May 13, 1969 W. S. EGGERT, JR 3,443,346

WINDOW CONSTRUCTION

Filed Aug. 7, 1967 Sheet 1 of 2

FIG. 1

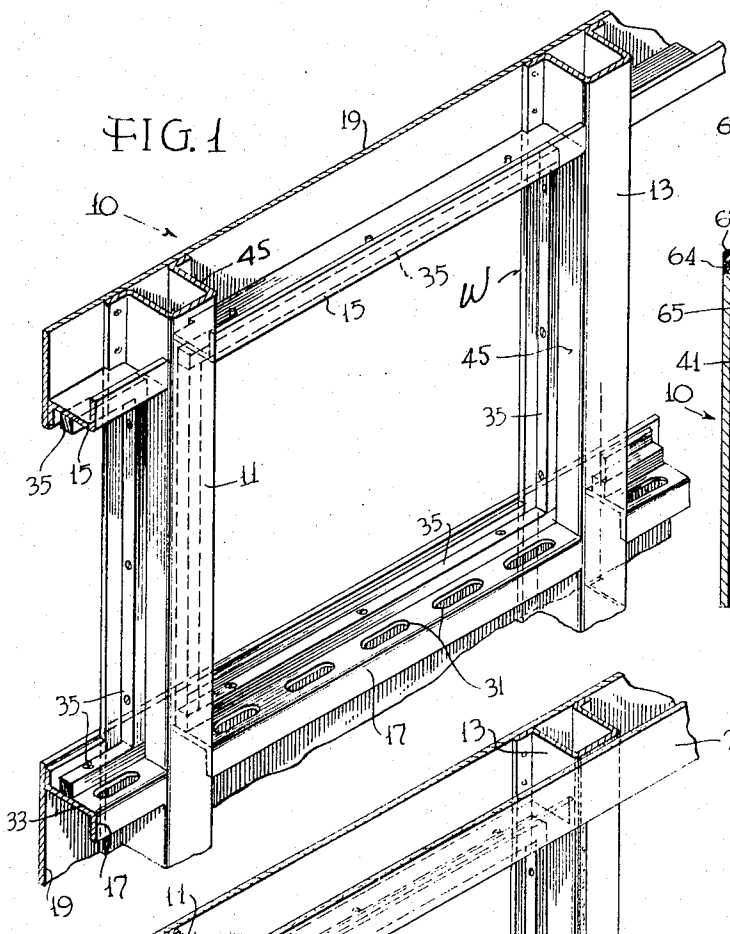


FIG. 7

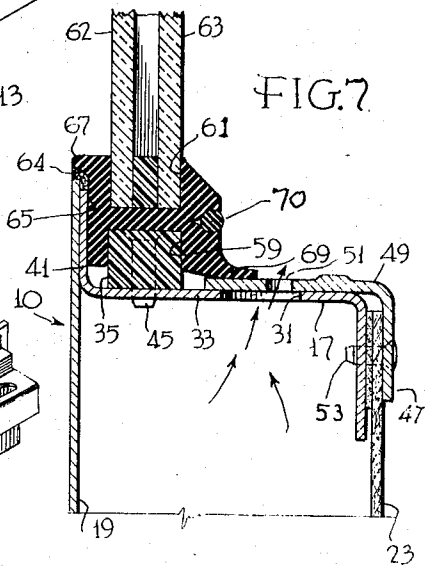
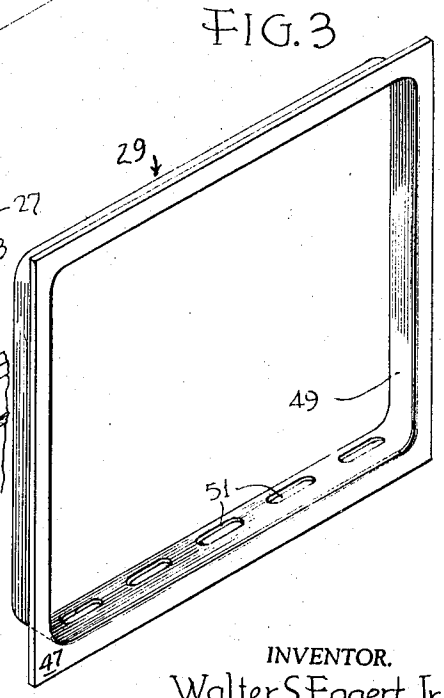


FIG. 3



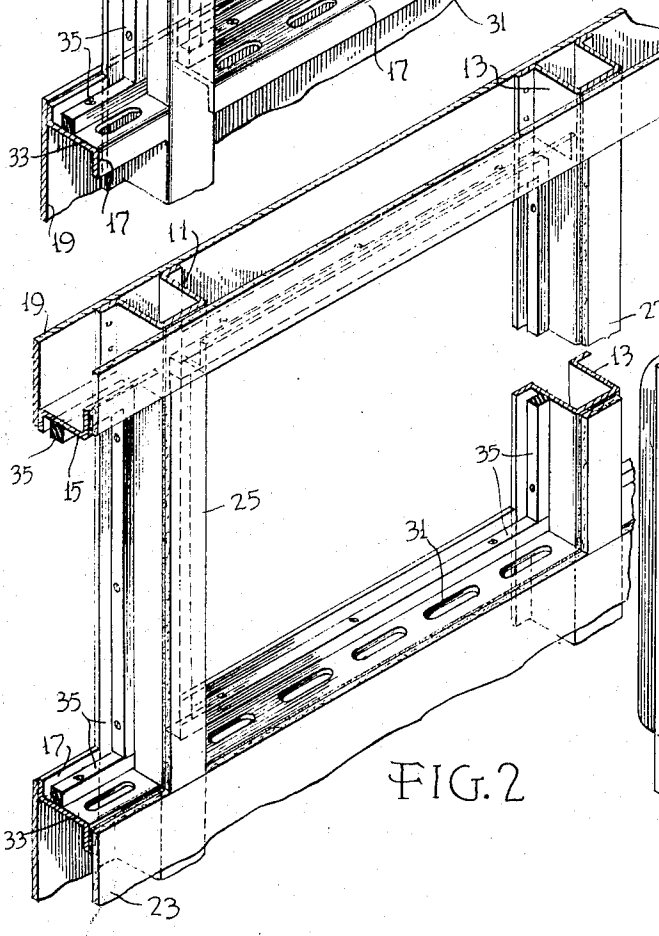


FIG. 2

INVENTOR.
Walter S. Eggert, Jr.

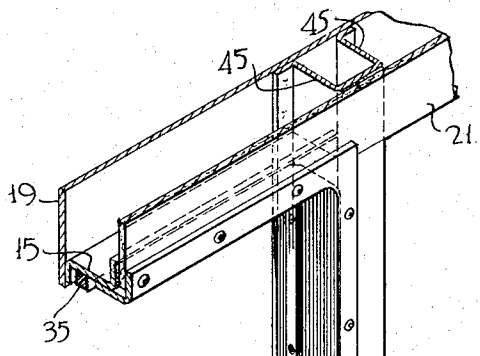
BY
William R. Nolte
AGENT

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WINDOW CONSTRUCTION

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FIG. 4



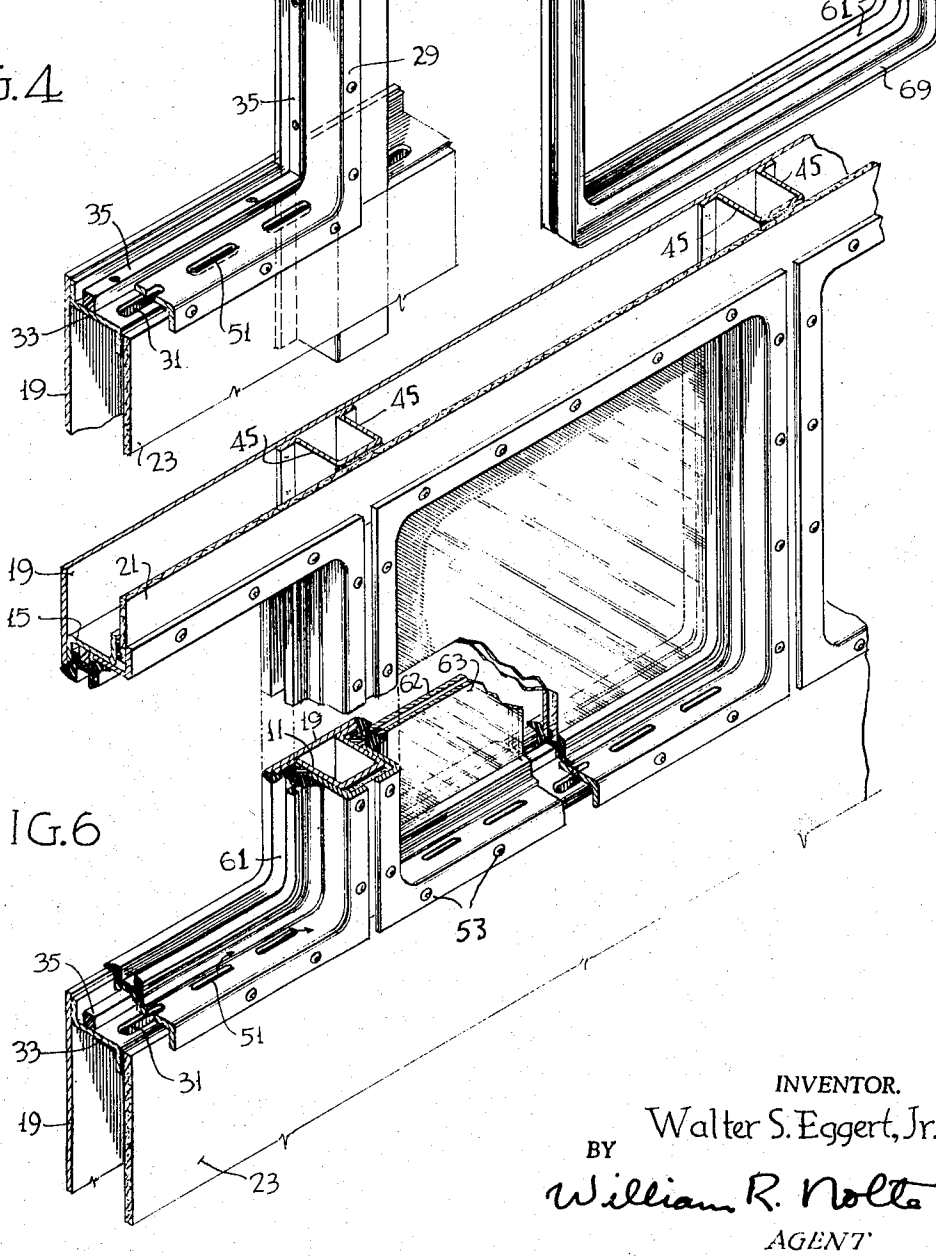


FIG. 5

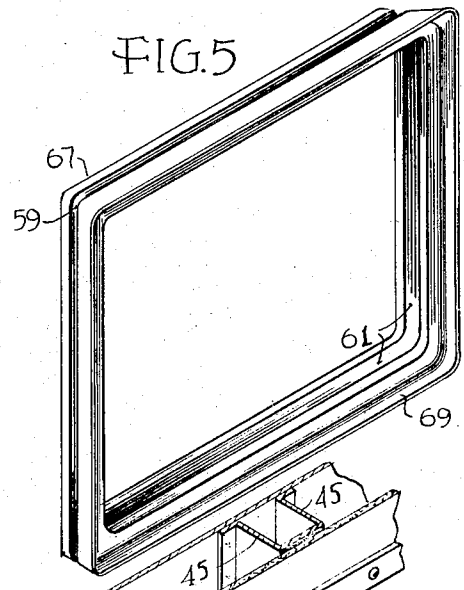


FIG. 6

INVENTOR.
Walter S. Eggert, Jr.
BY
William R. Nolte
AGENT

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WINDOW CONSTRUCTION

Walter S. Eggert, Jr., Huntingdon Valley, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

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Int. Cl. E06b 1/04; E04b 1/62
U.S. Cl. 52—214 1 Claim

ABSTRACT OF THE DISCLOSURE

A window construction for a railway passenger car wherein a sideframe having a window opening includes blocks fastened about the periphery of the opening. A rubber glazing strip having an outer groove is placed on and is carried by the blocks in coacting relationship with the peripheral margins of the sideframe window opening. The glazing strip includes an inner slot to receive a unit consisting of inner and outer windows locked in place by an inlay strip associated with the glazing strip.

Prior to this invention windows of railway passenger cars have normally been incorporated within a sash framework. The sash framework in turn has been fitted within a window sash opening formed within the primary sideframe structure of the cars. A disadvantage of such construction is the necessity for maintaining accurate dimensional tolerances not only of the sash framework per se but also of the primary structure of the sideframe defining the sash frame opening.

It is an object of this invention to provide an improved window construction which avoids one or more of the disadvantages of the prior art arrangements.

Another object of this invention is to provide a window construction which minimizes the dimensional tolerances required between complemental assembled members.

A further object of this invention is to provide an improved window construction which is designed to minimize or eliminate visible fastening means for improved appearance.

For a better object of the present invention together with other and further objects thereof, reference is had to the following description taken in connection with the accompanying drawing and its scope will be pointed out in the appended claims.

In the drawings FIG. 1 is a vertical elevational inside partial view of sideframe of a railway car, and illustrating the various framing members defining a window opening;

FIG. 2 is a vertical elevational view similar to FIG. 1 but including the addition of a plurality of block-like elements disposed about the margins of the window opening;

FIG. 3 is a vertical elevational view illustrating a decorative trim ring adapted to be received within the opening of the window framing shown in FIG. 2;

FIG. 4 is a partial vertical elevational view illustrating the trim ring of FIG. 3 positioned in place within the opening of FIG. 2;

FIG. 5 is a vertical elevational view illustrating a flexible glazing member adapted to be positioned on the projecting blocks to encircle the window opening of the frame structure shown in FIG. 4;

FIG. 6 is a vertical elevational view of the completed, installation, partially in section, and showing inner and outer windows retained in place; and

FIG. 7 is an enlarged cross-sectional view taken along the line 7—7 of FIG. 6.

Referring to the drawings, wherein like numerals indicate like parts unless otherwise specified, and particularly to FIGS. 1 and 7, a sideframe of a railway car is generally indicated at **10**. This sideframe constitutes the sidewall construction which extends between the floor and roof of a vehicle and includes a generally rectangular window opening W therein. The opening is bounded by a pair of spaced apart hat section posts **11**, **13** and upper and lower window Z-rails **15**, **17** extending transversely therebetween. An outer skin sheathing **19** is affixed to the outer surfaces of the posts and rails and upper and lower inside sheathing **21**, **23** to their inner surfaces. Upright filler strips **25**, **27** are suitably secured to the inside surfaces of the posts **11** and **13** so as to provide an even planar supporting surface for an interior trim member **29** shown in FIG. 3.

Still referring to FIGS. 1 and 2, it is seen that the lower horizontally disposed window rail **17** includes a plurality of elonagted openings **31** disposed parallel to the longitudinal axis of its horizontal flange **33**. These openings permit the upward flow of air passing between the inner and outer sheathing **23**, **19** respectively. Fastening means in the form of a plurality of elonagted block elements **35**, as seen in FIGS. 2 and 7, which may be of plastic or other lightweight structural material, are secured in upstanding relation on horizontal flanges **33** of rail **15**, **17** but spaced a slight distance laterally from vertically disposed flanges **40** and **41** of said rails. In addition, vertically disposed blocks **35** are also in a like manner, secured upon sidewall flanges **42**, of vertical posts **11** and **13** respectively. As seen in FIG. 7, block **35** is secured by means of a screw **45**, passing through a hole in the block and anchored to horizontal flange **33**. The remaining blocks disposed about the periphery of the window opening may be secured in a like manner.

Upon installation of the blocks **35** around the margin of the window opening W, as above indicated, the aforementioned decorative trim frame member **29** of FIG. 3 which is generally of rectangular form, is thereafter inserted in place as seen in FIG. 4. The trim frame is shown as including a vertical planar edge flange **47** which overlaps the upper and lower inner sheathing **21**, **23** and vertical strips **25**, **27**. The frame **29** also includes an interior ring-like flange portion **49** disposed at right angles to its edge portion **47**. The interior trim frame may be drawn in and secured, in place by screws **53** passed through vertical flange **49**. The lower horizontally disposed portion of flange **49** includes a plurality of apertures **51** which are aligned with the openings **31** in rail **17** to permit a flow of air therethrough. Thereafter a flexible glazing strip **57** shown in rectangular configuration, as best seen in FIG. 5, is inserted in place upon the spaced blocks **35**. The glazing strip **57** may be of rubber-like material. As seen in FIGS. 5 and 7, the glazing strip includes a longitudinal groove **59** extending about its outer periphery of a width to accommodate the blocks **35**. The latter blocks serve to press the outside face of the strip into tight engagement with the inner face of flanges of the rails **15**, **17**. The opposite inner peripheral surface includes a slot **61** to receive the window unit consisting of inner and outer windows **62**, **63** bonded in spaced relationship to one another. A suitable body sealing compound **64** may be applied between the outer face **65** of the strip and the flange **41** of the rail. In addition, the glazing strip may include a protuberant bead **67** which extends outwardly from the upper edge of face **65**. The side of the strip which lies opposite face **65** includes a downwardly inclined flange portion **69** which overlaps the top edge surface of flange **49** of trim frame **29**. The same side of the glazing strip as that containing flange **69** is grooved to receive a removable inlay strip **70** thereby permitting easy removal and insertion of the unit containing windows **62**, **63** in their respective slots.

From the foregoing it can be seen that the above-described structure facilitates the relationship of the interior trim of the vehicle by eliminating the necessity for rigid sash framing and by having the prime structure serve in lieu of the sash framing. The weight and cost of the sash elements are saved thereby serving to improve the sideframe structure.

What is claimed is:

1. A window construction for a wall unit having external sheathing and defining a window opening of a vehicle, comprising, fastening means secured about the peripheral margins of said window opening, flexible glazing strip means coacting in gripping relationship with said fastening means and coacting with said unit, window pane means received within said flexible glazing strip means, said fastening means including a plurality of block means disposed about the periphery of said window opening, said glazing strip being grooved to grip said block means, said flexible glazing strip including a bead-like protuberance overlaying said external sheathing, said wall unit including internal sheathing, apertured trim means overlaying said internal sheathing, and said glazing strip including flange means overlaying said trim means.

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FRANK L. ABBOTT, *Primary Examiner.*

P. C. FAW, JR., *Assistant Examiner.*

U.S. Cl. X.R.

52—400, 403, 716