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A. S. CHESTON

2,246,409

MEANS FOR GLAZING WINDOWS

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Fig. 1.

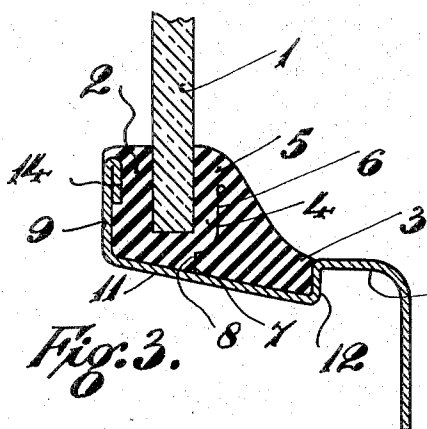


Fig. 2.

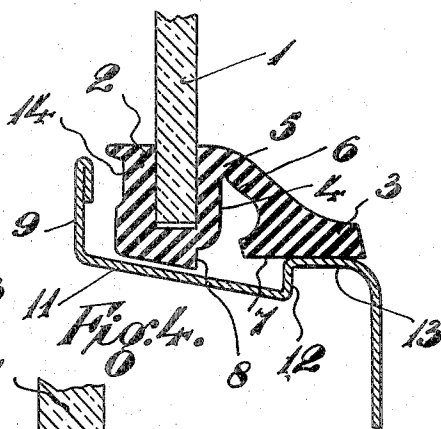


Fig. 3.

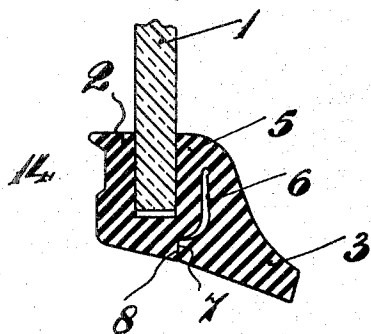


Fig. 4.

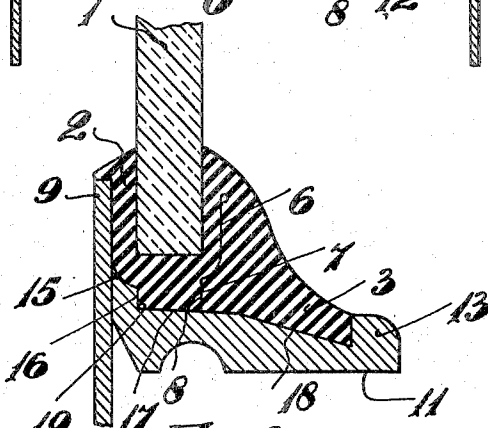


Fig. 5.

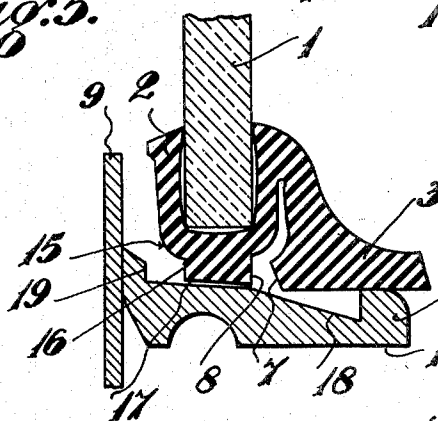
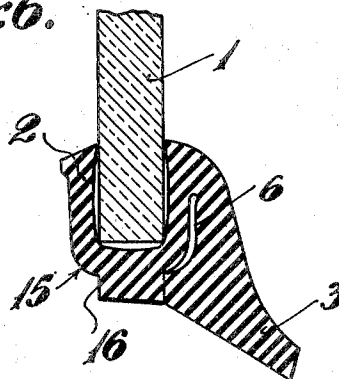


Fig. 6.



Inventor
ARTHUR SAM CHESTON
By *Joseph J. Johnson*
Attorney

UNITED STATES PATENT OFFICE

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MEANS FOR GLAZING WINDOWS

Arthur Sam Cheston, Birmingham, England, assignor of one-half to Herbert Linwood Sleight, Birmingham, England

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In Great Britain November 29, 1938

2 Claims. (Cl. 20—56.4)

This invention relates to means for glazing windows and is an improvement in or a modification of the invention described and claimed in Patent No. 2,056,024.

In the said patent window glazing means were described wherein a rubber or like resilient grooved strip or channel was applied to the edge of the window panel and had at one side a flexible and resilient flange or flap adapted, when the window panel is inserted into a frame bounding the window aperture, to be engaged behind an upstanding flange or lip, or with a recess, provided upon or in the said frame. In the form shown in Figures 1 to 4 of the drawing to the said patent the strip or channel had a laterally-extending flexible and resilient buttress flange or flap integral for its entire depth with the outer wall and base of the strip or channel, being inclined below the bottom of the channel at an angle thereto. Figures 5 and 6 of the said drawing show a modified form of strip or channel suitable for light panels, the outer wall of which had integrally joined to its upper edge an exterior depending or hinged resilient flap the lower edge of which was adapted to be engaged within a groove in the frame when the flap was pressed closely against the said outer wall.

In the case of the solid buttress form of flap shown in Figures 1 to 4 of the said earlier patent it is sometimes found especially where a heavy sectioned strip is needed or where the flap is given a steep downward slope for ensuring a tight glaze, that an excessive amount of drag is set up by the drawing of the flap over the lip or flange of the frame during the insertion of the window into place, such drag tending to pull the rubber strip around and off the edge of the glass.

On the other hand in the form shown in Figures 5 and 6 the flap is in effect, hinged to the channel and no undue drag is caused, as the flap can be forced into the groove after the window has been placed in its proper position in the frame. This form of glazing means, however, is only suitable for light windows, it being necessary to use a form substantially similar to that shown in Figures 1 to 4 for heavier work.

One of the objects of the present invention is to provide improved glazing means which, while being generally equivalent to and following the general lines of the glazing means shown in Figures 1 to 4 of the said earlier patent at the same time incorporates the advantage of the form shown in Figures 5 and 6 of said patent in so far as concerns the absence or reduction of

drag created by the flap during the mounting of the window in place, thereby allowing of the flap being sloped downwards at a considerable angle to the base so that when the window is finally in position the said flap causes an increased pressure to be exerted on the glass, thus resulting in a tighter glaze and ensuring that the glass as a whole is pushed bodily against the back wall of the channel which latter is then caused to bear hard on the rear wall of the metal frame.

According to the invention, window glazing means, being an improvement in or a modification of the invention described and claimed in Patent No. 2,056,024 comprises a resilient grooved strip or channel, adapted to fit the edge of the glass and to be inserted into a frame, and having hinged to the upper edge of its outer wall a laterally extending downwardly inclined flexible and resilient buttress flange or flap the lower portion of which is separate from or independent of the said outer wall and the base of the strip or channel and having an outer lateral edge or nose adapted to be engaged with and behind a lip or flange on the frame, said buttress flange or flap being adapted to turn or hinge outwards but normally tending to close towards or against the outer wall of the channel so as to incline downwards and outwards from the base of said channel. Thus, according to the invention, glazing means are provided having a resilient strip generally following the form shown in Figures 1 to 4 of Patent No. 2,056,024, but in which the said resilient strip is divided or slit from the base upwards to cause the laterally-extending flexible and resilient flap to be hinged to the upper part of the outer wall of the channel body, so as to be adapted to turn or hinge outwards relatively to said channel body.

The shape of the slit or division may be such that the hinged flap is formed at its inner side with a projecting rib that engages under the channel body, the said flap thus being prevented from moving directly upwards and thereby ensuring that the entire strip will function as if it were solid.

Figure 1 of the accompanying drawing is a vertical section through glazing means according to one form of the present invention, the window being shown secured in position.

Figure 2 is a sectional view showing the window in the act of being fitted into place, before the retaining flap is locked to the frame.

Figure 3 is a section through the retaining strip fitted to a window panel but before the latter is inserted into the frame.

Figure 4 is a sectional view representing a modification, the window being shown secured in position.

Figure 5 is a sectional view of this modification showing the window being fitted into place.

Figure 6 is a section through the rubber strip fitted to a panel but before being secured in the frame.

Referring to Figures 1 to 3 of the drawing, the edges of the glass window panel 1 which is to be fitted in the window aperture, has grooved rubber strips or channels applied to them. Each of these strips is generally of the channel form shown in Figures 1 to 4 of Patent No. 2,056,024 having a grooved body part 2 to receive the edge of the glass and a continuous outer flexible buttress flap 3 of substantially triangular section. This flap 3, however, instead of being integral or solid with the body 2 for its whole depth, as in the said specification, is hingedly joined at 5 to the outer wall 4 of the body at the top edge only thereof, its lower portion being separated from said wall by a slit or division 6 extending upwards from the underside of the strip. The flap 3, however, by its resilient nature, normally tends to close towards or against the face of the wall 4, as shown in Figure 3, so as to incline downwards and outwards from the base of the body 2 at a suitable angle, which may be a considerable angle to ensure a tight glazing. The slit 6 is shaped as shown, so as to provide upon the inner side of flap 3, a rib 7 that engages or interlocks with a groove or rebate 8 beneath the wall 4 of the channel body, so that direct upward movement of the flap is prevented, thus ensuring the whole section functioning as if it were solid.

The fixed frame which receives the panel 1 and which is secured within the window aperture, comprises an upstanding rear wall 9 provided with a folded-over top edge 10 and being carried by a wide base 11 which slopes downwards and outwards to the shoulder 12 of an upstanding lip or flange 13 at the outer side of the frame.

When the grooved strip or channel has been fitted to the glass panel 1 the latter is inserted into the frame aperture by a movement which is transverse to its own place. Thus, the rubber channel 2 is pushed over the frame base 11 until the rear wall fits closely against the frame wall 9, the sloping underside of the channel seating upon the rear portion of the sloping base 11. During this insertion of the panel into the frame, the buttress flap 3 first engages the lip 13 of the frame, and as the panel continues to be moved inwards, the said flap hinges upwards and separates from the outer wall 4 of the strip body, as shown in Figure 2.

When the panel has been fully inserted into its final position the flap 3 is forced over the lip 11 by a suitable tool, so as to tightly engage, by its outer edge or nose, behind the shoulder 12 of said lip, as shown in Figure 1, so that it lies

snugly within the sloping recess formed by the outer portion of base 11. The width of the rubber strip is slightly greater than the width between the frame lip 13 and the frame wall 9, so that the flap 3 is compressed laterally, causing it to press firmly against the shoulder 12 and against the sloping base 11, and also causing the outer wall of channel 2 to press upon the face of the glass 1 and the entire strip to be pressed against the rear frame wall 9. The rear side of the rubber strip is recessed at 14 to receive the turned over edge 10 of the frame wall, so that the strip is thereby prevented from rising behind the glass. The sloping underside of the channel body 2 in conjunction with the sloping base 11, facilitates the insertion of the window.

In the modification shown in Figures 4 to 6, the rubber strip 2 on the glass 1 is very similar to that shown in Figures 1 to 3, being slit at 6 to form the hinged buttress flap 3 with rib 7 engaging rebate 8, but the underside of the channel body 2 is sloped at a less angle than that of the flap 3, while the rear wall is flat but the rear corner is recessed at 15 to form a rearwardly-presented shoulder 16. The frame comprises a separate rear wall 9 and a base 11 having a slight slope at 17 to form a seating for the channel body 2, and a steeper front slope at 18 forming, with a lip 13 at the front, a sloping recess to receive the flap 3. The action is the same as in the previous case, the flap 3 hinging upwards as the panel is inserted into the frame (Figure 5) and being then forced over the lip 13 into the recess behind said lip, as in Figure 4. The rear portion of the base is provided with a shoulder at 19 to engage the shoulder 16 of the strip, so as to prevent the rear wall of the channel from rising behind the glass.

What I claim is:

1. A window construction comprising a window panel, a window frame having a continuous longitudinal recess in its inner periphery, and a resilient grooved glazing strip provided with a channel adapted to fit the edge of the window panel and having a flexible resilient and laterally-extending buttress flange hinged to the upper part of the outer wall of the channel and engaging the recess of the frame, said flange being provided on its inner side with a rib engaging a recess in the body of the strip below the outer wall of the channel.

2. A glazing strip for windows comprising a rubber channel having a lateral rebate in the base part beneath one side wall and provided with an integral laterally-extending buttress flange of substantially-triangular section hinged to the upper part of said channel wall and provided upon its inner face with a longitudinal rib, said flange normally closing towards the channel so that the rib engages the rebate in the base of the latter.

ARTHUR SAM CHESTON.