March 28, 1967 E. WEIMAR 3,310,928

TRIMMING MEMBER

Filed Dec. 1, 1964 2 Sheets-Sheet 1

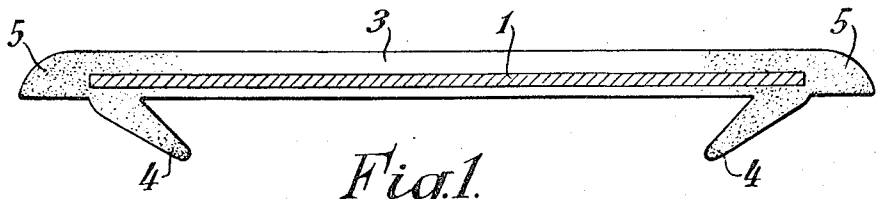


Fig. 1.

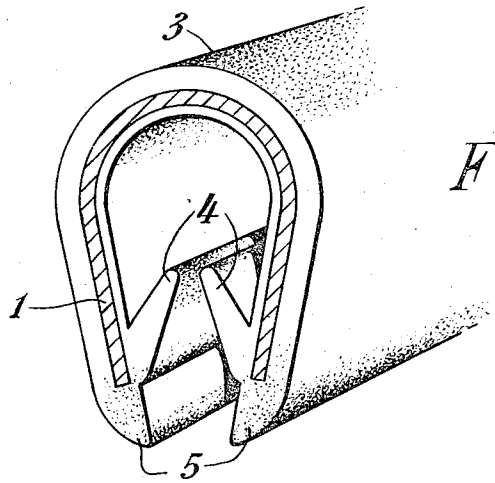


Fig. 2.

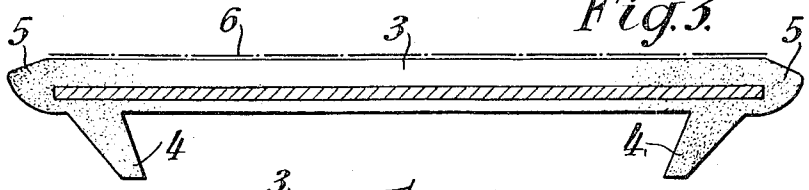


Fig. 3.

Fig. 4.

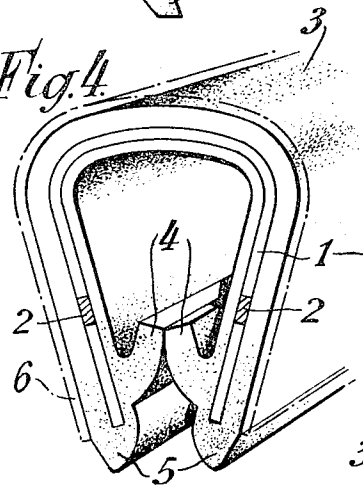
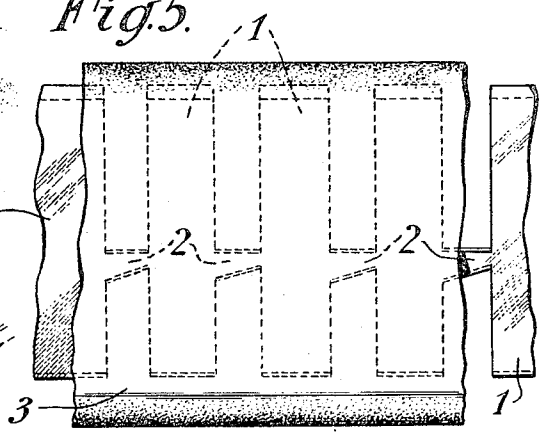


Fig. 5.



INVENTOR
ERICH WEIMAR
BY Dean, Fairbanks & Hirsch
ATTORNEYS

March 28, 1967 E. WEIMAR 3,310,928

TRIMMING MEMBER

Filed Dec. 1, 1964 2 Sheets-Sheet 2

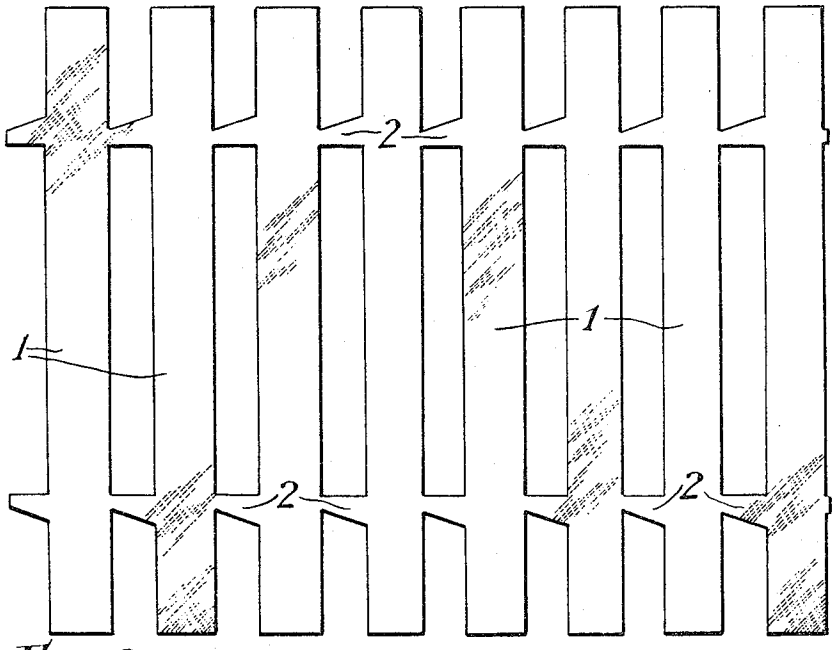


Fig. 6.

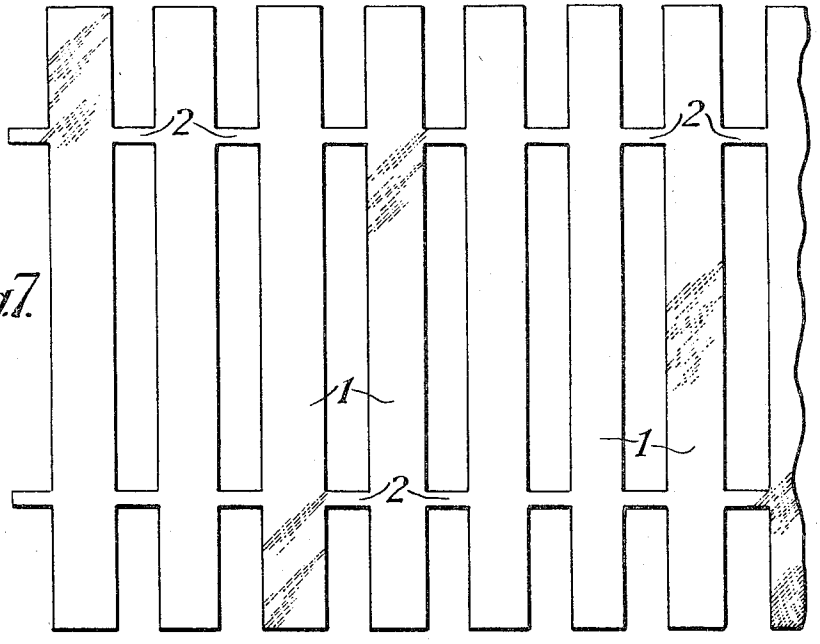


Fig. 7.

INVENTOR
ERICH WEIMAR
BY Dean, Fairbank & Hirsch
ATTORNEYS

United States Patent Office 3,310,928
Patented Mar. 28, 1967

3,310,928

TRIMMING MEMBER

Erich Weimar, Viersen, Rhineland, Germany, assignor to Bright Manufacturing Company Limited, Warwickshire, England, a British company

Filed Dec. 1, 1964, Ser. No. 415,008
3 Claims. (Cl. 52—716)

This invention relates to trimming or sealing strips for use on motor vehicles and which are intended to straddle and cover up the otherwise unsightly flange surrounding each door opening or luggage compartment or boot and in some cases also constitute a draught or moisture excluding seal.

Thermo-plastic synthetic resin materials are now being used to a greater extent in the manufacture of such strips and although the strip in accordance with the present invention preferably makes use of one or other of such materials it is within the scope of the invention to use natural or synthetic rubber, in fact any suitable mouldable material.

A strip in accordance with the present invention is moulded or extruded onto an internally positioned clip including a plurality of longitudinally spaced ribs connected together in spaced relationship by integral connecting portions which by bending will permit of relative movement of the ribs to allow the strip to be bent around small radius curves, the interior of the strip being formed with inwardly directed projections for frictionally engaging a supporting flange on which the strip is to be mounted, the strip being initially or finally of substantially inverted U shape in cross-section.

Preferably the strip is moulded or extruded in a flat condition and finally bent into its substantially inverted U shape. Consequently the clip can be blanked out from strip metal, introduced into the mould or extruder in its flat form, the plastic or other mouldable material enclosing the clip so that the latter is completely sealed against moisture, the strip including the moulded-in clip being finally bent to the required cross-section.

Referring to the accompanying drawings:

FIGURE 1 is an end view of a trimming strip in accordance with the invention prior to being bent into substantially inverted U shape;

FIGURE 2 is a perspective view of the trimming strip after it has been bent to substantially inverted U shape;

FIGURE 3 is an end view of an alternative form of trimming strip;

FIGURE 4 is a perspective view;

FIGURE 5 is a plan view of either strip shown in FIGURES 1 and 2 or 3 and 4, the covering being broken away to show the positioning of the clip;

FIGURES 6 and 7 are plan views of two alternative clip blanks.

The clip is preferably constructed from strip or sheet metal, two alternative forms of the blank being shown in FIGURES 6 and 7. The blank includes a number of spaced ribs **1** connected together at laterally spaced points by connecting portions **2**.

The connecting portions **2** are spaced from the extremities of the ribs and when the blank has been bent along its longitudinal axis into substantially inverted U shape to define opposed legs, the connecting portions preferably lie substantially midway of the length of each leg.

It is often necessary to bend trimming and sealing strips to a small radius of curvature and as such bending will take place along the longitudinal axis of the clip, this will result in slight bending of the connecting portions relatively to the ribs.

The connecting portions therefore are comparatively narrow in relation to the width of the ribs and consequently will bend easily and without resulting in any

abnormal closing or opening movement of the ribs at the upper and lower edges of the clip.

The connecting portions **2** may be of the comparatively narrow parallel-sided form shown in FIGURE 7 or of the tapering form shown in FIGURE 6. In the latter case the connecting portions will naturally tend to bend at their narrowest ends, i.e., adjacent the same respective side of each successive rib.

Referring now to FIGURES 1 to 5, which illustrate a trimming strip incorporating a clip blank as shown in FIGURES 6 or 7, or in the case of FIGURE 5 a clip blank of the specific form shown in FIGURE 6, the clip blank is introduced into the extruder in flat form, the plastic or other mouldable material enclosing the blank so that the latter is completely sealed, the plastic or like covering being indicated by reference numeral **3**. In this way the clip will be completely sealed against ingress of moisture.

The mould or extruding die is so shaped as to form a pair of integral flange gripping portions **4**, two alternative shapes of which are shown in FIGURES 1 and 3.

The covered blank as shown in FIGURE 1 or 3 is, after the extruding or moulding operation bent into the substantially inverted U shape depicted in FIGURES 2 and 4. In FIGURE 2 the upper surface of the trimming strip is substantially curved whilst in the case of FIGURE 4 the upper surface is substantially flattened. In both cases the limbs of the trimming strip converge downwardly but it will be appreciated that when the trimming strip is in position upon a supporting flange, the limbs will be opened out so that they occupy a more or less parallel position, the natural inherent resilience of the clip causing the limbs to grip the supporting flange through the medium of the parts **4**.

As is shown clearly in FIGURES 2 and 4, the parts **4** are inclined inwardly and upwardly to provide a lead to enable the strip to be easily pressed into position upon the supporting flange but to effectively resist its accidental displacement.

The moulded or extruded material extends beyond the extremities of the ribs to form beads **5** which are intended to engage parts adjacent the flange to make good sealing engagement therewith to prevent moisture finding its way into the interior of the strip and onto the flange and causing corrosion.

The plastic or other mouldable material may be ornamented by a suitable pattern on its outer surface, may have an ornamental flock coating or may carry a fabric or other suitable ornamental covering, the covering being indicated in FIGURES 3 and 4 by the chain dotted line **6**.

When intended for draught excluding or weather excluding purposes, the strip may carry or incorporate a soft but resilient sealing portion which can be compressed under the closing action of a door or other closure member to provide a good seal.

By avoiding the use of sharp metal tangs for frictionally engaging the supporting flange, the paint or other protective coating on the flange will not be liable to be damaged and render the flange liable to corrosion.

I claim:

1. A trimming member for frictionally engaging a supporting flange, comprising an elongated strip of thermoplastic material, an elongated resilient clip strip bonded in said first strip and encompassed thereby, said clip strip comprising a plurality of longitudinally spaced parallel ribs, a pair of spaced parallel connector ribs extending between adjacent pairs of parallel clip ribs, said thermoplastic strip and clip strip being bent along a line extending longitudinally thereof midway between said connector ribs so that the clip strip is substantially U-shaped in cross section, defining a plurality of pairs of opposed legs, said connector ribs being positioned substantially midway of

the length of said legs, the portion of said thermoplastic strip on the interior of each of said legs having an inwardly and upwardly directed projection adjacent the free end of each leg.

2. A trimming member as claimed in claim 1, wherein the thermoplastic material is extended beyond the free end of each of the legs of the clip strip to form a pair of continuous longitudinally arranged beads.

3. A strip as claimed in claim 1, wherein the connecting portions are of tapering formation the narrower ends being of comparatively narrow width so that bending movement will be confined to the comparatively narrow ends.

References Cited by the Examiner

UNITED STATES PATENTS

Re. 16,178	9/1925	Randall.	
2,954,310	9/1960	Truesdell et al.	20—69 X
3,165,793	1/1965	Lynch	20—69
3,167,825	2/1965	Zoller	20—69

FOREIGN PATENTS

958,285	5/1964	Great Britain.

HARRISON R. MOSELEY, *Primary Examiner.*

W. E. HEATON, P. C. KANNAN, *Assistant Examiners.*