Feb. 22, 1944. C. D. LOWRY 2,342,352

SASH AND STORE FRONT CONSTRUCTION

Filed June 23, 1941

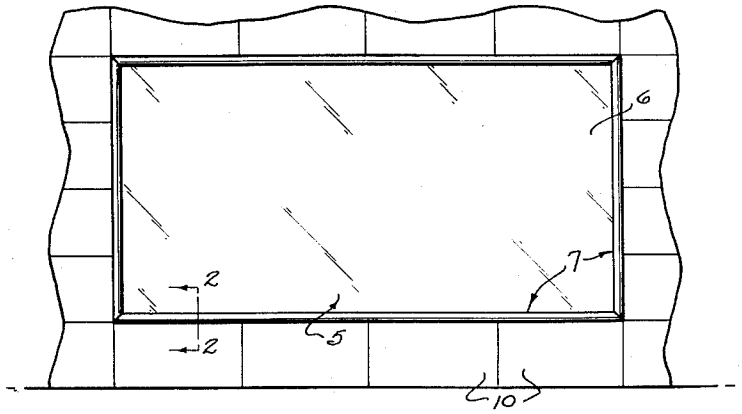


Fig. 1.

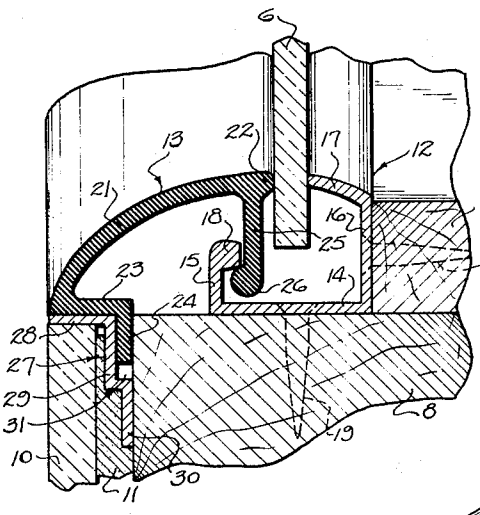


Fig. 2.

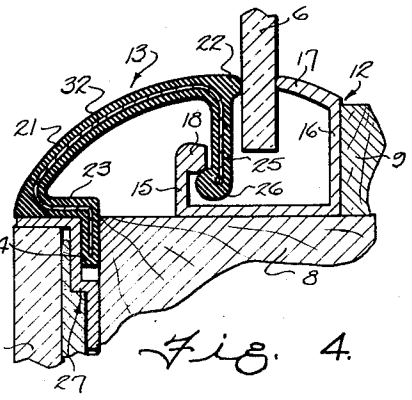


Fig. 4.

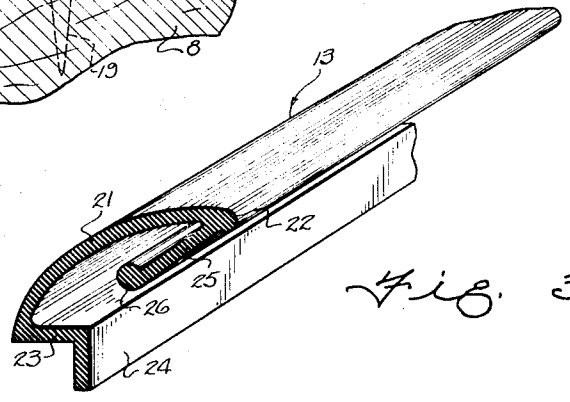


Fig. 3.

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SASH AND STORE FRONT CONSTRUCTION

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9 Claims. (Cl. 20—56.4)

The present invention relates to improvements in sash and store front constructions and has for its primary object the provision of novel means for mounting and retaining a pane of glass in proper position in a glazed opening.

Another object of the invention is the provision of a sash and store front construction embodying front and rear glass-retaining sections detachably associated with one another in a novel manner to yieldably yet firmly clamp the pane of glass in position therebetween.

Another object of the invention is the provision of a sash and store front construction of the above character of simple, durable construction embodying a stationary rear section and a movable front section of resilient, compressible material adapted to interengage and cooperate with said stationary section for securing the pane of glass in place and which also forms with the glass pane a fluid-tight seal to prevent water or moisture from passing into the sash construction.

A further object of the invention is the provision of a sash and store front construction of the above character in which the movable front section can be installed entirely from the front of the window and further, wherein no screws, metal clips or other fastening elements are required for securing said movable section to said stationary section.

Other objects and advantages of the invention will become more apparent during the course of the following description, when taken in connection with the accompanying drawing.

In the drawing, wherein like numerals are employed to designate like parts throughout the same:

Fig. 1 is a front elevation illustrating a sash or store front embodying the present invention;

Fig. 2 is a vertical transverse sectional view through the sash construction taken substantially on line 2—2 of Fig. 1;

Fig. 3 is a perspective sectional view of the movable front section; and

Fig. 4 is a vertical transverse section showing a modified form of front section.

With reference now to the drawing, 5 designates in its entirety a glazed opening in which is mounted a sheet or pane of glass 6 supported in the window opening by the improved sash construction 7 arranged at the top, bottom and sides of said window. The numeral 8 designates the bottom rail or sill of the wooden frame in which the pane of glass 6 is mounted and which carries the usual wooden back-stop 9. The exterior surface of the wall containing the window may, if desired, be faced with stone, Vitrolite or other ornamental slabs or panels 10 secured to the supporting wall by a layer of mastic 11 or other suitable adhesive material.

The sash construction 7 comprises a rear stationary section 12 and a movable front section 13 associated with one another to clamp the pane of glass 6 in place therebetween. Although the rear section 12 may be of either rolled or extruded metal, it is preferably formed from a hard plastic material such as a urea formaldehyde type of resin or hard rubber. This section includes a bottom wall 14 and the spaced parallel front and rear walls 15 and 16 respectively. The rear wall 16 terminates at its inner end in a forwardly curved flange 17 engaging the rear surface of the pane of glass 6, while the front wall 15 is relatively shorter than the rear wall and has formed at its inner end a rearwardly projecting rib 18. The rear section 12 may be secured to the frame 8 by screws or the like 19 and also, if desired, to the backstop 9 by screws or the like 20.

The front section 13 comprises a face-piece 21 having any desired profile and provided at its inner end with a rounded lip 22 engaging the outer surface of the pane of glass 6. Formed integral with the face-piece 21 at the outer end thereof is a base portion 23 terminating at its rear edge in an outwardly projecting leg 24 extending at substantially right angles to the base portion 23. Formed upon the under side of the face-piece 21 closely adjacent the glass contacting lip 22 is an attaching arm 25 provided at its outer end with an enlarged bead 26 adapted to be received beneath and interengage with the rib 18 on the front wall 15 of rear section 12.

The front section 13 is formed of a suitable resilient, compressible material, preferably rubber, rubber composition or the like. Thus, the front section 13 may be of one-piece extruded rubber and when formed the attaching arm 25 is normally disposed at an acute angle with respect to the face-piece 21 and lies substantially parallel therewith as shown in Fig. 3. However, upon installation of the front section, the arm 25 is drawn away from the face-piece 21 so that it is disposed at substantially right angles or perpendicular with respect to said face-piece as shown in Fig. 2. The extending of the arm 25 in this manner and the insertion thereof behind the front wall 15 of rear section 12 places said arm under tension and causes the front section to be urged rearwardly to maintain the lip 22

thereof in yieldable engagement with the pane of glass.

In installing the front section 13, it is necessary that the outer end of the face-piece 21 be also secured in place. With this in mind, there is provided an edging 27 of metal, plastic or hard rubber comprising a portion 28 engaging the edges of the facing panels 10 and provided at its rear edge with an outwardly turned back portion 29 having a laterally offset end portion 30. The use of this edging results in the provision of a space or recess 31 between the wooden frame 8 and back portion 29 of said edging and in this space or recess is inserted the leg 24 of the front section 13.

Upon installation of the front section 13, the attaching arm 25 is drawn away from the face-piece 21 and inserted behind the front wall 15 of the rear section 12. At the same time, the leg 24 is also inserted in the recess 31 at one end of said rear section. When it is desired to remove the front section 13, one end thereof can be disengaged from the rear section 12 and the said front section then readily peeled out.

With the construction above-described, the pane of glass 6 can be firmly yet yieldably held in place to allow for expansion and contraction of the glass to minimize danger of glass breakage when it is subjected to vibration or pressure from external sources. In other words, the front section 13 exerts a yielding cushioned pressure upon the glass and will conform to any irregularities in the glass surface so that the pressure exerted thereupon will be uniform. This type of mounting is also particularly desirable in mounting bent or curved glass sheets as the resilient, compressible front member will serve to take up any irregularities in the glass. Furthermore, the front section not only serves to uniformly cushion the pane of glass but also engages the glass with sufficient pressure to form therewith a fluid-tight seal for preventing water or moisture from passing downwardly into the sash construction. As also pointed out above, the front section can be installed entirely from the front of the window and that no screws, metal clips or other fastening elements are required for securing it in place. This will naturally result in the saving of much time and labor in making the installation as well as a saving in materials.

In Fig. 4 is shown a slightly modified form of removable front section 13. This section is the same as illustrated in Figs. 2 and 3; the only difference being that the face-piece 21, base portion 23, leg 24 and attaching arm 25 are provided with a suitable reinforcing 32, preferably in the form of a strip of relatively thin spring metal. The reinforcement need not be of a non-corrosive metal and can be embedded in the front section 13 during the extrusion thereof if it is made of extruded rubber or the like. However, the reinforced front section of Fig. 4 is installed in the same manner as that in Fig. 2 and functions in the same way to secure the pane of glass in place. The metal reinforcement 32 is simply provided to give additional strength to the front section if such additional strengthening is required.

It is to be understood that the form of the invention herewith shown and described is to be taken as the preferred embodiment of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. In a sash or store front construction, the combination of a stationary rear section and a removable front section adapted to receive and clamp a pane of glass therebetween, said rear section being provided with a portion engaging the rear surface of the pane of glass and a second portion disposed forwardly of the glass pane, said removable front section being formed of resilient, compressible material comprising a face-piece disposed forwardly of the second said portion of the rear section and having a portion at its inner end engaging the front surface of the pane of glass and another portion interengaging with the second said portion of the rear section, and means for securing the outer end of said removable face-piece in place at a point spaced forwardly of the second said portion of the rear section.

2. In a sash or store front construction, the combination of a stationary rear section and a removable front section adapted to receive and clamp a pane of glass therebetween, said rear section being provided with a bottom wall and spaced front and rear walls, said rear wall having a portion engaging the rear surface of the pane of glass and said front wall being provided with a rearwardly directed rib, said removable front section being formed of a resilient, compressible material comprising a face-piece disposed forwardly of the front wall of the rear section and having a lip at its inner end engaging the outer surface of the pane of glass and a tensioned attaching arm received in back of the front wall of said rear section and being provided with a bead interengaging with the rib on said front wall, and means for securing the outer end of the said removable face-piece in place at a point spaced forwardly of the front wall of the rear section.

3. In a sash or store front construction, the combination of a stationary rear section and a removable front section adapted to receive and clamp a pane of glass therebetween, said rear section being provided with a portion engaging the rear surface of the pane of glass and a second portion disposed forwardly of the glass pane, said removable front section being formed of resilient compressible material comprising a face piece disposed forwardly of the second said portion of the rear section and having a portion at its inner end engaging the front surface of the pane of glass, a rearwardly directed base portion at its outer end terminating in an outwardly directed attaching leg and another portion interengaging with the second said portion of said rear section, and means for securing said attaching leg in place.

4. In a sash or store front construction, the combination of a stationary rear section and a removable front section adapted to receive and clamp a pane of glass therebetween, said rear section being provided with a bottom wall and spaced front and rear walls, said rear wall having a portion engaging the rear surface of the pane of glass and said front wall being provided with a rearwardly directed rib, said removable front section being formed of a resilient compressible material comprising a face piece disposed forwardly of the front wall of the rear section and having a portion at its inner end engaging the front surface of the pane of glass, an attaching leg at its outer end and a tensioned attaching arm adjacent its inner end received in back of the front wall of said rear section and being pro-

vided with a bead interengaging with the rib on said front wall, and means for securing said attaching leg in place.

5. In a sash or store front construction, the combination of a stationary rear section and a removable front section adapted to receive and clamp a pane of glass therebetween, said rear section being provided with a bottom wall and spaced front and rear walls, said rear wall having a portion engaging the rear surface of the pane of glass and said front wall being provided with a rearwardly directed rib, said removable front section being formed of a resilient compressible material comprising a face piece disposed forwardly of the front wall of said rear section and provided at its outer end with a rearwardly directed base portion terminating in an outwardly directed attaching leg, at its inner end with a lip engaging the front surface of the pane of glass and a tensioned attaching arm adjacent its inner end received in back of the front wall of said rear section and being provided with a bead interengaging with the rib on said front wall, and means for securing said attaching leg in place.

6. A molding formed of a resilient compressible material for securing a pane of glass in a frame, comprising a face piece provided at its outer end with a base portion terminating in an attaching leg and at its inner end with an attaching arm normally disposed at an acute angle with respect to the face piece and adapted upon installation of the molding to be drawn away from said face piece and disposed at substantially right angles with respect thereto to place said attaching arm under tension.

7. A molding formed of a resilient compressible material for securing a pane of glass in a frame, comprising a face piece provided at its outer end with a rearwardly directed base portion terminating in an outwardly projecting leg, at its inner end with a glass engaging lip and adjacent its inner end with an attaching arm normally disposed at an acute angle with respect to the face piece and adapted upon installation of the molding to be drawn away from said face piece and disposed at substantially right angles with respect thereto to place said attaching arm under tension.

8. A molding formed of a resilient compressible material for securing a pane of glass in a frame, comprising a face piece provided at its outer end with an attaching leg and at its inner end with an attaching arm normally disposed at an acute angle with respect to the face piece and adapted upon installation of the molding to be drawn away from said face piece and disposed at substantially right angles with respect thereto to place said attaching arm under tension, and a strip of relatively thin spring metal embedded in said face piece, attaching leg, and attaching arm.

9. A molding formed of a resilient compressible material for securing a pane of glass in a frame, comprising a face piece provided at its outer end with a base portion terminating in an attaching leg and at its inner end with an attaching arm normally disposed at an acute angle with respect to the face piece and adapted upon installation of the molding to be drawn away from said face piece and disposed at substantially right angles with respect thereto to place said attaching arm under tension, and a strip of relatively thin spring metal embedded in said face piece, base portion, attaching leg, and attaching arm.

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