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AUXILIARY WINDOW SASH

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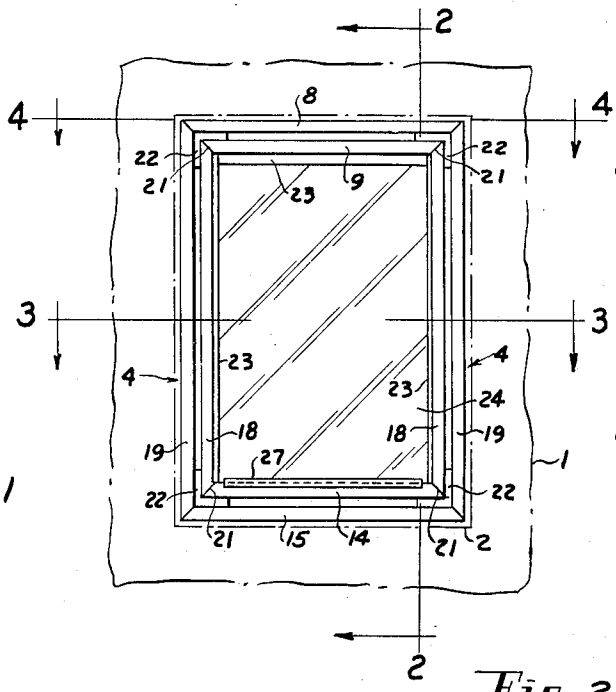
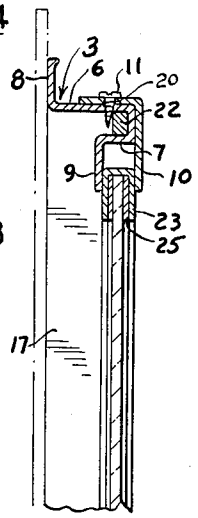



Fig. 1



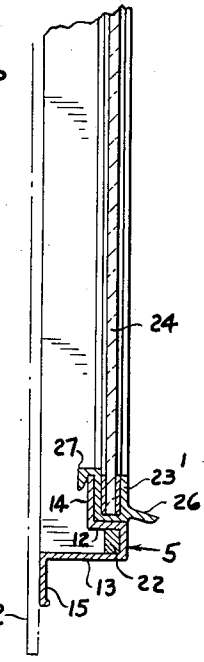




Fig. 2

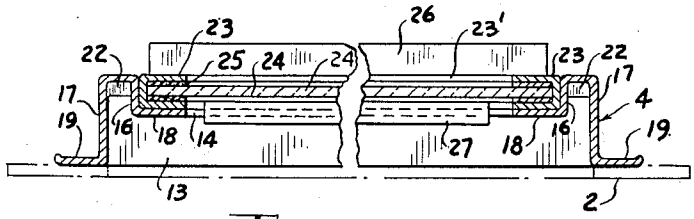



Fig. 3

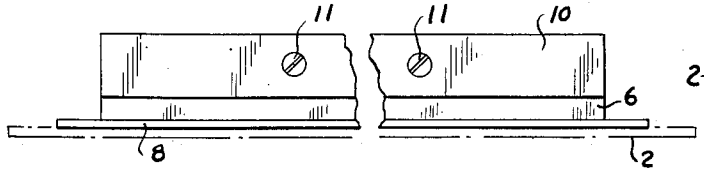



Fig. 4

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## AUXILIARY WINDOW SASH

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3 Claims. (Cl. 20—55)

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The present invention pertains to a novel auxiliary window sash, adapted primarily for attachment to a permanent sash and designed to receive a panel constituting a storm window.

The principal object of the invention is to provide a simple, inexpensive and easily installed auxiliary sash frame in which the panel is easily inserted and demountable.

In the accomplishment of this object, the auxiliary sash is a rectangular frame consisting preferably of extended members. This frame has an outwardly extending flange for attachment to the permanent sash. The top member of the frame provides a downwardly opening channel, and the bottom member provides a seat, both for the inserted panel.

Another object of the invention is to provide means for retaining the lower edge of the panel while its upper edge is received in the channel. For this purpose the bottom member of the sash frame has an upwardly extending flange adjacent to the seat. The lower edge of the panel frame carries an angle member that receives the upper edge of the flange when the panel is inserted. A tight fit is thereby provided and rattling is avoided. The lower edge of the panel frame further carries a lip for manipulation.

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

Figure 1 is an elevation from the inside of an installation according to the invention;

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

Figure 3 is an enlarged section on the line 3—3 of Figure 1; and

Figure 4 is a plan view on the line 4—4 of Figure 1.

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

In Figure 1 is shown a building wall 1 in which is inserted a conventional metal window frame 2. The frame 2 is fitted with an auxiliary sash which constitutes the invention, and this sash is adapted to receive an easily demountable glass sheet, as will presently be described.

The auxiliary sash consists of a top member 3, side members 4 and a bottom member 5, preferably consisting of extruded aluminum all of which are generally similar in cross section.

The top member or rail 3 is basically a V-section lying sidewise with its upper side 6 longer than the lower side 7. A lip 8 extends upward from the free edge of the side 6, and another lip

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9 extends downward from the free edge of the side 7, as may be seen in Figure 2. The channel portion faces inwardly of the building. A retaining strip 10 of angle section has one side fastened by screws 11 upon the side 6, with its other side lying against the bottom of the channel and extending downward about as far as the lip 9, forming therewith an inverted channel for a purpose that will presently be described.

The bottom rail or member 5 consists also of a channel section facing inwardly of the building and having its upper side 12 about half as long, as the lower side 13. At the free edge of the upper side is an upwardly extending flange 14 lying in the same vertical plane with the flange 9. Another vertical flange 15 depends from the free edge of the longer side 13, and lies in the same plane as the flange 8.

The side rails 4 are alike and in right and left hand relation. Each includes a channel section standing vertically and facing inward of the building. The side 16 inward of the frame is longer than the outer side 17. At the free edge of each side 16 is an inwardly extending flange 18, and an outward flange 19 extends from the free edge of each side 17. The flanges 19 lie in the same vertical plane as the flanges 8 and 15 for attachment to the permanent frame 2 by suitable means such as screws passed through holes 20 in the flanges.

The frame members are fastened together in any suitable manner to form a rigid rectangle. Preferably the ends are mitered at 21 and secured by welding to corner fillers 22 set in the channels.

The panel for filling the auxiliary sash frame is a suitably framed light of glass. It includes its own frame consisting of four channels 23 facing inwardly and secured together at their ends to form a rectangle. In the case of a pane of glass 24 around which the frame 23—23 is assembled, cushioning and seating strips 25 are inserted between each surface of the glass and the channels. There may also be provided a similar frame carrying a screen, the two demountable frames being interchangeable according to seasons.

The lower channel 23, however, is of a special design. From the lower edge of its outer side extends laterally a flange or lip 26 for a purpose that will presently appear. At the upper edge of the inner side is formed a downwardly extending angle section 27 projecting horizontally toward the interior of the building.

The insertion of the panel is extremely simple, and this is one of the characteristics of the

invention. The upper end of the panel is first inserted and pushed upward in the channel formed by the parts 9 and 10. While held by the lip 26 it is dropped so that the angle 27 rests upon and encloses the upper edge of the flange 14, with the bottom of the channel 23 resting on the upper side of the lower frame channel 5. The distance between the lower edge of the flange 9 and the upper edge of the flange 14 is somewhat less than the overall height of the panel frame. Consequently the upper channel 23 is held in the channel 9, 10 while the lower channel 23 is held and supported as described. The vertical channels 23 are further in engagement with the flanges 18 as shown in Figure 3. The panel frame is thus held with a tightness adequate for a storm sash or a screen and is easily installed, removed or interchanged as heretofore described.

Although a specific embodiment of the invention has 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 as indicated by the appended claims.

What we claim is:

1. An auxiliary window sash comprising a hollow rectangular frame of uniform channel section and having one side of said channel section longer than the other, the longer side being outward, lips extending outward from the free edges of said section in vertical planes, the lip on the longer side being adapted for attachment to a supporting structure, a retaining strip secured to the top of said frame and extending downward in spaced and parallel relation to the lip on the shorter side of said section at said top, a panel frame fitted in the first frame and having its upper edge slidably fitted between said retaining strip and the last named lip, and a



downwardly opening angle member carried by the lower edge of said panel frame and adapted to receive snugly the lip on the on the shorter side of said channel section at the bottom side of said rectangular frame.

2. An auxiliary window sash as in claim 1, further characterized by fillers secured in the corners of said channel section.

3. An auxiliary window sash comprising a hollow rectangular frame of uniform channel section and having one side of said channel section longer than the other, the longer side being outward, lips extending outward from the free edges of said section in vertical planes, the lip on the longer side being adapted for attachment to a supporting structure, a retaining strip secured to the top of said frame and extending downward in spaced and parallel relation to the lip on the shorter side of said section at said top, a panel frame fitted in the first frame and having its upper edge slidably fitted between said retaining strip and the last named lip, said panel frame abutting the lip on the shorter side of said channel section, and means for holding said panel frame against the last named lip.

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