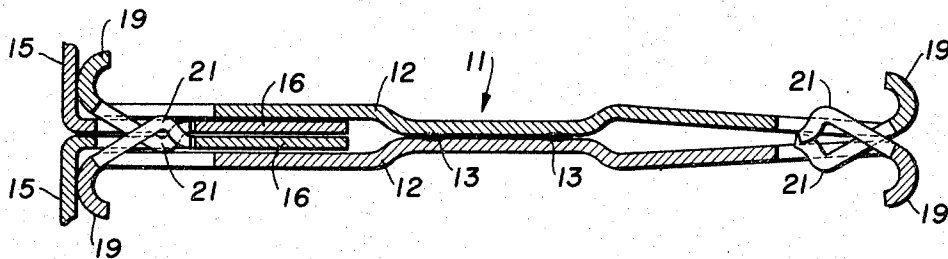
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[57] **ABSTRACT**

A bracket for holding a wall panel having an apertured tab wherein a pair of resilient elements secured in a back-to-back relationship cooperate to receive the apertured tab between the ends of the elements. The elements are provided with fingers which extend into the aperture in the tab to hold the tab and thus the panel in position. Each of the fingers is provided with camming surfaces positioned to be engaged by the tab for camming the fingers apart for insertion or removal of the tab.

2 Claims, 5 Drawing Figures



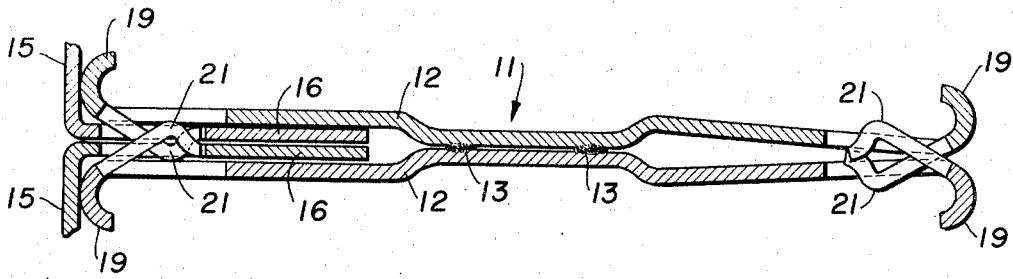


FIG. 1.

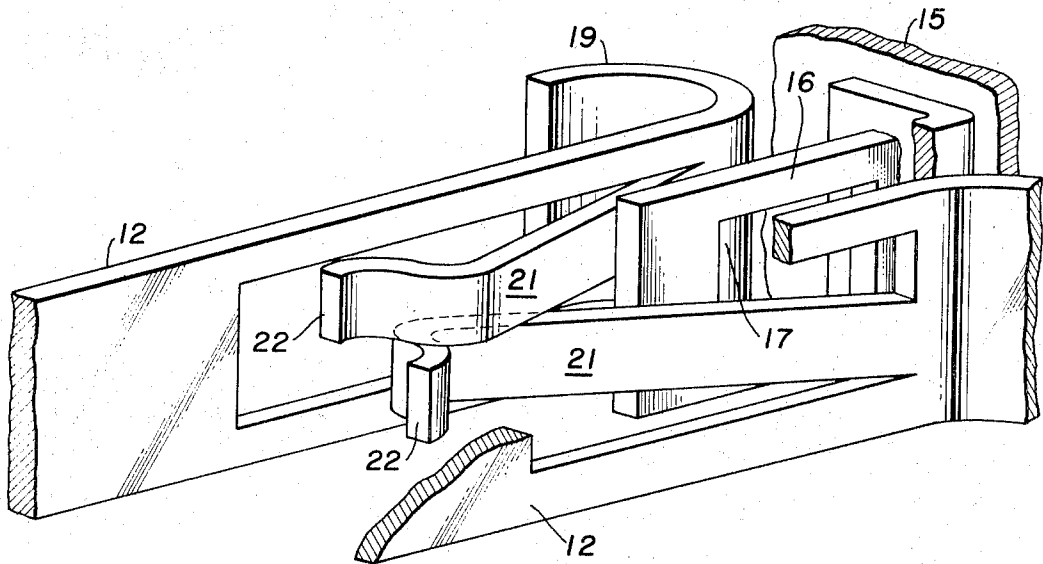


FIG. 2.

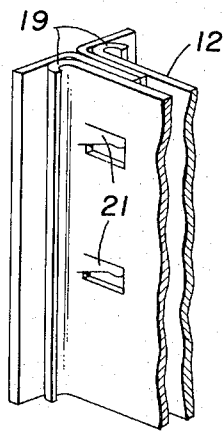


FIG. 5.

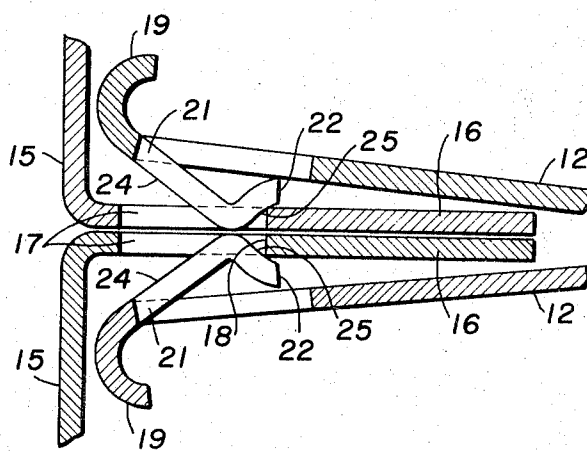


FIG. 3.

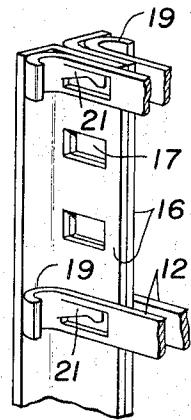


FIG. 4.

PANEL SUPPORT BRACKET

BACKGROUND OF THE INVENTION

Prefabricated walls and brackets or clips for holding these walls in position are known. Most of the known wall brackets have one disadvantage or another. Some do not lock into a holding position while others are held together by screws or other fasteners which can be removed only from the inside wall. Others are overly complicated requiring a maximum of effort in assembly.

Another object of this invention is to provide a panel holding bracket having camming surfaces positioned to be engaged by a portion of the panel to remove portions of the bracket from a locked position toward an unlocked position when the panel is to be attached to or removed from the bracket.

Still another object of this invention is to provide a wall panel holding bracket which can be quickly assembled to a panel or disassembled therefrom from a position outside the wall.

A still further object of this invention is to provide a wall panel holding bracket which not only holds the panels in position but at the same time can also provide rigid structural support for walls, ceilings, floors and roofs.

Other objects and advantages of the invention will become apparent when the following detailed description is read in conjunction with the appended drawing, in which

FIG. 1 is a horizontal cross-sectional view of one embodiment of the invention showing wall panels held in position at one end of the bracket,

FIG. 2 is a fragmentary perspective view showing the configuration and positioning of the fingers which hold a tab secured to a wall panel,

FIG. 3 is a fragmentary view showing the ends of the elements of the bracket in position to be cammed apart by a tab secured to a wall panel,

FIG. 4 is a fragmentary perspective view showing an elongated tab or flange held by a plurality of brackets, and

FIG. 5 is a fragmentary perspective view showing a bracket wherein the resilient elements are elongated and are provided with fingers at spaced intervals.

In one embodiment of the invention a pair of resilient elements are secured together in a back-to-back relationship and adapted to receive between the ends thereof an apertured tab secured to a wall panel. Each of the elements is provided with a finger positioned to extend into the aperture in the tab and thereby hold the tab when the tab is moved into position between the elements. Each of the fingers is provided with camming surfaces positioned to be engaged by tab for camming the fingers apart when the tab is moved into or out of its position between the elements.

Referring now in detail to the drawing there is shown a bracket 11 having two resilient elements 12 secured to each other in a back-to-back relationship, the elements 12 being secured together by spot welds 13 so positioned to leave the ends of the elements 12 flexible. The purpose of the bracket 11 is to rigidly hold one or more wall panels 15 each of which is provided with a tab 16 having therein an aperture 17, shown in the drawing as a rectangle. The tabs 16 may be an integral part of the panel 15 as shown in FIG. 1 and 3 or may be separate from but secured to the panel 15 as shown

in FIG. 2. The tab 16 may be narrow as shown in FIG. 2 or may extend the length of the panel 15 as shown in FIG. 4. The panels 15 may be made of any convenient material and make up the visible surface of the wall. The panels 15 may also be ceiling, floor or roof panels or even panels arranged to form a conduit.

Each of the elements 12 is provided with a curved end 19, the ends 19 being divergently concurred so as to guide the tabs 16 into position between the elements 12. Each of the elements 12 is provided with a finger 21 shaped as shown in the drawings.

Locking surfaces 22 on the ends of the fingers 21 are positioned to engage the walls of the apertures 17 in the tab 16 to hold the tabs in position, as shown best in FIG. 1, thereby holding the wall panels 15 in position. Each of the fingers 21 is also provided with camming surfaces 24 and 25. The surfaces 24 are so positioned that a tab 16 pushed into position between the elements 12 will engage the surfaces 24 and spread the ends of the elements 12 to allow the tab to move into the locked position best shown in FIG. 1. Thus, assembly of the wall panels is accomplished by merely pushing the tabs into position between the elements 12.

The camming surfaces 25 are provided for allowing removal of the tabs 16 from the locked position shown in FIG. 1. In the locked position the locking surfaces 22 engage the wall 18 of the aperture 17 in the tabs 16 to hold the tabs, and the panels 15, rigidly in place. In order to remove the wall panels a tool such as a putty knife (not shown) is manually inserted between the tabs 16 into engagement with the camming surfaces 24 to spread the elements 12 into the position shown in FIG. 3, whereupon the wall panels may be moved to bring the walls 18 of the aperture 17 into contact with the camming surfaces 25. Further movement of the wall panels 15 will cause the wall 18 of the aperture 17 to cam the elements 12 apart and allow removal of the tabs 16.

Each wall panel may be provided with several tabs 16 spaced along the edge or edges of the panel, with each tab being held in position by one of the brackets 11. Assembly of the wall is accomplished merely by placing two of the wall tabs 16 or flanges in abutment and pushing them into position between the elements 12. Disassembly of the wall is achieved by manually extending a putty knife (not shown) or like tool between the tabs 16 to cam the ends of the elements 12 apart to the point where the tabs can move into engagement with the camming surfaces 25. Further movement of the wall panels outward will cam the ends of the elements apart to allow removal of the wall panels.

As shown in FIG. 1, the elements 12 are secured together near their central portions and are free at their ends so that panels can be secured to each end of the bracket 11. Though the bracket shown in FIG. 1 is double-ended and can be used for double-walled construction, the bracket may also be single-ended where only a one-walled structure is desired. Instead of individual brackets an extended bracket (FIG. 5), as long as one or more panels, with a finger 21 or fingers at appropriate places along its length may be used. Such a bracket provides rigid structural support for walls, ceilings, floors or roofs besides securely holding the panels in place.

What is claimed is:

1. A bracket for holding a panel having an apertured tab extending therefrom, comprising a pair of resilient

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elements positioned in a back-to-back relationship, said elements being adapted to receive the tab of the panel therebetween, at least one of the elements having a finger adapted to enter the aperture in the tab, said finger having thereon a flat locking surface for engaging the wall of the aperture in the tab to thereby hold the tab, said locking surface lying in the plane of the tab and flat against the wall of the aperture in the tab when the resilient elements are closed on said tab so that the tab cannot be pulled out of its position between said elements, said finger having a first camming surface adjacent to said locking surface and adapted to be engaged

4

by the tab to cam the elements apart upon outward movement of the tab after the locking surface has been manually moved out of the plane of the tab, said finger also having a second camming surface adjacent to the first camming surface and positioned to be engaged by the free end of the tab to cam the resilient elements apart when the tab is moved inward between said elements.

2. The bracket of claim 1 wherein each of said elements is provided with a finger.

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