Feb. 11, 1941. D. C. BAILEY 2,231,316

PANEL TRIM AND WINDLACE RETAINER

Filed Nov. 9, 1939

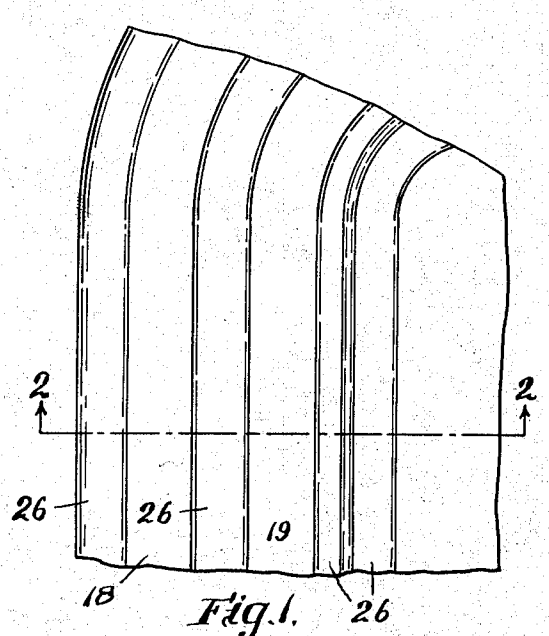


Fig. 1.

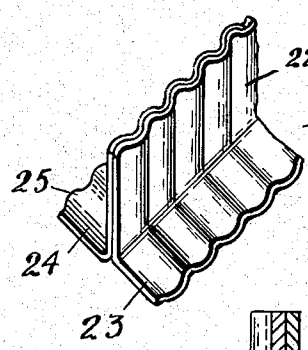


Fig. 3.

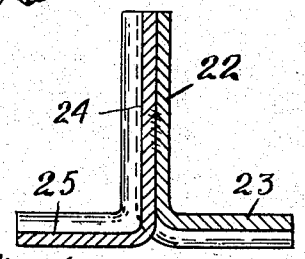


Fig. 4.

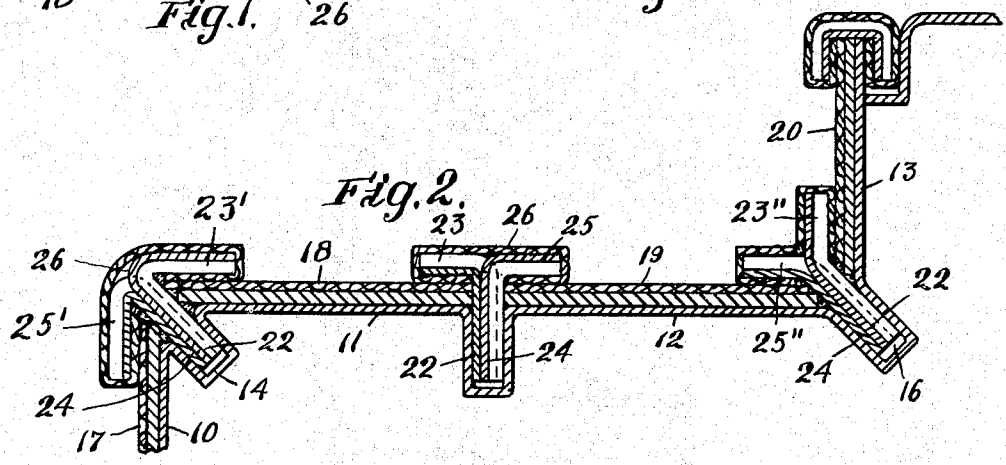


Fig. 2.

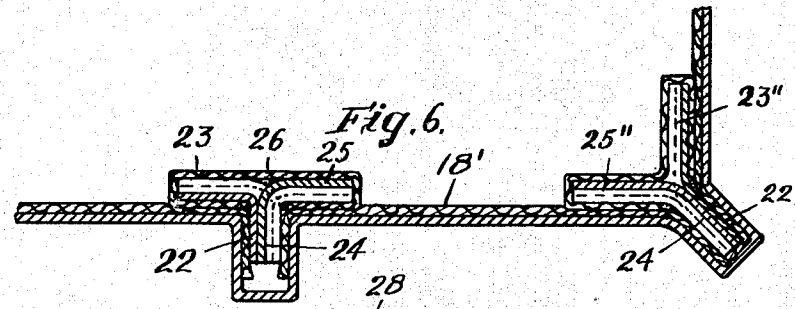


Fig. 6.

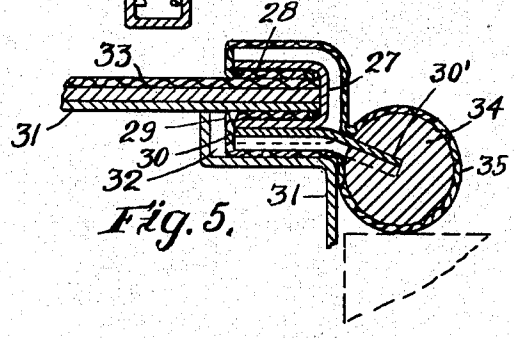


Fig. 5.

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PANEL TRIM AND WINDLACE RETAINER

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Application November 9, 1939, Serial No. 303,651

6 Claims. (Cl. 45—138)

This invention relates to an improved means for securing panel trims in position on the panels of automobile bodies and more particularly where two panels are adjacently disposed either in different planes, or in the same plane.

Prior to my invention, various means, such as metallic fasteners and adhesives have been employed for this purpose, but such means have not been found satisfactory for various reasons, such as unsatisfactory appearance, durability and labor cost.

The objects of my invention are to provide an improved means for attaching panel trims to adjacent panels which may be disposed either at an angle to each other or in the same plane, so that metallic fasteners or adhesives will not be required, and, at the same time, the appearance of the finished work will be improved, the labor cost will be reduced and construction work will be facilitated.

I accomplish these objects by providing the body member with an inwardly extending groove between the edges of adjacent panels and by providing a securing strip having a core which consists of two transversely corrugated strips of sheet metal, each of which is bent transversely to provide two longitudinal portions, and by securing said strips together by placing a longitudinal portion of one strip on a corresponding portion of the other strip so that the corrugations register and securing them together by a spot-welding operation, then covering the core thus formed with a suitable fabric which corresponds to the covering of the panel trim and then forcing the doubled portion of the core into the body slot which has been provided therefor so that the oppositely disposed portions of the core will be clamped against the adjacent edge portions of the panel trims.

For a more complete disclosure of my invention, reference is now made to the following specification in connection with the accompanying drawing, in which:

Fig. 1 is a plan view of a plurality of adjacent panels, secured in position by an embodiment of my invention.

Fig. 2 is a sectional view at line 2—2 of Fig. 1.

Fig. 3 is a detail perspective view of a portion of the core.

Fig. 4 is a detail sectional view on an enlarged scale, illustrating a method of connecting the core sections.

Fig. 5 is a sectional view illustrating the application of the core to a windlace.

Fig. 6 is a sectional view of a slight modification.

In the drawing I have illustrated a plurality of adjacently disposed panels 10, 11, 12, and 13, the panels 10 and 11 being disposed at right angles to each other and having a slot or groove 14 bisecting the angle therebetween, the panels 11 and 12 being disposed in the same plane and having a slot or groove 15 therebetween, and the panels 12 and 13 also being disposed at right angles and having a slot or groove 16 therebetween. The panels 10, 11, 12 and 13 are respectively provided with panel trims 17, 18, 19 and 20, each of which consist of a sheet of card board covered with cloth which is adhesively secured thereto, the covered surface between the panels 10 and 11 including an angle of 270° and that between the panels 12 and 13 including an angle of 90°.

It will be understood that the arrangement shown is merely illustrative of different conditions which may be encountered.

According to my invention I provide a panel trim retaining strip having a core which consists of two strips of thin, transversely corrugated sheet metal, each of which is bent along a longitudinal middle line to provide one strip with longitudinal portions 22, 23 and the other strip with longitudinal portions 24 and 25. The corrugations are closely arranged together and extend from edge to edge of the strip and are identical in formation in each strip. Two of the longitudinal portions 22 and 24 are placed together in register, or in coincidence, so that the convex portions of the corrugations of one strip are located in the concave portions of the corrugations in the other strip, as shown in Fig. 3, and the two strip portions, as thus arranged are secured together by any suitable means, but preferably by a spot welding operation as indicated in Fig. 4. The core thus formed is covered with a fabric 26, which is adhesively secured thereto. This fabric may be the same as the fabric on the panel trim or a different fabric to give an ornamental appearance.

In providing a retaining strip to retain two panels on panels which are disposed in the same plane, as are panels 11 and 12, the core sections 23, 25 will be bent at right angles to the sections 22, 24 and in securing the panel trims 18, 19 thereon the connected core portions 22, 24 will be forced into the groove 15, the width of which will be made to correspond to the thickness of the connected portions 22, 24, so that considerable force will be required to press the strip into the

position of Fig. 2. As a result the edge portions of the panel trim will be firmly clamped against the panels on which they are located.

In providing a strip to clamp the edge portions of panel trims 17, 18 the side portions 23', 24' of the core will be bent to an angle of 45° to the middle portion 22, 24, so that when the middle portion is forced into groove 14 the adjacent edge portions of the panel trims 17, 18 will be clamped against the panels on which they are located.

In like manner when the panel trims 19, 20 are to be secured the core sections 23'', 25'' will be bent at an angle of 120° to the section 22, 24, so that they will be clamped against the panels 12 and 13, as shown in Fig. 2.

It will be apparent that my invention is not limited to the formation of any particular angle between the side portions and middle portions of the core and that they may be the same or different from each other according to requirements.

It will also be apparent that the construction permits the strip to be bent in any direction so that two adjacent panels may be secured by the strip under almost any condition which is likely to be encountered in the construction of an automobile body.

A similar type of retaining strip may be employed in connection with a windlace and panel trim of a door pillar, as shown in Fig. 5.

In this instance one section of the core is bent longitudinally in U-form, providing a middle portion 27 and two side portions 28 and 29 and a core section 30 is attached to one side portion 29 of the U-form section in the same manner as previously described with reference to the connection of core sections 22, 24, both core sections 27 and 30 being of transversely corrugated sheet metal. The panel 31 of the door pillar has a slot or recess 32 extending beneath it from its edge and a panel trim 33 is placed thereon, and clamped thereto by the side portion 28 of the U-form section, the other side portion 29 to which the section 30 is attached being forced into the slot 32. The core section 30 is bent at an oblique angle along a longitudinal line adjacent the middle thereof and the portion 30' of said section which extends beyond the middle portion 27 of the other core section is extended into a cylindrical strip of rubber 34 which is located in position to act as a windlace. The entire core and rubber strip is enclosed by a fabric covering 35 which is adhesively secured thereto, said covering extending onto the inner sides of the side portions 28 and 29, so that when the strip is in position in the slot 31, the edge portions of the fabric will be securely clamped against the side of the slot and the surface of the panel.

As thus arranged, the panel trim 33 will be clamped against the panel 31 and the rubber strip 34 will be held in such a position that when the door is closed, (as indicated by dotted lines in Fig. 5) it will be held firmly against the windlace, which will be supported by the core portion 30', so that a tight joint will be provided between the door and door pillar, and the panel trim will, at the same time, be firmly secured to the panel.

While the common practice has been to mount the panel trim on card board pieces which are fitted to the panel, the use of card board may be obviated in the manner disclosed in Fig. 6 by inserting the fabric 18' into the trim retainer slots and then driving the retainer into the slot, so that the fabric is not only clamped by the projecting portion of the strip, but is also clamped between the side of the slot and the strip portion which is inserted therein.

From the foregoing description, it will be apparent that various conditions which are encountered in finishing the interior of an automobile body may be provided for by making slight variations in the form of the retaining strip and that a finished appearance will be secured and construction work facilitated.

I claim:

1. A panel trim retainer comprising a core consisting of a strip of transversely corrugated sheet metal bent along a longitudinal line to provide two longitudinal side portions, and a second core strip of transversely corrugated sheet metal having a longitudinal portion thereof coincidently engaged with and connected to one of the side portions of the first named strip and having another longitudinal portion extending beyond said first named strip and a covering on said core.

2. A panel trim retainer comprising a core consisting of two strips of transversely corrugated sheet metal bent along longitudinal lines to provide each strip with two longitudinal side portions, one of the side portions of one strip being coincidently engaged with and connected to a side portion of the other strip, and the other side portions of the strips extending in different planes to provide independent retaining means and a covering on said core.

3. In combination with a body member having two adjacently disposed panels and having a slot interposed between adjacent edges of said panels, a panel trim on each panel, a panel trim retaining strip comprising a core consisting of two strips of transversely corrugated sheet metal each bent along a longitudinal line to provide two longitudinal side portions, one of the side portions of one strip being coincidently engaged with one of the side portions of the other strip, and together tightly fitted into said slot and the other side portions of said strips extending oppositely, respectively to clamp the adjacent portions of the panel trims to the panels on which they are mounted and a covering on said core.

4. In combination with a body member having two adjacently disposed panels and having a slot interposed between adjacent edges of said panels, a panel trim on each panel, a panel trim retaining strip comprising a core consisting of two strips of transversely corrugated sheet metal each bent along a longitudinal line to provide two longitudinal side portions, one of the side portions of one strip being coincidently engaged with and connected to one of the side portions of the other strip, said connected portions being tightly fitted into said slot, and the other side portions of said strips extending oppositely respectively to clamp the adjacent portions of the panel trims to the panels on which they are mounted and a covering on said core.

5. A panel trim retainer comprising a core consisting of two strips of sheet metal having closely spaced regularly arranged corrugations extending transversely thereof, each strip having a longitudinal portion coincidently arranged with relation to a longitudinal portion of the other strip so that the convex surfaces of one strip engage the concave surfaces of the other strip and means for connecting said coincidently arranged portions, the other portions of said core strips extending from said connected portions at an angle to each other and a covering for said core.

6. In combination with a body member having

two adjacently disposed panels and having a slot interposed between said panels, a panel trim on the surface of each panel, a retaining strip comprising a core having a covering thereon, said core consisting of two transversely corrugated sheet metal strips each bent along a longitudinal line to provide two longitudinal side portions, one side portion of one strip being attached to one side portion of the other strip in coincident relation, so that the projecting portions of the corrugations on one strip are disposed in the recesses of the corrugations on the other strip and the other side portions of the strips project in opposite relation, the directly attached side portions of said strips being tightly fitted into said slot and the oppositely projecting portions thereof being clamped against the adjacent portions of the panel trims.

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