

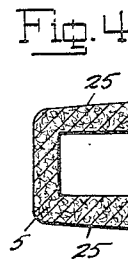
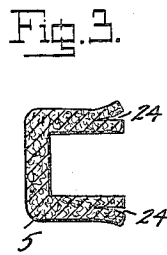
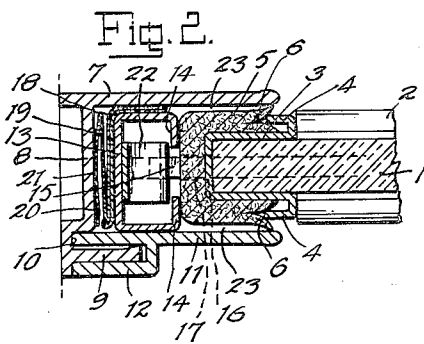
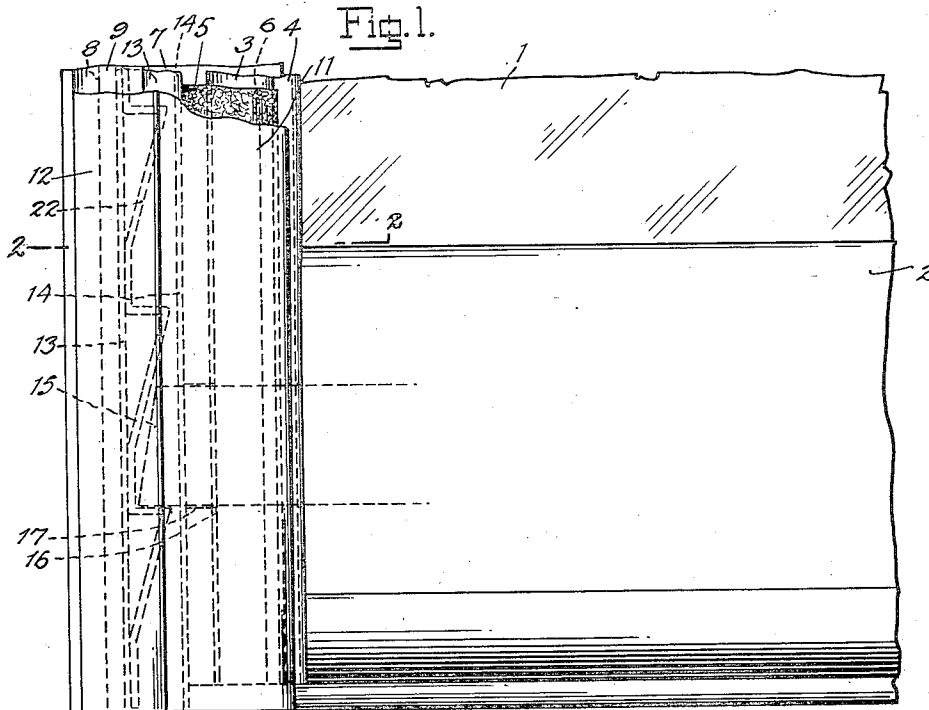
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BUS OR CAR WINDOW CONSTRUCTION

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BUS OR CAR WINDOW CONSTRUCTION

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5 Claims. (Cl. 296—44.5)

The present invention relates to improvements in bus or car window construction, and particularly in the side strap for the window sash, an object being to provide a side strap having a felt or similar covering which will have very easy sliding movement within the side channel of the window construction and at the same time will provide an effective weather seal and support against looseness and rattling. It is particularly proposed to provide a covering material for the side strap having a cross-sectional shape adapted to provide relatively wide clearances at each side, and which has outwardly disposed side channel engaging portions providing an effective weather seal and resilient support for the window sash, the contact of these outwardly disposed portions with the side channel approximating line contact engagement, so that they offer minimum frictional resistance to the sliding movement of the window as it is raised and lowered.

With the above and other objects in view embodiments of the invention are shown in the accompanying drawing, and these embodiments will be hereinafter more fully described with reference thereto, and the invention will be finally pointed out in the claims.

In the drawing:

Fig. 1 is a fragmentary front elevation showing the lower corner of a window construction having a side strap provided with covering material according to one illustrated exemplary embodiment of my invention.

Fig. 2 is a sectional view, taken along the line 2—2 of Fig. 1.

Fig. 3 is a horizontal sectional view of a modified form of covering material, according to my invention.

Fig. 4 is a horizontal sectional view of another modified form of covering material, according to my invention.

Similar reference characters indicate corresponding parts throughout the several figures of the drawing.

Referring to the drawing, the window sash comprises a glass 1, having a top rail (not shown), a bottom rail 2, and a pair of vertical side straps 3 connecting the top and bottom rails, only one of these side straps being shown. The side strap is of U-shape channel form in cross-section to receive the vertical edge of the glass, its vertical edges being bent outwardly and rearwardly as at 4—4, the rearwardly bent portions adapted to engage and cooperate with the edges of the facing material 5, according to my invention, which

is disposed about the side strap. The facing material 5 is in the form of a channel, of generally U-shape cross-section, and is cemented, riveted or otherwise suitably secured about the side strap, this material being of suitable composition similar to felt or leather as regards its wearing and sealing qualities. The sides of the covering material extend in parallel relation from the intermediate or connecting portion and their forward vertical edges are longitudinally split or bifurcated, as at 6, the inner surface of the split portions being curved or inclined to a point with the outer surfaces of the material. The rearwardly extending portions 4 of the side straps 3 engage within the split 6 of the covering material, spreading the outer portions thereof so that their edges are outwardly disposed with respect to the outer sides of the material, and in the assembled relation in the casing these outwardly disposed portions constitute the channel engaging or bearing surfaces of the covering material.

The channel within which the side strap of the sash is mounted is of generally U-shape in cross section, and comprises an outside stop of generally right angular form in cross-section having a flange 7 constituting the outer leg of the channel, a base 8, and a relatively narrow flange 9 at its inner end, parallel to the flange 7 and having a recess 10 at its inner side, the inside stop 11 adapted to be engaged over this flange 9 and within the recess 10 to complete the channel, the inside stop being provided with an offset flange portion 12 which embraces the outer side of the flange 9.

A channel strip 13 is disposed within the side channel and has its forward edges bent inwardly as at 14—14 to engage the facing material 5, these edges being spaced apart to provide a vertical slot through which the sash lock plunger 15 projects and is adapted to have vertical movement as the window is raised and lowered. The sash lock plunger projects through slots 16 and 17 respectively provided in the side stop 3 and facing material 5. A pressure spring is secured to the rear side of the channel strip and comprises a right angular base portion 18, spot-welded, or otherwise suitably secured to the rear face and one side face of the channel strip, an intermediate spring leaf portion 19 bent from one vertical edge of said base portion, and a spring leaf abutment portion 20 bent back from the edge of the spring leaf portion 19, this spring leaf portion 20 preferably having a convex engaging surface 21 for engaging the base of the side channel. In the assembled relation this spring is compressed

between the base 8 of the side channel and the base of the channel strip 13 and presses the latter inwardly against the facing material 5 to yieldingly retain the edge of the window sash against looseness and rattling and at the same time permit it to be easily raised and lowered. A rack member 22 is secured to the inner face of the channel member, as by spot-welding, riveting, or other suitable means, and is adapted to be engaged by the sash lock plunger 15 to retain the window sash at any desired point of adjustment.

The particular constructions of the outside and inside stops constituting the side channel and of the channel strip 13, pressure spring and rack, form no part of the present invention, and it will be understood that any suitable constructions may be employed.

The facing material according to my invention engages between the respective side legs 7 and 11 of the side channel with a clearance space 23—23 at each side and along the major portion of the sides of the facing material. The outwardly extending split end portions engage the surfaces of the side legs along very narrow surfaces, sufficient to provide the necessary yieldable support against looseness and rattling, and an effective weather sealing closure, while offering a minimum frictional resistance to the raising and lowering of the window.

In Fig. 3 I have shown a modification of the facing material in which the ends are split at 24—24 and are substantially right angular in cross section, this form of the invention being produced simply by splitting the ends of straight channel material. In Fig. 4 I have shown a further modification of the facing material in which the outer side surfaces 25—25 diverge outwardly from the intermediate or connecting portion to the forward extremities. In both of these modifications the facing material is engaged about the side strap in a similar manner to the first embodiment, and provides clearance spaces at each side and relatively narrow bearing and sealing surfaces for contact with the legs of the side channel.

I have illustrated and described preferred and satisfactory embodiments of the invention, but it will be obvious that changes may be made therein, within the spirit and scope thereof, as defined in the appended claims.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

1. For use in a window construction, including a side channel having a pair of spaced side legs and, a window sash, facing means for a vertical edge of said sash adapted to be engaged in said side channel between said side legs comprising a channel strip having its outer ends longitudinally split and outwardly projected at the outer sides whereby said sides are out of contact with said side legs along a major portion of each side of said strip and said outwardly projected ends engage said side legs over a relative small portion of the sides of said strip.

2. For use in a window construction, including a side channel having a pair of spaced side legs and, a window sash, facing means for a vertical edge of said sash adapted to be engaged in said side channel between said side legs comprising a

channel strip having its outer ends longitudinally split and outwardly projected at the outer sides whereby said sides are out of contact with said side legs along a major portion of each side of said strip and said outwardly projected ends engage said side legs over a relative small portion of the sides of said strip, the inner surfaces of said splits being inclined to a point with the outer side surfaces of said strip.

3. For use in a window construction, including a side channel having a pair of spaced side legs and, a window sash, facing means for a vertical edge of said sash adapted to be engaged in said side channel between said side legs comprising a channel strip having its outer ends longitudinally split and outwardly projected at the outer sides whereby said sides are out of contact with said side legs along a major portion of each side of said strip and said outwardly projected ends engage said side legs over a relative small portion of the sides of said strip, and a pair of longitudinal flanges carried by said sash at each side and engaged in said splits of said strip.

4. For use in a window construction, including a side channel having a pair of spaced side legs, a window sash and, a side channel strap engaged about a vertical edge of said sash having outwardly and rearwardly bent edge flanges at each side of said sash, facing means for said side strap adapted to be engaged in said side channel between said side legs comprising a channel strip having its outer ends longitudinally split and outwardly projected at the outer sides whereby said sides are out of contact with said side legs along a major portion of each side of said strip and said outwardly projected ends engage said side legs over a relative small portion of the sides of said strip, said rearwardly bent flanges of said side strap being engaged in said splits of said strip.

5. For use in window construction, including a side channel having a transverse portion and a pair of spaced side legs, the inner sides of which are parallel to each other, and a window sash having a marginal edge portion engaged in said channel for sliding movement therein, the sides of said marginal edge portion being in spaced and parallel relation to the inner sides of said channel, facing means for said marginal edge portion of said sash adapted to be secured to said sash and to have sliding movement therewith in said channel comprising a channel strip of U-shape in cross-section, the inner side surfaces of which are parallel and adapted to receive said marginal edge portion of the sash, the side legs of said strip being of increased thickness adjacent the open end of said channel strip whereby the outer side surfaces have outwardly projected bearing edge portions adjacent said open end adapted to slidably engage the side walls of said side channel along relatively narrow bearing surfaces, the remainder of said outer side surfaces being out of contact with said side walls of said side channel, and a spring pressed member disposed between said transverse portion of said side channel and the transverse portion of said channel strip and in respect to which said channel strip has sliding movement.

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