Aug. 12, 1941. W. C. PASSER 2,252,197

WINDOWPANE FASTENER

Filed June 12, 1939

Fig. 1.

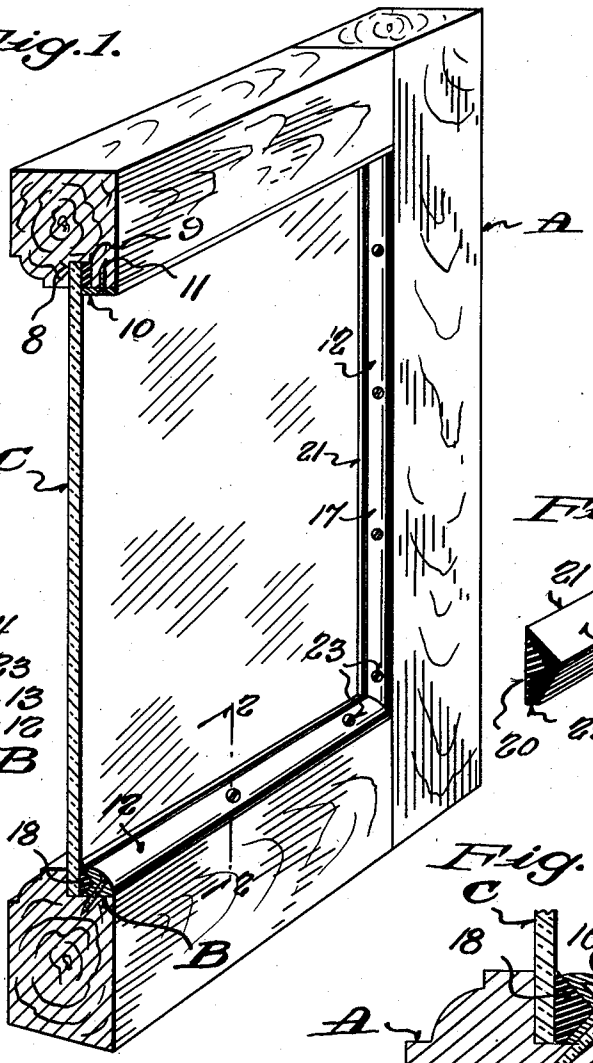


Fig. 2.

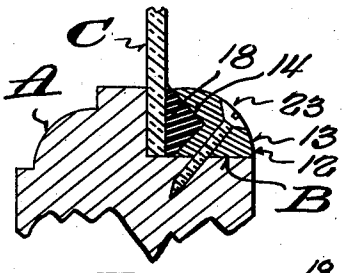


Fig. 3.

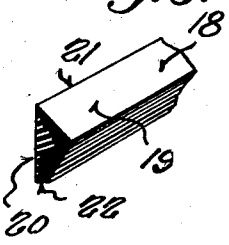


Fig. 4.

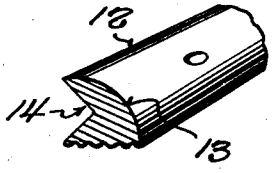


Fig. 7.

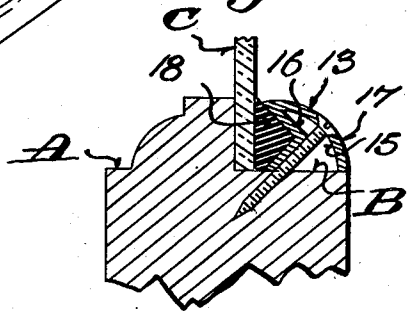


Fig. 5.

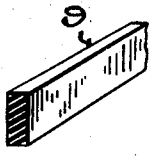
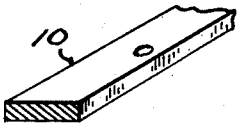


Fig. 6.



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Patented Aug. 12, 1941 2,252,197

UNITED STATES PATENT OFFICE

2,252,197

WINDOWPANE FASTENER

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Application June 12, 1939, Serial No. 278,709

1 Claim. (Cl. 20—56.4)

This invention pertains to fastening strips for window panes, to replace the usual zincs and putty.

For the above purpose, the invention has primarily as its object the provision of a metallic fastening strip, having one of its faces longitudinally recessed for reception of a yieldable sealing strip bearing against the window pane, to prevent contact of the metallic strip with the pane, and the entrance of water or moisture between the strip and the pane.

Incidental to the foregoing, a more specific object of the invention resides in the provision of an extruded metallic fastening strip, having its vertical face longitudinally grooved, and preferably angular in cross section for reception of a sealing strip formed of yieldable material, such as rubber, plastic, composition, and the like, said yieldable fastening strip conforming to the shape of the groove, and having a flat face bearing against the window pane, to space the strip and window pane and prevent contact between the two, the upper edge of the strip terminating in a feather edge above the top edge of the fastening strip.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination, and arrangement of parts, substantially as hereinafter described, and more particularly defined by the appended claim, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claim.

In the accompanying drawing is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised for the practical application of the principles thereof.

In the drawing:

Figure 1 is a fragmentary perspective view of a conventional window sash equipped with the present invention;

Figure 2 is an enlarged fragmentary section taken on the line 2—2 of Figure 1;

Figures 3 and 4 are fragmentary perspective views of the yieldable sealing strip and metallic fastening strip, respectively;

Figures 5 and 6 are similar views of fastening elements employed for the top edge of the pane in certain types of sashes; and

Figure 7 is an enlarged fragmentary section similar to Figure 2, illustrating a modified form of the invention.

Referring now more particularly to the accompanying drawing, the letter A designates a conventional window sash, the sides and bottom of which are provided with a rabbet B, for receiving the edges of a window pane C. In the sash illustrated, the top of the frame, instead of being rabbeted, is provided with a groove 8, which receives the upper edge of the pane C, together with a yieldable strip 9, which is compressed within the groove and held in place by a retaining plate 10 secured to the sash frame by screws 11, or other suitable fastening means.

The present invention comprises a metallic fastening strip 12, preferably formed of extruded aluminum alloy, which is exceedingly light, durable, and rustproof. The outer surface 13 of the fastening strip may be rounded as shown, or beveled in any desired manner, while the inner, vertical face of the strip is provided with a longitudinal groove or recess 14, preferably angular in cross section, and extending from the top to the bottom edge of the strip.

In that form of the invention illustrated in Figures 1 to 4 inclusive, the fastening strip is extruded in a solid bar, whereas in the modification shown in Figure 7, the strip is provided with an inner core 15 extending from the lower edge of the strip, to form a channel comprising inner and outer walls 16 and 17, respectively. In this form of the invention, obviously a certain amount of resiliency is obtained between the walls 16 and 17, for the purpose hereinafter described. It will also be appreciated that in forming the strip in a channel, a substantial saving is effected in material.

As best shown in Figures 1 and 2, a yieldable sealing strip 18 is positioned within the longitudinal groove 14 of the fastening strip, the outer surface 19 conforming in contour to the groove 14, while the inner face 20 is flat for engagement with the window pane C.

It will also be noted that the top of the sealing strip terminates in a feather edge 21, while the lower edge is slightly slabbed off at 22, to seat upon the rabbet B and space the metallic fastening strip from the window pane. The feather edge 21 of the sealing strip extends slightly above the top of the fastening strip, as best shown in Figure 2, and consequently, contact between the top edge of the fastening strip and the window pane is prevented.

In applying the invention to a conventional sash, the sealing and fastening strips are assembled on the sash in the manner illustrated, after which screws 23, passing through the fastening strip at an angle, are threaded into the sash.

Because of the angle of the screws 23, the fastening strip will be drawn down upon the rabbet B and inwardly toward the window pane C, which action causes the sealing strip 18 to be slightly compressed and forced into intimate contact with the abutting surface of the window pane, which creates a tight seal between the two, to prevent the entrance of moisture and water between the pane and fastening strip. Due to the feather edge 21 of the sealing strip, it will also be apparent that any moisture draining down from the pane will be shed over the outer face 13 of the fastening strip, a deep pocket for accumulation of water being avoided.

The advantage of the channel form of fastening stripping shown in Figure 7 results from the fact that the resiliency provided allows a tension to be exerted upon the inner wall 16, which compensates for compression of the sealing strip 18 through age or deterioration, thus materially prolonging the effective sealing of the strip.

From the foregoing explanation, considered in connection with the accompanying drawing, it will be seen that an exceedingly simple and effective fastening strip for window panes has been provided, which not only securely seals the pane and sash, but is also easy to attach, and requires no painting or coating, such as putty necessitates.

As best shown in Figure 4 of the drawing, the bottom of the strip 12 is preferably corrugated, whereby the strip will make a multiple series of contacts to more effectually seal the joint.

While the invention shown is applied to the sides and bottom of the sash, it will be understood that the same is equally applicable to the top of the sash, when provided with a rabbet. Otherwise, in groove sashes, such as shown, the form of fastener illustrated is employed to provide a complete metallic installation.

I claim:

A window pane fastener comprising, an extruded metallic strip forming a channel composed of inner and outer walls, the inner wall having a longitudinal angular depression extending from the top edge of said inner wall to its bottom edge, a yieldable strip positioned in said longitudinal depression for bearing against a window pane, said yieldable strip serving to space said metallic strip from the window pane and forming a seal therebetween, the side walls of said channel being relatively resilient to exert tension upon said yieldable strip, and having attaching screws passing through the outer wall only to create tension upon the inner wall toward the window pane.

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