Jan. 22, 1957 M. ROYER 2,778,070

WINDOW PANE UNIT

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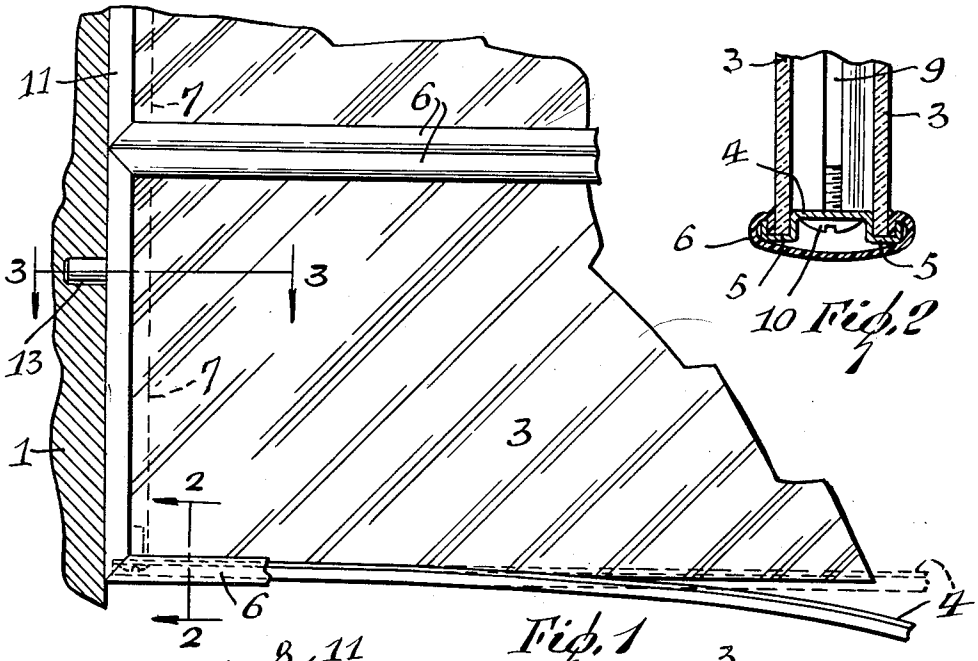


Fig. 1

Fig. 2

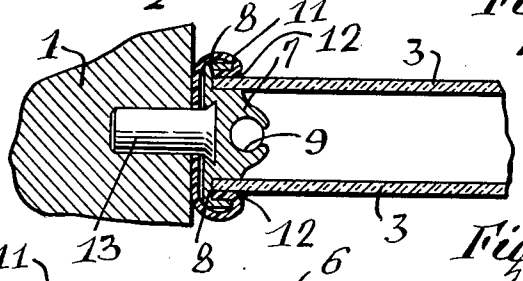


Fig. 3

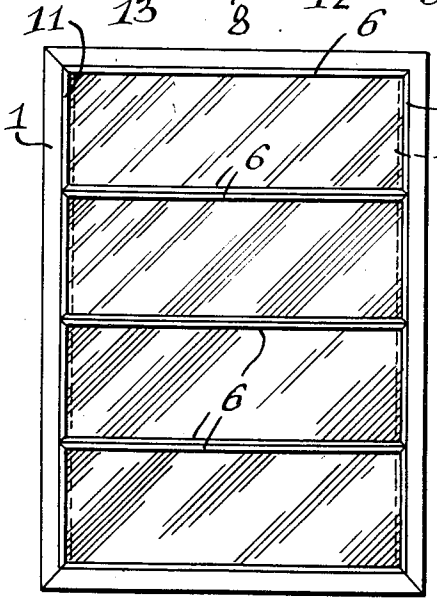


Fig. 4

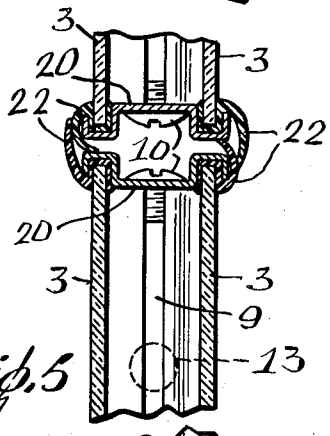
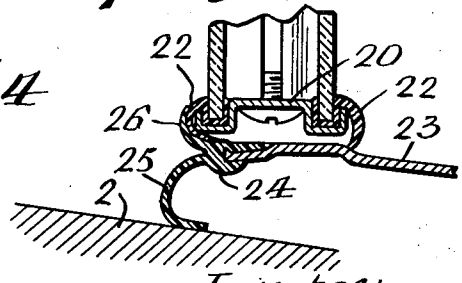


Fig. 5



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WINDOW PANE UNIT

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2 Claims. (Cl. 20—56.5)

The present invention pertains to a novel window pane unit for an awning or jalousie type of window.

The principal object of the invention is to provide a resilient seal that covers the metallic frame of the panes to prevent vapor condensation or sweating. Another object is to provide a frame that holds two spaced panes of glass forming a unit. The frame co-operates with the seal to form an air-tight space between the panes, thereby trapping inner air of low humidity and high insulation value.

Several such units form a window, and each unit is pivoted on a horizontal axis. The panes of each unit are framed and sealed at all four edges. At the contacting edges of adjacent units, the resilient seals engage each other firmly without interfering with the pivotal movement.

In a modification of the invention, the seals at contacting edges overlap one another, in reversed relation at opposite sides of the panes, forming a lap point rather than a butt joint and at the same time permitting the pivotal movement.

The invention is fully disclosed by way of example in the following description and in the accompanying drawings in which:

Figure 1 is a vertical elevation of a window, partly in section;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is a section on the line 3—3 of Figure 2;

Figure 4 is a front elevation; and

Figure 5 is a vertical cross section of a modification.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

Figures 1 and 4 show an upright 1 of a window frame rising from the sill 2 in Figure 5 in the usual manner. Several pane units are mounted one over the other in the frame and are provided with horizontal pivots in the manner of awning or jalousie type windows.

Each pair of spaced panes 3 is framed at the longitudinal edges in a double-U member comprising a bridge 4 joining a pair of U-shaped seats 5 which receive the panes.

A sealing strip 6 of plastic or other resilient material spans the outside of each of the frame sides and has its longitudinal edges inserted in the respective seats 5 against the outer surfaces of the panes, as shown in Figure 2.

At the vertical edges, the seating member is a block 7 extending between the panes, as shown in Figure 3, and is formed with a pair of seating grooves 8 that receive the panes. A cylindrical cavity 9 is formed to the full length of block 7. Before applying the bottom strip 6, a self-tapping screw 10 is passed through the lower and upper frame members 4, 5 and tapped into the ends of hole 9.

The side frame members 7 are also covered on the outside with a sealing strip 11 having its edges inserted at 12 in the seating grooves 8. From each block 7 a pivot pin 13 extends into the adjacent frame side.

In the modification shown in Figure 5, the seating members 20 are formed as in Figure 2 and are lined each with a channel sealing member 21 having outward lips 22. The lips of adjacent seals overlap each other, but oppositely on opposite sides of the window to permit the horizontal pivotal movement.

At the bottom the main metal frame 23 carries at its free edge another sealing strip 24 having a downward lip 25 and an upward lip 26. The lip 25 overlaps the adjacent lip 22, and the lip 25 engages the sill 2, to form a tight seal between the sill and the window.

Double-grooved members 4—5 are curved outwardly, as seen in Figure 1, before assembly in order to provide constant pressure and alignment against the edges of panes 3.

Although specific embodiments of the invention have been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention by the appended claims.

What I claim is:

1. In a double pane window unit, a pair of spaced panes, a double-grooved member in which the edges of said panes are seated, sealing strip spanning the outside of said double-grooved member, the edges of said sealing strip being inserted in the grooves of said member.

2. In a double pane window unit, a pair of spaced panes, a double-grooved member in which the edges of said panes are seated, the members at two parallel edges of said panes being projected into the space between the panes, the ends of one of the remaining members being secured to the projected portions, sealing strips spanning the outside of each member, the edges of said strips being inserted in the grooves of said member.

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