

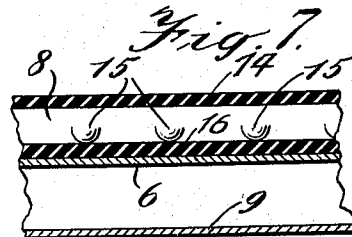
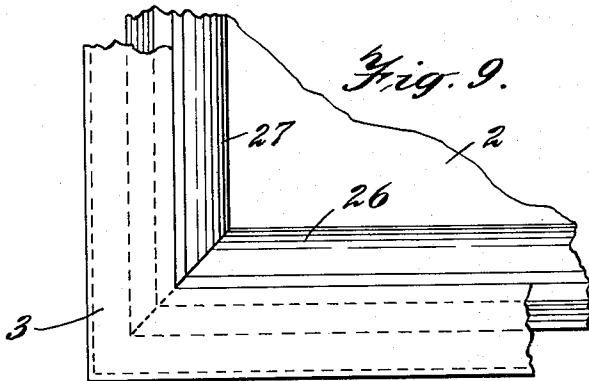
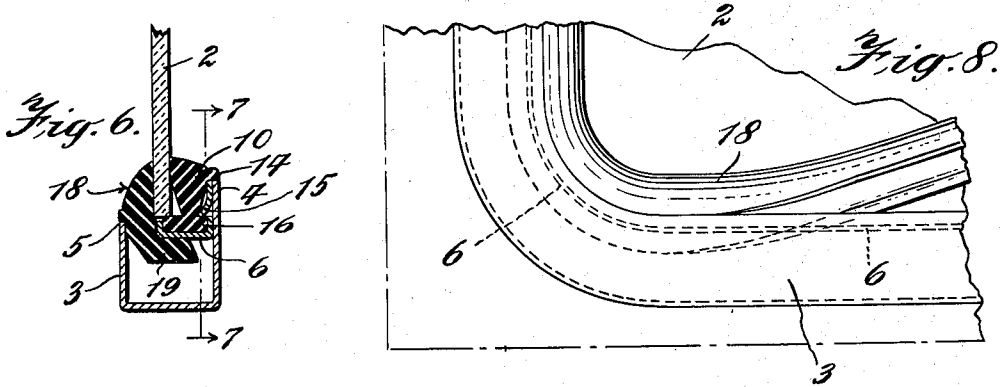
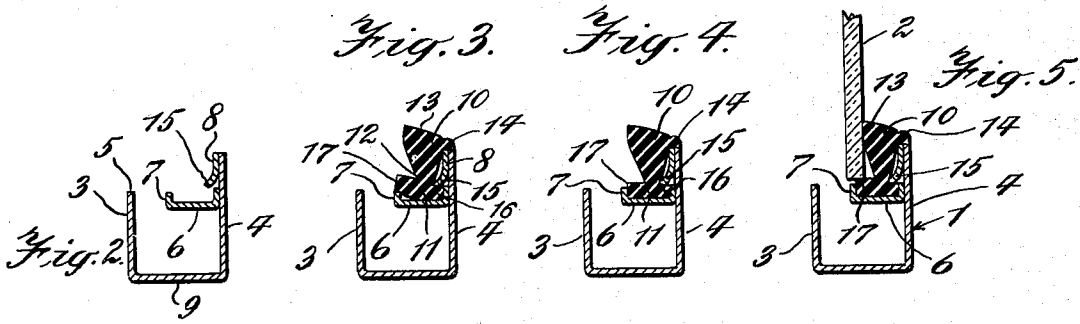
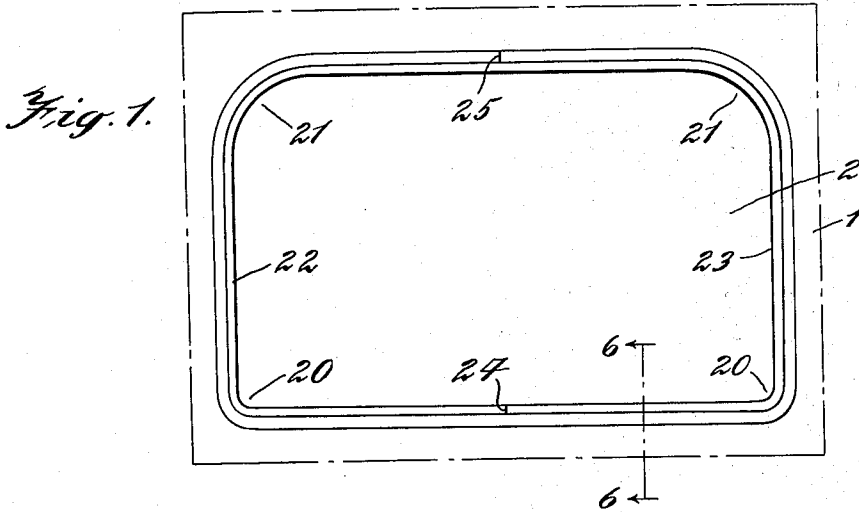
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L. G. HUNTER

2,030,874

MOUNTING FOR PANELS

Filed March 13, 1934



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# UNITED STATES PATENT OFFICE

2,030,874

## MOUNTING FOR PANELS

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12 Claims. (Cl. 20—56.4)

This invention relates to a novel and improved form of mounting for panels and relates to the same general type of mounting as that disclosed in my Patents 1,891,932 and 1,892,104.

In the accompanying drawing, in which I have shown a selected embodiment of the invention:

Fig. 1 is a face view of a panel having my invention applied thereto;

Figs. 2, 3, 4, 5, and 6 are views taken approximately on the line 6—6 of Fig. 1 and showing the different steps in the assemblage of the various parts;

Fig. 7 is a section on the line 7—7 of Fig. 6;

Fig. 8 is an enlarged view of one corner of a panel having my invention applied thereto;

Fig. 9 is a view similar to Fig. 8 but showing a sharp corner instead of a rounded one as in Fig. 8.

My invention has particular utility when employed with frames having openings to be closed by glass or other panels and more particularly still where such frames are made of steel so that it is difficult to provide fastening means which can be readily installed and removed and which at the same time shall have ability to hold the panel firmly in place without becoming loose. In the illustrated embodiment, I have shown a frame 1 having an opening closed by a panel 2 which is of smaller size than the opening. The frame adjacent the edge of the panel comprises front and rear walls 3 and 4, the edge 5 of the front wall bounding the opening which is closed by the panel and which, as noted above, is of larger size than the panel.

In further description, I shall for convenience refer to the edge of the panel as a basis for comparison and shall use such expressions as "inner" and "outer" to describe the relation of different parts with respect to the edge of the panel. That is to say, parts described as disposed inwardly of the panel edge are those parts nearer the center of the panel than that edge. Similarly, the wall 3, I will term for convenience the front wall, and the wall 4 the rear wall of the frame surrounding the opening.

Extending forwardly from the rear wall 4 is a shelf 6 having an upturned flange 7 at its forward edge. The top edge of this flange is substantially opposite the edge 5 of the wall 3, and the wall 3 and the flange 7 define a throat between them. The shelf 6 may conveniently be provided with a rear flange 8 extending upwardly and in close contact with the wall 4 to which it may be secured as by spot welding, and the walls 3 and 4 may be integral with the bottom

9 which, with the walls 3 and 4, forms a channel-shaped member.

The invention will probably be best understood by now describing the insertion of a panel in the frame opening, and for that purpose reference is made to Fig. 3 wherein I have shown a backing strip 10 having a foot 11 adapted to fit onto the shelf 6 between the flanges 7 and 8 thereof. As shown in Fig. 3, in which the strip is shown substantially in its normal condition, the width of the foot is greater than the distance between these flanges 7 and 8, so that it must be compressed when placed in position therebetween. The backing strip is likewise provided with a narrow neck 12 connecting the foot to a head 13 having a shoulder 14 adapted to contact with the upper edges of the wall 4 and flange 8. The flange 8 is provided with a plurality of forwardly extending lugs 15 which may conveniently be struck out of the metal of which the flange is made, as plainly shown in Figs. 2 to 7, inclusive. The backing strip 10 as appearing in Fig. 3 has been forced outwardly into such a position that the heel 16 of the foot engages beneath the lugs 15, and the toe 17 of the foot contacts with the top edge of the flange 7. The shoulder 14 also engages the edge of the rear wall 4. The toe 17 is then forced down against the shelf 6, where it is held by the flange 7, between which and the rear wall the entire foot is thus compressed, as shown in Fig. 4.

The next step is shown in Fig. 5, wherein the panel 2 is placed in position against the head 13 of the backing strip and is rested upon the toe 17.

The final step is shown in Fig. 6, wherein a facing strip 18 is forced into position against the front face of the panel 2. This strip 18 is the same in all essential particulars as that more fully shown, described, and claimed in my aforesaid Patent 1,891,932, to which reference is made for further details thereof. For the present purposes, it is probably sufficient to say that this strip is compressed between the edge 5 of the wall 3 and the front face of the panel 2, and that it has a foot 19 which engages beneath the shelf 6 to prevent inward displacement.

When in the position shown in Fig. 6, it will be seen that because of the compression of the facing strip, the panel is forced rearwardly against the backing strip 10, and the backing strip is thus placed under compression between the panel and the rear wall 4. The narrow neck 12 permits a certain bending of the head 13 backwardly, and this increases the pinching action which takes place between the shoulder 14 and

the top edge of the rear wall 4. In other words, this shoulder 14 and the heel 16 act in opposite directions against the upper edge of the wall 4 and the lower edges of the lugs 15, respectively. The distance between the heel and the shoulder is such as to normally give such a pinching action even when the panel is not in place, and then when the panel is put in place and the facing strip is also applied, this pinching action is increased. The panel edge is shown as in contact with the toe 17 of the foot, and it will be seen that the thickness of this toe is greater than the depth of the flange 7, so that the panel will not come in contact with that flange.

The above described construction is one which is particularly adapted to use where it is desired to quickly place in position and firmly hold a glass panel in a metal frame. The use of adhesive is avoided, and the panel is tightly held between two strips which are preferably of soft rubber or rubber composition. The two strips 10 and 18 may be placed in position very readily by starting one end thereof in a manner more fully described in my aforesaid Patent 1,891,932, in which the putting in place of the facing strip is fully described. The backing strip is placed in position in a similar manner to that described in said patent, the heel 16 being snapped under the lugs 15 and the toe 17 being pressed into the space rearwardly of the flange 7 in a very expeditious manner.

The construction is likewise one which is of advantage where the frame opening is provided with rounded corners, such as shown in Fig. 1 where the numeral 20 designates two lower corners of relatively short radius, and the numeral 21 designates two upper corners of relatively large radius. This figure is intended to show the flexibility of the invention and its adaptability to corners of different radii. I have shown two sections 22 and 23 of the facing strips meeting at the points 24 and 25. If desired, one continuous strip may, of course, be used in place of the two, and what I have just said about the facing strip is, of course, true of the backing strip. The construction of the shelf 6 and parts integral therewith is such that it likewise may be carried around a corner, as shown in Fig. 8.

On the other hand, the invention is of equal applicability to a square, sharp corner such as shown in Fig. 9, where two separate facing strips 26 and 27 are shown meeting at such a corner. The backing strips will, of course, meet in a like manner at that corner.

Another advantage of the invention is that the shoulder 14 may conveniently be used to cover any exposed edges of metal walls, such as the wall 4, against the edge of which the shoulder 14 is tightly pressed. The same is true of the edge 5 of the front wall 3 against which the facing strip is likewise tightly pressed, as set forth in my aforesaid Patent 1,891,932.

While I have shown the invention as embodied in a specific form, it is to be understood that various changes in details may be made without departing from the scope of the invention, and I therefore do not intend to limit myself except by the appended claims.

I claim:

1. In combination, a frame having an opening closed by a panel, said frame adjacent the edge of the panel comprising two walls, one disposed forwardly and the other rearwardly of the panel and the rear wall overlapping the panel, a backing strip of resilient compressible material dis-

posed between said panel and said rear wall, interlocking elements on said strip and rear wall securing the strip to the wall by the resilience of the material of the strip, a facing strip of resilient compressible material engaging the front face of the panel opposite the backing strip, the means holding said facing strip in place on the frame.

2. In combination, a frame having an opening closed by a panel, said frame adjacent the edge of the panel comprising two walls, one disposed forwardly and the other rearwardly of the panel and the rear wall overlapping the panel, a backing strip of resilient compressible material disposed between said panel and said rear wall, interlocking elements on said strip and rear wall securing the strip to the wall by the resilience of the material of the strip, a facing strip of resilient compressible material engaging the front face of the panel opposite the backing strip, and means holding said facing strip in place on the frame, both of said strips being under substantial compression between the panel and the frame.

3. In combination, a frame having an opening closed by a panel, said frame adjacent the edge of the panel comprising two walls, one disposed forwardly and the other rearwardly of the panel and the rear wall overlapping the panel, a backing strip of resilient compressible material disposed between said panel and said rear wall and under substantial compression therebetween, interlocking elements on said strip and rear wall securing the strip to the wall by the resilience of the material of the strip, a facing strip of resilient compressible material engaging the front face of the panel opposite the backing strip, and means holding said facing strip in place on the frame.

4. In combination, a frame having an opening closed by a panel, said frame adjacent the edge of the panel comprising two walls, one disposed forwardly and the other rearwardly of the panel and the rear wall overlapping the panel, forwardly extending lugs on said rear wall, a backing strip of resilient compressible material having a foot extending beneath said lugs, a facing strip of resilient compressible material engaging the front face of the panel opposite the backing strip, and means holding said facing strip in place on the frame.

5. In combination, a frame having an opening closed by a panel, said frame adjacent the edge of the panel comprising two walls, one disposed forwardly and the other rearwardly of the panel and the rear wall overlapping the panel, forwardly extending lugs on said rear wall, a backing strip of resilient compressible material having a foot extending beneath said lugs, a shoulder on said strip overlying the inner edge of said rear wall, a facing strip of resilient compressible material engaging the front face of the panel opposite the backing strip, and means holding said facing strip in place on the frame.

6. In combination, a frame having an opening closed by a panel, said frame adjacent the edge of the panel comprising two walls, one disposed forwardly and the other rearwardly of the panel and the rear wall overlapping the panel, a shelf extending forwardly from said rear wall and having an intumed flange adjacent the edge of said panel, a backing strip of resilient compressible material having a foot disposed between said rear wall and said flange and thicker than the width of said flange and having a head engaging the rear face of said panel and compressed between said rear face of the panel and said rear wall, a facing strip

of resilient compressible material engaging the front face of the panel opposite the backing strip, and means holding said facing strip in place on the frame.

5 7. In combination, a frame having an opening closed by a panel, said frame adjacent the edge of the panel comprising two walls, one disposed forwardly and the other rearwardly of the panel and the rear wall overlapping the panel, a shelf extending forwardly from said rear wall, a backing strip of resilient compressible material having a foot supported on said shelf and having a head compressed between said rear wall and the rear face of the panel, a relatively narrow neck connecting said head to said foot, a facing strip of resilient compressible material engaging the front face of the panel opposite the backing strip, and means holding said facing strip in place on the frame.

20 8. In combination, a frame having an opening closed by a panel, the frame adjacent the edge of said panel comprising front and rear walls, the rear wall overlapping the panel, a shelf extending forwardly from said rear wall to a point adjacent the edge of said panel, the front edge of said shelf being spaced from said front wall to form a throat therebetween, a resilient facing strip of compressible material extending through said throat and having a foot engaging the outer surface of the shelf, and a resilient backing strip of compressible material disposed between the rear face of the panel and the rear wall and having a toe extending between the edge of the panel and the shelf.

35 9. In combination, a frame having an opening closed by a panel, the frame adjacent the edge of said panel comprising front and rear walls, the rear wall overlapping the panel, a shelf extending forwardly from said rear wall to a point adjacent the edge of said panel, the front edge of said shelf being spaced from said front wall to form a throat therebetween, a resilient facing strip of compressible material extending through said throat and having a foot engaging the outer surface of the shelf, a resilient backing strip of compressible material disposed between the rear

face of the panel and the rear wall and having a toe extending between the edge of the panel and the shelf, and an inwardly extending flange on said shelf between which and the rear wall said foot is compressed, said flange being of less width than the thickness of the foot, whereby the panel will not engage the flange.

10. In combination, a frame having an opening closed by a panel, the frame adjacent the edge of said panel comprising front and rear walls, the rear wall overlapping the panel, a shelf extending forwardly from said rear wall to a point adjacent the edge of said panel, the front edge of said shelf being spaced from said front wall to form a throat therebetween, a resilient facing strip of compressible material extending through said throat and having a foot engaging the outer surface of the shelf, a resilient backing strip of compressible material disposed between the rear face of the panel and the rear wall and having a toe extending between the edge of the panel and the shelf, forwardly extending lugs on said rear wall disposed inwardly of said shelf, said foot being received beneath said lugs, and a shoulder on said strip engaging the edge of said rear wall, the distance between said foot and said shoulder being less than the distance between the edge of the lug and the edge of the wall to cause the strip to bind against said edges when in place.

30 11. A backing strip for a panel, said strip being formed of resilient compressible material and comprising a foot having a toe and a heel, a neck narrower than said foot and extending upwardly from said foot and spaced from said toe, and a head on said neck and substantially as thick as the foot and extending forwardly over said toe.

35 12. A backing strip for a panel, said strip being formed of resilient compressible material and comprising a foot having a toe and a heel, a neck narrower than said foot and extending upwardly from said foot and spaced from said toe, and a head on said neck substantially as thick as the foot and extending forwardly over said toe and also extending rearwardly over said heel.

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