May 9, 1944. D. C. BAILEY 2,348,319

COMBINED WINDLACE AND PANEL TRIM RETAINER

Original Filed Nov. 9, 1939

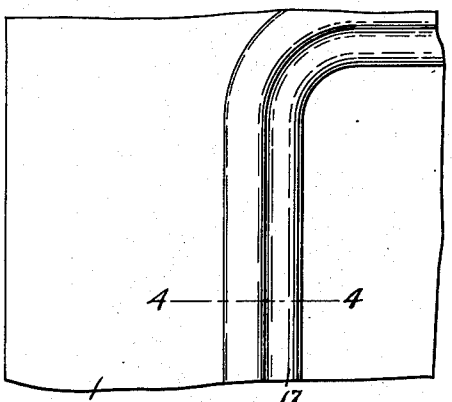


Fig. 1.

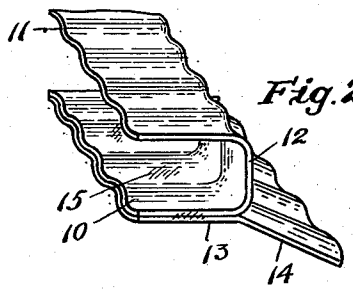


Fig. 2.

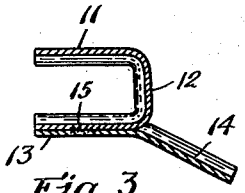


Fig. 3.

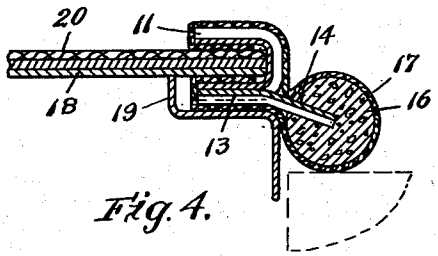


Fig. 4.

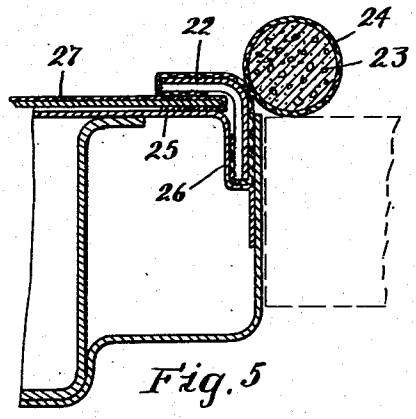


Fig. 5

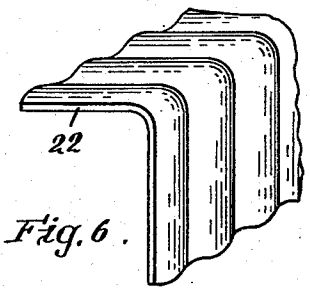


Fig. 6.

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COMBINED WINDLACE AND PANEL TRIM RETAINER

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Original applications November 9, 1939, Serial No. 303,650, and November 9, 1939, Serial No. 303,651. Divided and this application September 30, 1940, Serial No. 359,029

5 Claims. (Cl. 296—44)

This invention relates to windlace retainers which are generally employed in automobile bodies to insure a tight closure, usually between a door and its casing, and is a division of my applications filed November 9, 1939, Serial Nos. 303,650, now Patent No. 2,243,743, granted May 27, 1941, and 303,651, now Patent No. 2,231,316, granted February 11, 1941, in which the constructions which constitute the subject matter of this application are disclosed.

The objects of my invention are to provide an improved means for supporting a windlace in connection with a door jamb of an automobile body or casing about an opening where air is likely to enter a compartment, and it is desired to exclude it, and to provide, in connection with said supporting means, means for securing a panel trim to the interior of the structure, so that the windlace may be installed conveniently in connection with the work of installing the interior finish.

I accomplish these objects by providing an improved form of panel trim retainer which is adapted to be forced into a groove in the structure and to clamp against an adjacent surface, and, at the same time, will support a windlace in position to be effective in sealing the opening.

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

Fig. 1 is an elevation of a section of windlace and panel retainer embodying my invention.

Fig. 2 is a detail perspective view of a section of the core of a panel retainer which I employ.

Fig. 3 is a cross sectional view thereof.

Fig. 4 is a sectional view at line 4—4 of Fig. 1.

Fig. 5 is a similar sectional view of a modification.

Fig. 6 is a perspective view of a core section of the form shown in Fig. 5.

As disclosed in said prior applications the constructions therein shown are primarily designed for use as panel trim retainers, the construction shown in Figs. 1 to 4 having a core which consists of two strips of thin transversely corrugated sheet metal, one of the strips being bent in U-form providing two side sections 10 and 11 and a middle section 12, and the other strip being bent along an intermediate longitudinal line, providing two sections 13 and 14. The section 13 is placed on the outer side of section 10, with their corrugations in coincidence and the vertex of the angle between the sections 13, 14 in approximate coincidence with the vertex of the angle between the sections 10 and 12. The sections as thus assembled are spot welded together as indicated at 15.

In the present instance the section 14 is shown in a slightly oblique position with relation to section 13, but this may be varied in either direction according to conditions.

A solid round strip 16 of soft rubber is split longitudinally to approximately its center and the core section 14 is inserted therein as shown in Fig. 4. The entire core strip is then enclosed in a suitable fabric 17.

The casing 18 is provided with a groove or slot 19 at the edge of one of its panels and a panel trim 20 is clamped thereto by inserting the core portion 10, 13 in the slot, so that the portion 11 extends onto the edge portion of the panel, thus securing it in position, as shown in Fig. 4. In this position the windlace 16 will be held in position for engagement by a door, or other closure, as indicated in dotted outline in Fig. 4. As thus arranged, an effective support is provided for the windlace by the core portion 14 which is somewhat yieldably supported, providing an effective cushion for the door, as both the core portion and the strip 16 are slightly yieldable.

In Figs. 5 and 6 a somewhat modified form of panel trim retainer is shown, in which the core consists of a single strip of thin transversely corrugated sheet metal 22, which is bent longitudinally at right angles and a round strip 23 of soft rubber is mounted on the vertex of the core and held in this position by a fabric covering 24, which completely encloses the core and rubber strip, and holds the latter in position on the core.

The manner in which the retainer is used is similar to that already disclosed. The casing 25 has a groove 26, which in this instance is perpendicular to the edge of the panel and in clamping the panel trim 27 to the panel, one side section of the retainer is forced into groove 26, so that the other side section is clamped against the panel. In this position the windlace is held in position for yielding engagement with a door, as indicated in dotted outline in Fig. 5.

While this form of my invention may not be as durable or as efficient as the form first described, it nevertheless is effective and provides a convenient means for applying a windlace to a casing.

Either form above described may be readily bent to conform to any curvature of the casing and by forming the corrugations slightly deeper than the width of the slot, a very strong frictional engagement will be secured between the part of

the retainer which is driven into the slot and the casing.

I claim:

1. A windlace for a vehicle opening comprising a resilient soft solid-rubber strip having a longitudinal slit extended inwardly from its surface, a retainer therefor comprising two strips of thin corrugated sheet metal, one of said metal strips being bent transversely of its corrugations to provide a plurality of longitudinal sections having transverse corrugations adapted to grip a vehicle part and retain the windlace in position, said other metal strip having a longitudinal section arranged in coincidence with one of the sections of the first named metal strip and secured thereto by spot welding and having a longitudinal portion extended into the slit of said rubber strip, and a fabric covering enclosing and connecting said metal and rubber strips.

2. A windlace comprising a soft solid-rubber strip having a longitudinal slit extended inward from its surface, a retainer therefor consisting of a strip of transversely corrugated sheet metal bent along a longitudinal line providing two longitudinal side portions, a second transversely corrugated sheet metal strip having a longitudinal portion coincidentally engaged and connected to one of the side portions of the first named metal strip and having another longitudinal portion projecting beyond said first corrugated metal strip at an angle between two of its side portions and extended into the slit of said soft rubber strip, and a covering enclosing said soft rubber strip and said metal strips and securing said rubber strip in position on said second corrugated strip.

3. A windlace for a structural opening, comprising a strip of resiliently compressible material, a retainer therefor comprising a sheet metal strip having corrugations extending transversely of the longitudinal extent of said metal strip and bent on a line extending longitudinally of the metal strip to provide two angularly related longitudinally extending corrugated metal strip portions, and means securing said compressible strip to the metal strip along said longitudinal line of bending thereof and at the vertex of the angle formed by said angularly related metal strip portions, said means including an envelope of flexible sheet material secured to said metal strip, completely enclosing said compressible strip, and extending in covering relation to the full area of at least one of said angularly related longitudinally extending corrugated metal strip portions.

4. A windlace for a structural opening, comprising a strip of resiliently compressible material, a retainer therefor comprising a sheet metal strip having corrugations extending transversely of the longitudinal extent of said metal strip and bent on a line extending longitudinally of the metal strip to provide two angularly related longitudinally extending corrugated metal strip portions, and an envelop of flexible sheet material wrapped around said compressible strip and completely enclosing said strip and also secured to, extending over and completely covering the outer faces of said angularly related metal strip portions, said wrapped compressible strip extending along said longitudinal line of bend of the metal strip at the vertex of the angle formed by said angularly related metal strip portions, and said flexible sheet material providing a hinge between the compressible strip and the metal strip at and along the said vertex.

5. A windlace for a structural opening, comprising a sheet metal strip having a longitudinally extending portion which is corrugated transversely of its longitudinal extent for resiliently engaging between the opposite walls of a retaining channel, said strip having another longitudinally extending portion including a part for engaging over the margin of a panel, said two portions of the sheet metal strip providing at their juncture a vertex extending longitudinally of the strip, a strip of resiliently compressible material extending along said vertex of the sheet metal strip, and means securing the compressible strip to the metal strip including a sheet of flexible material enclosing the compressible strip and extending in covering relation to the full area of at least one of the said longitudinally extending portions of the sheet metal strip.

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