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A. E. DUTFIELD

2,815,105

PANEL EDGE MOUNTING MEANS

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FIG. 1.

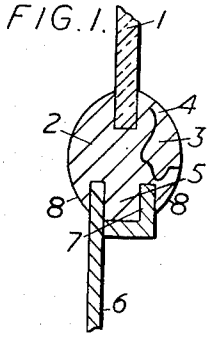


FIG. 2.

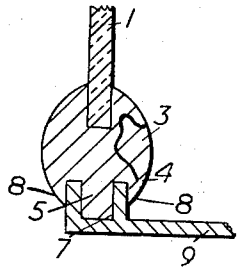


FIG. 3.

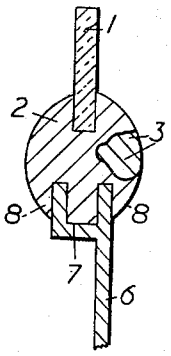


FIG. 4.

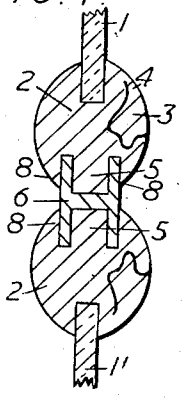
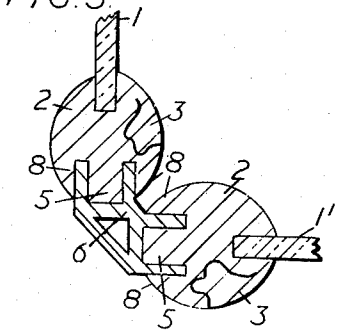


FIG. 5.



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PANEL EDGE MOUNTING MEANS

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1 Claim. (Cl. 189—78)

This invention relates to panel edge mounting means and has particular but not exclusive reference to the use of strips of resiliently flexible material for seating and sealing the edges of the panes of windows, especially windows subject to considerable vibration such as occurs in motor cars and buses. It will however be understood that the said mounting means may be applied to panels in general whether of glass or other sheet material.

For some considerable time past the use of putty or wood fillets to fix window panes has been superceded by the use of strips of resiliently flexible material such as rubber, which strips are very convenient to handle and serve not only to absorb vibration but also to act as a seal against infiltration of rain or moisture.

It has been common practice for some years to line the window space or opening in a windowed structure with a metal liner or so-called pan, and various cross-sectional shapes for such pans have been proposed to assist and improve the assembly of the window pane edge and its resilient strip-like seating member and to ensure a secure anchoring of the seating member in the pan.

It has also been proposed to dispense with the metal liner or pan above-mentioned and to support the glass pane on a plain rigid plate of metal disposed edge-on with respect to the window space and projecting peripherally into said space, and to employ a pane-mounting or glazing strip of flexible material such as rubber as an intermediary between the edge of the rigid metal plate and the edge of the glass pane. The flexible glazing strip referred to is so shaped that on the underpart thereof an inverted channel formation envelops and rides jockey-wise upon the edge of the said rigid metal plate and on the upper part an upright channel formation envelops the bottom edge of the glass pane. In the case of a vehicle the said metal plate is commonly termed the body panel. In order to tighten the grip or pressure of the said riding strip against the outer face of the pane, and thereby ensure an effective seal against infiltration of water and suppress any tendency of the outer wall portion of the edge-engaging portion of the strip to flex outwardly away from the pane surface, it has been proposed to provide a groove or pocket extending longitudinally along the outer side or flank of the riding strip and to force a strip member of suitable material into the said groove, to serve as a buttressing strip, the receiving groove or pocket being so shaped as to serve as a pocket to embrace and retain the buttressing strip when forced into position.

It has been found in practice that where the jockey-riding type of glazing strip is used in vehicles undergoing severe vibration, the jockey-riding qualities of the glazing strip are liable to be severely deteriorated by wear due to vibrating contact with the edge of the metal body panel and the chief object of the present invention is therefore to improve panel edge mounting means in this respect.

According to the present invention panel edge mounting means are provided comprising a rigid strip-like member presenting a longitudinal channel in combination with a strip of resiliently flexible material such as rubber serving as an intermediary between the said panel edge and the said rigid strip-like member, the said resiliently flexible strip being formed with a longitudinal groove to house the said panel edge, also with a longitudinal rib disposed oppositely with respect to the said groove for fitting into the said longitudinal channel of the rigid strip-like member, also with a lip extending from each of its flanks into embracing relation with respect to the outer surface of each side wall of the aforesaid channel, also with a longitudinal pocket-like recess along at least one of its flanks, the said means including also a strip-like element of resiliently flexible material fitting into and occupying the said pocket-like recess.

The rigid strip-like member presenting the said longitudinal channel may be a structural member such as a pillar or it may be part of a so-called metal pan lining a window space or it may be part of a so-called body panel framing a window space. The said rigid member may if desired be formed with two longitudinal channels facing in different directions for receiving the respective longitudinal rib portions of two resiliently flexible strips, each housing in its longitudinal groove the edge of a pane or panel.

The invention will now be described more fully with reference to the accompanying drawings in which:

Figure 1 is a cross-sectional view of part of a glass window pane or panel and edge mounting means according to the present invention in one of its embodiments.

Figures 2 and 3 are views similar in general respects to Figure 1 but showing two modifications thereof.

Figure 4 is a cross-sectional view of a duplicated form of panel edge mounting means according to the present invention showing its application to the mounting of the adjacent edges of two co-planar panels.

Figure 5 is a cross-sectional view similar in general respects to Figure 4 but showing the mounting of the adjacent edges of two panels disposed in planes at right angles to one another.

In Figures 1, 2 and 3 the mounting of the bottom edge only of a window pane is shown although obviously the mounting will normally extend around the other edges of the pane.

Referring first to Figure 1, the reference numeral **1** indicates a portion of a vertical glass window pane, and **2** is the body portion of a glazing strip of rubber or similar resilient material having an upwardly-directed channel extending along its upper part to receive and embrace the lower edge of the glass pane **1**. **3** is a longitudinally extending buttressing strip substantially filling a corresponding recess or pocket on the right flank of the glazing strip, this buttressing strip being shown as longitudinally united to the body portion **2** by a neck piece **4** at the upper edge of the said recess or pocket, i. e. near the glass receiving channels.

According to the present invention the glazing strip **2** is formed on its under part with a longitudinal downwardly directed rib **5**, and the vertical metal plate or body panel **6** for supporting the glazing strip is formed with a corresponding rib-receiving longitudinal channel **7**, and the glazing strip is formed on each of its flanks with a downwardly extending lip portion **11** embracing the corresponding wall of the said metal channel.

Figure 2 differs from Figure 1 in that the buttressing strip is united by the neck piece **4** to the body portion of the glazing strip along the lower edge of the recess or pocket, i. e. near the base of the rib **5**, and in that the rib-receiving metal channel **7** is formed at one edge

of a horizontal metal plate or pan **8** instead of at the upper edge of a vertical metal plate or body panel.

Figure 3 differs from Figure 1 in that the buttressing strip instead of being united to the body of the glazing strip is separable therefrom, and in that the metal channel is to the left instead of to the right of the vertical metal plate or panel **6**.

In the modification illustrated in Figure 4, the metal plate **6** is of H-section so as to present duplicated channels back to back to accommodate the ribs of two resiliently flexible strips for mounting and uniting the adjacent edges of two co-planar panels **1** and **1¹**.

The panel edge mounting means of Figure 5 are generally similar to those shown in Figure 4 but the channels are disposed in planes at right angles to suit the mounting of panels also disposed at right angles.

In all constructions the longitudinal pocket along one flank of the resiliently flexible strip **2** serves the known purpose of enabling the corresponding wall of the panel edge receiving channel to be deflected easily to facilitate the placing of the panel in position, and the subsequent placing of the buttressing strip **3** in position in the pocket keeps the said wall pressed firmly against the contacting surface of the panel edge.

What I claim is:

Panel edge mounting means comprising a rigid strip-like member having side walls thereon defining a longitudinal channel therein, and a resiliently flexible strip having a longitudinal rib thereon fitting into said longitudinal channel and having lips thereon spaced from each side of said longitudinal rib embracing the outer surface of each of said side walls, said strip further having a longitudinal groove on the side thereof opposite said rib for receiving the edge of the panel to be mounted, and said strip further having a longitudinal pocket-like recess along one side thereof and a strip-like element of resiliently flexible material fitted into said pocket-like recess and each of the side walls of the said rigid strip-like member being equal in height to the height of each of the sides of the said longitudinal rib of the said flexible strip whereby the base of the said rib is supported on the bottom of the longitudinal channel of said rigid strip-like member.

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