Nov. 29, 1966 F. KORN 3,287,871

BRACKET SECURING PANELS TO BACKING

Filed Aug. 5, 1963

Fig. 1

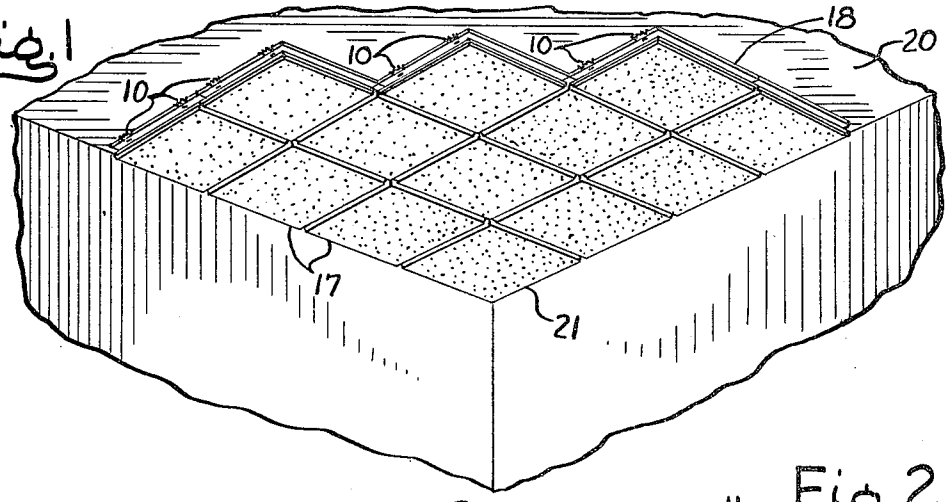


Fig. 2

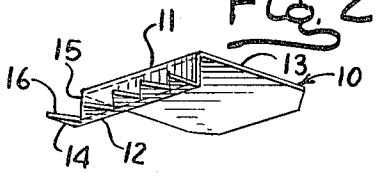


Fig. 3

Fig. 4

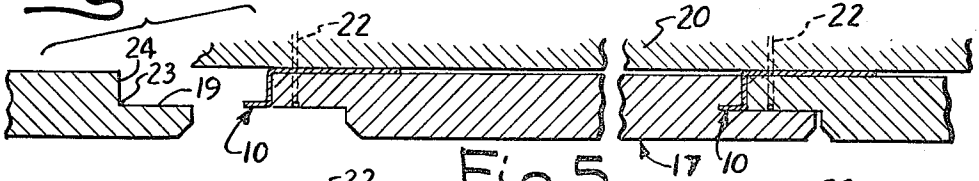


Fig. 5

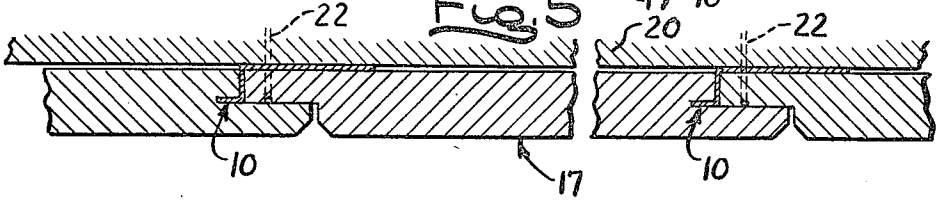
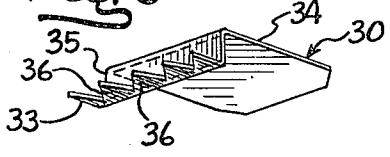


Fig. 6



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BRACKET SECURING PANELS TO BACKING

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This invention relates to a bracket, and more particularly to a bracket for securing surfacing panel units to a supporting surface, and their combination with acoustical and/or decorative wall and ceiling surfacing panel units.

Such panel units are commonly installed by providing interlocking, overlapping joints in adjacent panel units which can be nailed to a surface, the joint and fastener being covered by the adjacent panel unit. However, this method of installation has many disadvantageous features, for example, being fastened to the surface by the edge of only one of the adjacent panel units, the weight of the adjacent panel unit is supported by the interlocking joint alone which often weakens from the strain of the weight of the units and, after a period of time, permits the interlocking joint to disengage permitting the panels to sag, buckle and fall from the supporting structure. Frequently, such conditions can be remedied only by replacing the panel units or by inserting fasteners through the surface of the panel unit, thus detracting from the aesthetic and decorative effects of the units.

Hence, there is a presently existing need for a means and method by which acoustical and/or decorative wall and ceiling surfacing panel units can be secured to a supporting surface or backing without relying solely on the strength of the interlocking joints of adjacent panel units.

Therefore, it is one object of the present invention to provide a device for securing surfacing panel units to a backing, said device being hidden from view after installation of the units.

It is another object of this invention to provide a surface of panel units secured to a supporting surface with a device therefor independent of the strength of the interlocking joint formed by adjacent surfacing panel units.

These and other objects and advantages of the present invention will be apparent from the following specification and accompanying drawings, wherein:

FIG. 1 is a fragmentary view diagrammatically illustrating the application of brackets of this invention in securing surfacing panel units to a supporting structure.

FIG. 2 is a perspective view of the bracket of the present invention.

FIG. 3 is a fragmentary exploded view of adjacent surfacing panel units illustrating their positioning and the placing and fastening of the bracket in securing the units to a supporting surface.

FIG. 4 is a fragmentary section of several panel units secured by the use of brackets of the present invention and the positioning of another panel.

FIG. 5 is a fragmentary section similar to FIG. 4, but illustrating the panel units secured to a backing by the brackets of the present invention.

FIG. 6 is a perspective view similar to FIG. 2 of another embodiment of the bracket of the present invention.

Referring to the drawings, bracket **10** of the present invention comprises a substantially double L-shaped member composed of sheet material, which may be plastic, but is preferably composed of rigid sheet material, such as sheet metal. This double L-shaped member can be formed from a rectangular strip of sheet material bent at right angles along spaced parallel lines **11** and **12** providing two legs **13** and **14** and a riser **15**. One leg **14** of bracket **10** terminates in a serrated or toothed edge **16**. Leg **13** preferably is substantially longer than leg **14**. It is also preferred that riser **15** be perpendicular to legs **13** and **14**.

In the application of the brackets of the present invention various types of surfacing panel units may be utilized and which conventionally are of light weight cellular material. However, the brackets of the present invention are particularly useful in securing wall and ceiling acoustical and decorative panel units **17** having an adjacent pair of undercut back flanges **18**, and an adjacent pair of overhanging face flanges **19**, the flange **18** of one panel unit and the flange **19** of an adjacent panel unit being disposed to form a lap-joint therebetween. For utilizing these panel units, it is preferred that riser **15** of bracket **10** have a height approximately equal to the thickness of flanges **18** of the said units. The following description of the application of brackets **10** will utilize such preferred panel units.

In securing surfacing panel units **17** to supporting surface or backing **20** utilizing brackets **10** of the present invention, a first unit **21**, which usually is a corner unit and can be identical to unit **17** as illustrated in FIG. 1, is secured to backing **20** either by known means or as hereinafter described. It is within the scope of the present invention to secure the first unit **21** to supporting surface **20** by fastening one or a plurality of brackets **10** through leg **13** directly to the supporting surface **20** and thereafter forcing the first surfacing panel unit **21** against brackets **10** as will be subsequently described.

After the first unit **21** is secured, one or a plurality of brackets **10** are placed at spaced intervals along the undercut back flame **18** on at least one edge of unit **21** by inserting leg **13** of brackets **10** between the said flange **18** and the backing **20** until riser **15** abuts the edge of flange **18**. Suitable fastener means, such as a nail or screw (not shown), and preferably a staple is driven through flange **18** and into backing **20** at a point on flange **18** positioned so that the fastener means **22** will pass through leg **13** of bracket **10** securing both the flange and the bracket **10** to backing **20**. The next surfacing panel unit **17** is secured by holding the unit **17** against supporting surface **20** and forcing one edge thereof having an overhanging face flange **19** against undercut back flange **18** of the preceding surfacing panel unit. This forces the serrated edge **16** of leg **14** of the bracket **10** into the body of panel unit **17** being secured at the junction **23** of overhanging face flange **19** thereof, until the body of the panel **24** abuts the riser **15** of the bracket **10**, and the overhanging face flange **19** of one unit covers at least a substantial portion of flange **18** of the preceding unit and the head of the fastener means or the hole or mark left therein, forming a lap-joint therebetween. This operation is repeated inserting brackets **10** under the flange **18** of the previous unit and abutting the succeeding unit until the portion of supporting surface **20** desired to be covered is covered with surfacing panel units **17**.

In the preferred embodiment of the present invention as illustrated in FIG. 6, the bracket **30** is substantially the same as the bracket **10** heretofore described in that it comprises a substantially double L-shaped member having two legs **33** and **34** and a riser **35**, but additionally leg **33** has its teeth formed with longitudinally extending ridges **36**. The serrated edge formed of longitudinally ridged teeth provides greater strength and holding effects in the surfacing panel units, than does the previously described serrated edge.

Although I have shown and described the preferred embodiment of my invention it will be understood by those skilled in the art that changes may be made in the details thereof without departing from its scope as comprehended by the following claim.

I claim:

A surface composed of a plurality of rectangular panels secured to a backing, each of said panels including an adjacent pair of overhanging face flanges and an adjacent

pair of undercut back flanges, an overhanging flange of one of said panels overlying an undercut flange of an adjacent panel to form a lap-joint therebetween, and at least one bracket disposed within the confines of each lap-joint, said brackets being of substantially double L-shape with one of their legs of serrated edge character, said serrated leg being projected into the body of one panel at the junction of its overhanging face flange, and the opposed leg overlying the rear of the undercut back flange of an adjacent panel, and fastener means extending from said undercut flange through its overlying bracket and into said backing.

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