Feb. 27, 1951 J. SYLVAN 2,543,559

WINDOW ASSEMBLY

Original Filed May 7, 1945

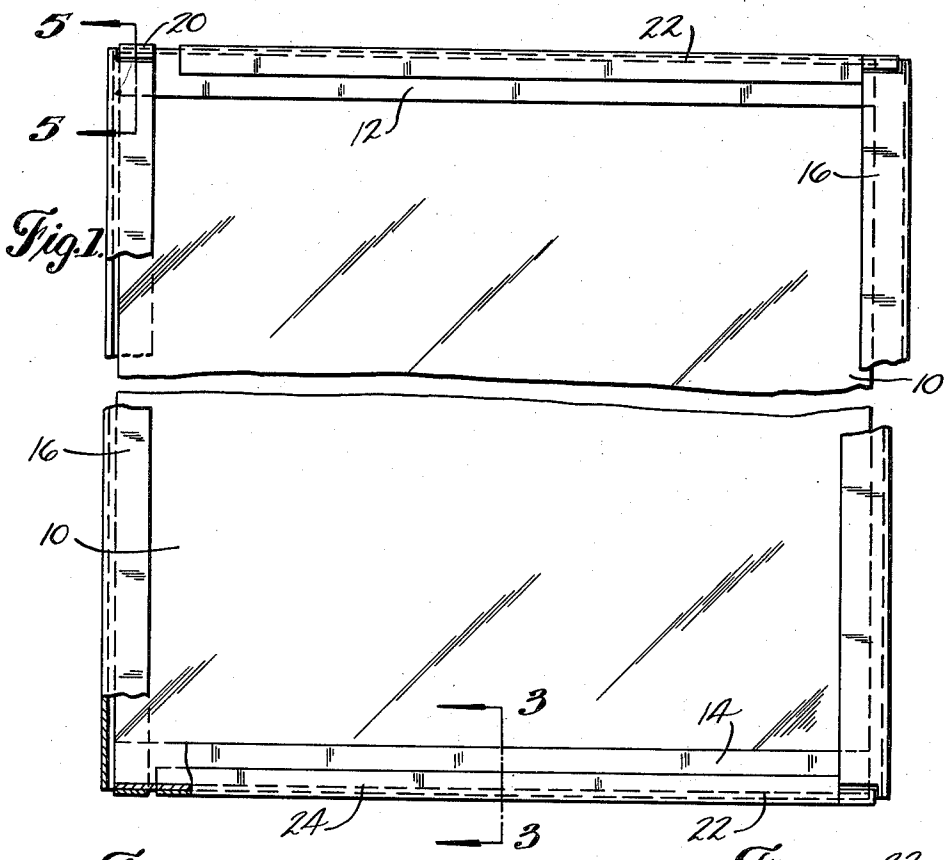


Fig. 1.

Fig. 2.

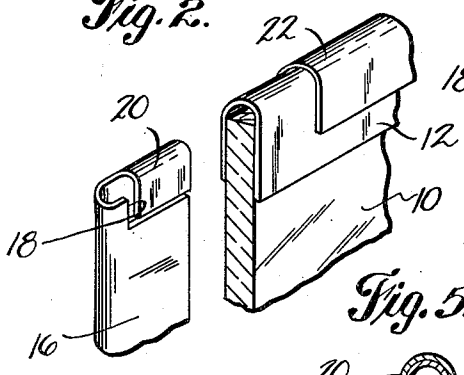


Fig. 4.

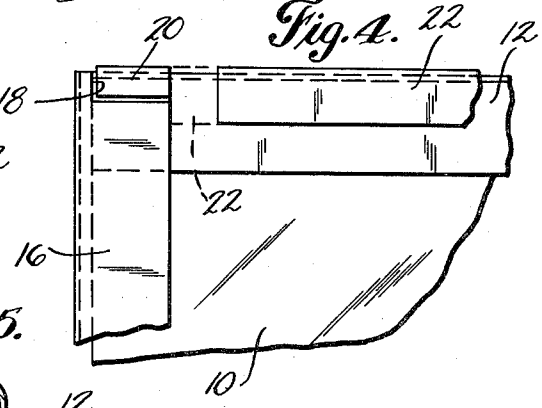


Fig. 5.

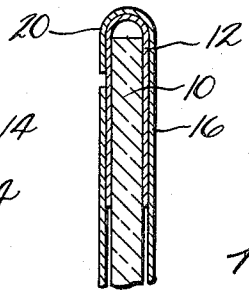
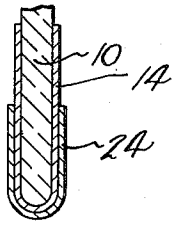


Fig. 3.



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WINDOW ASSEMBLY

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Original application May 7, 1945, Serial No. 592,340. Divided and this application September 30, 1946, Serial No. 700,252

3 Claims. (Cl. 189—76)

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This invention relates to improvements in window assemblies. This application is a division of my application 592,340, filed May 7, 1945, Patent Number 2,525,322, patented October 10, 1950.

An object is to provide a window assembly including a window pane and a sash therefor of improved design and novel construction and wherein opposed sash members are relatively adjustable to vary the over-all distance established thereby.

This improved window assembly is illustrated as comprising sheet metal sash members which embrace the window pane and are secured together to constitute a simple unitary window and sash assembly.

The sash structure includes a pair of end sash rails and a pair of side sash rails which embrace the end and side margins, respectively, of a glass pane. At least one of the sash rails is adjustable with respect to the pane and toward and away from the other sash rail of the pair, and means is provided to maintain said adjustment. The adjustable sash rail is here illustrated as one of the side sash rails and means is associated with the end sash rails to maintain its adjustment. Such means preferably comprises a supplemental end sash rail which grippingly engages the end rail of the sash and is adjustabiy slidable lengthwise thereover to maintain the adjustable side sash rail at different positions of lateral adjustment.

In the embodiment here shown, the sash structure of the character above described includes top and bottom supplemental sash rails which are slidingly adjustable over the top and bottom rails of the sash between the side rails thereof and are adapted to maintain the sash side rails at adjusted positions.

Other objects, advantages, and meritorious features of the invention will more fully appear from the following description, appended claims and accompanying drawing wherein:

Figure 1 is an elevation partly broken away of a window assembly embodying this invention,

Figure 2 is a perspective of a disassembled end corner section of the sash and pane structure,

Figure 3 is a cross-sectional view taken on the line 3—3 of Figure 1,

Figure 4 is a broken away fragment of one of the top corners of the window assembly, and

Figure 5 is a cross-sectional view taken on the line 5—5 of Figure 1.

In the drawing, the window pane is indicated by the numeral 10. A top sash rail which is channel-shaped in cross section is indicated by the

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numeral 12. It is shown in Figures 1 and 4 as extending along and embracing the top margin of the glass pane. A bottom sash rail indicated by the numeral 14 is channel-shaped in cross section and is shown in Figure 1 as extending along and embracing the bottom margin of the glass pane.

A pair of side rails are indicated as 16. These side rails are channel-shaped in cross section and are shown as extending along and embracing the side margins of the glass pane. Each side rail has one side wall cut away at one end as shown at 18 and the opposite side wall extended and folded over the end rail and into such cut-out as shown at 20. Each side rail at its end has a channel width sufficient to receive therein the adjacent end of an end rail as shown in Figure 5 so that the end portion of the side rail overlaps the end rail.

The top sash rail is here shown as provided with a channel-shaped supplemental sash rail 22 which is of shorter length than the sash rail 12 and grippingly embraces the same, urging the same against the glass pane. This sash rail 22 is adjustable lengthwise over the sash rail 12 and between the side sash rails 16 and is so grippingly engaged with the sash rail 12 as to maintain different positions of adjustment thereover.

The bottom sash rail 14 is provided with a supplemental sash rail 24 which is of shorter length than the sash rail 14 and is grippingly engaged thereover urging the same against the glass pane. The sash rail 24 is adjustable lengthwise over the sash rail 14 and between the side rails 16 and is so grippingly engaged with the sash rail 14 as to maintain its position of adjustment thereover.

In the wooden sash of commerce it is common practice to fit a sash to a window opening by removing some of the material from the edge of the sash. Window openings vary somewhat in size and the sash rails of commercial window sash are generally made of greater width than necessary in order that they can be cut down to fit window openings of different size.

With my improved metal sash the same result is accomplished in a simple manner by positioning a side sash rail at the desired point to provide a window sash of the required size to fit the opening and then adjusting the supplemental top and bottom sash rails to maintain the adjusted side sash rail at its point of adjustment. Each side rail of the sash here shown is capable of lateral adjustment with respect to the pane. Each side sash rail may be advanced toward or

withdrawn away from the pane 10 and over the top and bottom sash rails 12 and 14 to increase or decrease the width of the window assembly. Each supplemental sash rail is adapted to be adjusted over the end sash rail embraced by it to engage at its end a side sash rail to maintain the sash side rail at the position to which it may have been adjusted with respect to the pane and with respect to the top and bottom sash rails of the sash.

When the adjustment of a side sash rail to fit the window opening has been accomplished the supplemental end sash rails are then adjusted over the end sash rails until each supplemental sash rail engages at one end the adjusted side sash rail as shown at the right at the top of Figure 1 and in dotted outline in Figure 4. The adjusted side sash rail is maintained at its position of lateral adjustment with respect to the end rail of the sash by the end engagement of the supplemental sash rails therewith.

What I claim is:

1. A window comprising, in combination with a window pane, a channel-shaped sash top rail extending along and embracing the upper edge of the window pane, a channel-shaped sash bottom rail extending along and embracing the lower edge of the window pane, a pair of channel-shaped sash side rails extending along and embracing the opposite side edges of the window pane and overlapping the end portions of the top and bottom rails, each side rail of the sash being adjustable toward and away from the pane, a supplemental channel-shaped top rail extending along and embracing the top rail of the sash between the side rails thereof, a supplemental channel-shaped bottom rail extending along and embracing the bottom rail of the sash between the side rails thereof, each supplemental rail being adjustably slidable lengthwise over the sash rail embraced thereby and adapted to engage the overlapping end of a side rail of the sash to maintain the side rail at laterally adjusted positions with respect to the glass pane.

2. In a window and sash assembly, a window pane, a frame for the pane including a pair of end sash rails extending along and embracing the two end margins of the pane and a pair of side sash rails extending along and embracing

the two side margins of the pane, the two members of one pair of sash rails being relatively adjustable toward and away from each other to different spaced apart positions of adjustment with respect to the two members of the other pair of rails, a pair of supplemental channel-shaped rail members extending along and grippingly embracing the two members of said other pair of rails each supplemental rail being relatively adjustable lengthwise over the rail it embraces into abutting contact at one end with one of the adjustable sash rails to maintain the same at its adjusted position.

3. In a window and sash assembly, a window pane, a channel-shaped top sash rail extending along and embracing the top margin of the pane, a channel-shaped bottom sash rail extending therealong and embracing the bottom margin of the pane, a pair of channel-shaped side sash rails extending along and embracing the side margins of the pane and overlapping the top and bottom sash rails and folded over the top and bottom margins thereof, at least one of the side sash rails being adjustable laterally with respect to the pane and relative to the top and bottom sash rails, a channel-shaped supplemental top rail extending along and embracing the top sash rail and adjustable lengthwise thereover between the top end portions of the side rails into abutting engagement with the adjustable side sash rail and a channel-shaped supplemental bottom rail extending along and embracing the bottom sash rail and adjustable lengthwise thereover between the bottom end portions of the side rails into abutting engagement with the adjustable side sash rail.

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