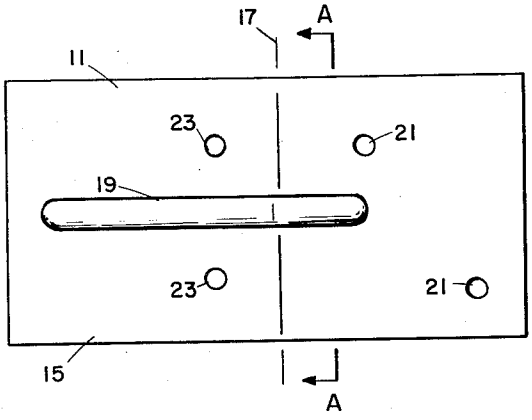
Aug. 7, 1962 C. L. MURPHY 3,047,985

PANEL TIE

Filed May 6, 1957

FIG. 1



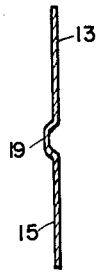


FIG. 3

A-A

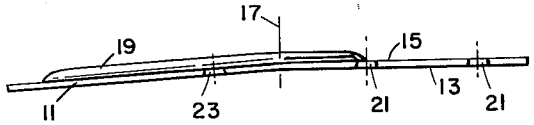


FIG. 2

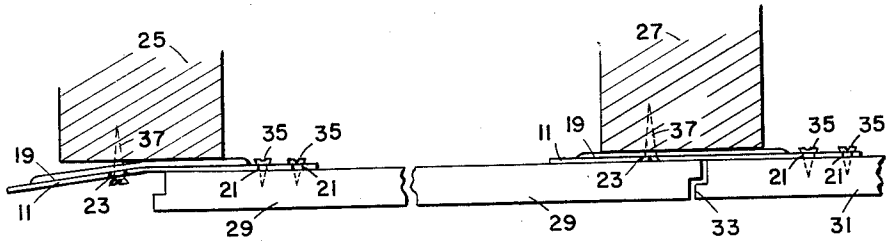


FIG. 4

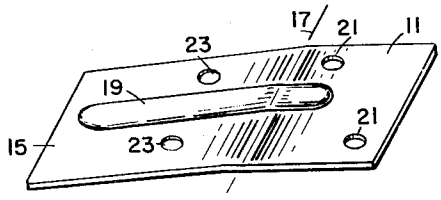


FIG. 5

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3,047,985
Patented Aug. 7, 1962

3,047,985

PANEL TIE

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Filed May 6, 1957, Ser. No. 657,338
1 Claim. (Cl. 50—395)

This invention relates to a panel tie.

An object of this invention is to provide a tie, or fastener, specially designed for securing panels to a wall supporting structure.

Another object of the invention is to provide a panel tie which is of sufficient flexibility to allow movement of the panel due to variations in temperature and humidity without disrupting the tie.

It is another object of the invention to provide a panel tie which will be completely concealed by the panel.

A still further object of the invention is to provide panel fastening means of such construction as to facilitate the erection of the panel on a wall supporting structure and which will allow removal of the panel without injury thereto.

Other and incidental objects of the present invention will be apparent to those skilled in the art from a reading of the following specification and an inspection of the accompanying drawings in which:

FIGURE 1 shows a front view of a panel tie in accordance with the present invention,

FIGURE 2 shows a top view of the panel tie of FIGURE 1,

FIGURE 3 shows a sectional view of the panel tie of FIGURE 1 taken along the line AA,

FIGURE 4 shows a sectional view showing panels secured to a wall supporting structure by means of panel ties in accordance with the present invention, and

FIGURE 5 is a perspective drawing of the panel tie of FIGURES 1, 2 and 3.

Reference is now made to the drawing wherein like reference numerals designate the same parts in each of the figures. The panel tie comprises a rectangular plate 11 having an inner side 13 and an outer side 15. The plate 11 is made of resilient material such as twenty-two gauge stainless steel and is bent slightly about an axis 17 so that the inner ride 13 of plate 11 forms about axis 17 an angle slightly smaller than 180°. The plate 11 is provided with a ridge 19 which is positioned on the outer side 15 of plate 11. Ridge 19 may be made by stamping the plate 11. The plate 11 is provided with holes 21 on one side of axis 17 and with holes 23 on the other side of axis 17. Holes 21 are preferably aligned at an angle with the ridge 19, while holes 23 are preferably perpendicular thereto.

Particular reference is now made to FIGURE 4 of the drawing which shows studs 25 and 27 which form a part of the wall supporting structure upon which panels 29 and 31 are to be mounted. When mounting panels with the panel ties of the present invention, the end panel (for instance the one at the extreme right) is mounted in a conventional manner. For instance the panel at the extreme right may be mounted by means of clips having keyhole slots, the clips being secured to the panel and mounted on screws driven into the stud. The next panel 31 has its right end slipped behind the left hand edge of the end panel, the two panels forming a shiplapped joint 33. The panel tie in accordance with the present invention is secured to panel 31 by means of screws 35 which are

driven through holes 21. The panel 31 is then secured to the stud 27 by means of two screws 37 which are driven through the holes 23 of the panel tie. Screws 35 and 37 may be countersunk into the plate 11, or the studs may be scored where the panel ties are to be placed to allow enough space for the heads of screws 35 and 37. The right end of the next panel 29 is slipped behind the shiplapped joint 33 and the left end of panel 29 is secured to stud 25 in the same manner as the left end of panel 31 is secured to stud 27. This process is used until the extreme left hand panel is reached, which panel is mounted to the wall supporting structure in the same fashion as the extreme right hand panel.

The bend 17 in the rectangular plate 11 tends to make panel 29 pivot about bend 17 when the screws 37 are tightened. The right end of panel 29 moves away from stud 27. This motion, however, is checked by the shiplapped end of panel 21. This allows a certain amount of play in the paneling and provides for some movement of the individual panels due to variation in temperature and humidity conditions without disrupting the ties to the studs. Other advantages of applicant's invention are that the paneling may be mounted easily and without visible nails or screws, and easily removed and reused.

I claim:

In a building construction, an assembly comprising first and second studs, a first panel, a resilient plate overlapping said first stud on at least one side thereof, said plate having a ridge therein which is perpendicular to said first stud, said plate being bent slightly about an axis perpendicular to said ridge, said axis being so positioned that said ridge extends on both sides of said axis, means located on one side of said axis attaching said plate to said first stud so that the ridge faces said first stud and that the portion of said plate on the other side of said axis tends to move away from said first stud, means attaching one end of said first panel to the last-named portion of said plate whereby the other end of said first panel is floating and tends to move away from said second stud, and means to restrain the motion of the floating end of the first panel away from said second stud, said last-named means comprising a second panel having one end affixed to said second stud, the end of said second panel forming a shiplapped joint overlapping the floating end of said first panel.

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