Oct. 7, 1952 J. P. PEARSE 2,612,663

GLASS SETTING DEVICE

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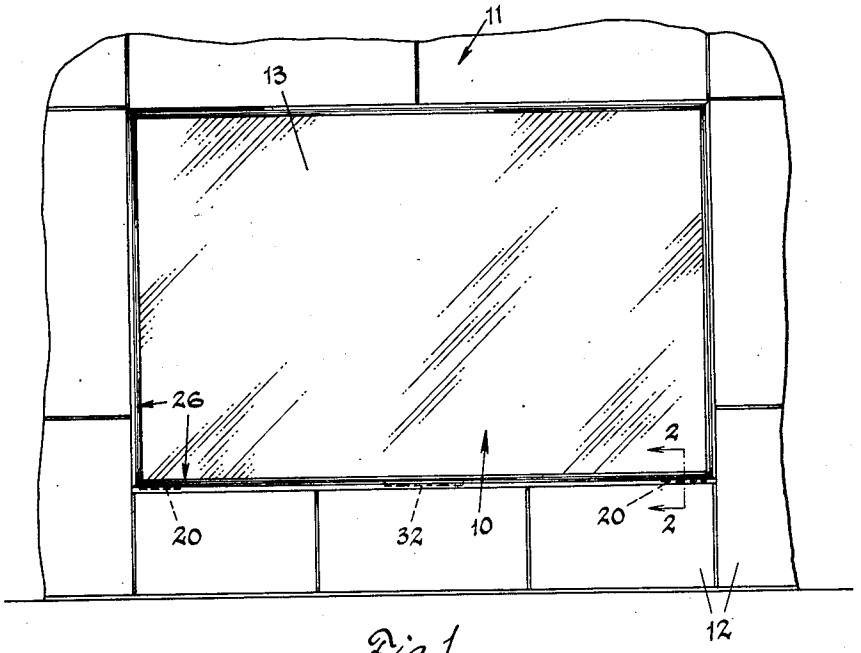


Fig. 1

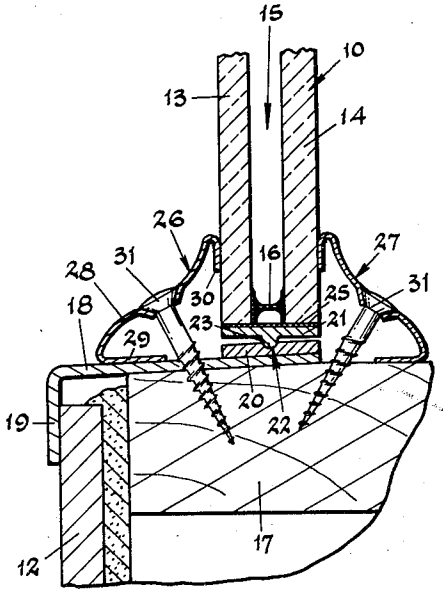


Fig. 2

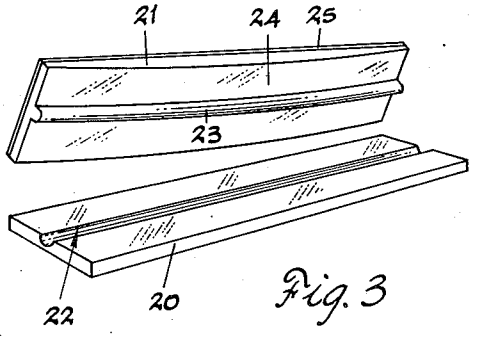


Fig. 3

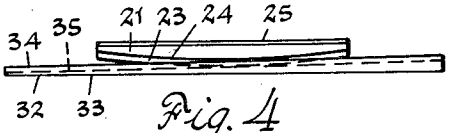


Fig. 4

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GLASS SETTING DEVICE

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4 Claims. (Cl. 20—56.5)

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The present invention relates broadly to the art of multiple glazing and more particularly to a novel and improved mounting for double glazing units.

One type of double glazing unit comprises two sheets of glass arranged in spaced parallel relation and secured together around the edges thereof by suitable separator means to provide a hermetically sealed insulating space between the glass sheets. A unit of this general type, developed by the assignee company, is manufactured and sold under the trade name "Thermopane." In this unit the glass sheets are secured in properly spaced relationship by metallic separator means soldered to metallic coatings on the glass sheets.

When mounting these units, and particularly large sized units such as are required for store fronts and the like, it is essential that the sill or other supporting means on which the bottom edge of the unit rests be perfectly level both longitudinally and transversely, since if this condition is not present the load of the unit will not be uniformly distributed, as a consequence of which one of the glass sheets will bear a greater portion of the weight of the unit than the other. This will result in the setting up of strains or stresses within the unit tending to break the glass or the seal between the glass sheets and permit air, dirt, and moisture to find its way between the said sheets, destroying the effectiveness and appearance of the unit.

It is the aim of this invention to provide an improved mounting for double glazing units which will automatically compensate for any unevenness in the sill or other supporting means, either transversely or longitudinally thereof, so that the weight of the unit will be evenly and uniformly distributed throughout, thereby reducing or eliminating the setting up of strains and stresses in the unit which tend to rupture the seal or cause breakage of the glass.

Another object of the invention is the provision of mounting means of the above character embodying one or more two-piece setting blocks upon which the unit is supported and which are automatically adjustable to provide a level supporting surface for the said unit.

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 drawings.

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

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

Fig. 2 is a vertical transverse section therethrough taken substantially on line 2—2 of Fig. 1;

Fig. 3 is a perspective view of one of the two-piece setting blocks; and

Fig. 4 is a side elevation of a modified type of setting block.

In Fig. 1 of the drawings, the numeral 10 designates a double glazing unit mounted within an opening in the wall 11 of a store or building which may be faced with stone, Vitrolite, or other ornamental slabs or panels 12.

The double glazing unit 10 comprises the two sheets or plates of glass 13 and 14 spaced from one another to provide an insulating space 15 therebetween. Arranged between the glass sheets and soldered thereto around the marginal portions thereof is a metallic separator strip 16. Although there has been illustrated, by way of example, a type of double glazing unit manufactured and sold by the assignee company under the trade name "Thermopane" (more particularly disclosed and claimed in Patent No. 2,235,680, dated March 18, 1941), it is to be understood that the invention may be used in the mounting of other types of double glazing units; also that it is adapted to the mounting of units comprising three or more sheets of glass.

As shown in Fig. 2, the supporting means for the double glazing unit 10 comprises a wooden sill 17 upon which rests a metal sill plate 18 suitably secured thereto and provided along its outer edge with a down-turned flange 19 overlapping the upper marginal portions of the adjacent facing panels 12. As will be noted, the upper surface of the wooden sill 17 and metal sill plate 18 slant forwardly and downwardly to facilitate drainage of water or moisture away from the unit and the supporting means therefor. It will be evident that should the double glazing unit 10 be set vertically on edge upon the inclined metal sill plate, all of the weight of the unit would be borne by the glass sheet 14 which would present a very unsatisfactory condition.

To overcome this, the instant invention contemplates the use of one or more novel two-piece setting blocks shown in Fig. 3 for supporting the double glazing unit. Each setting block includes a bottom part or member 20 and a top part or member 21. The bottom member 20 is rectangular and preferably of uniform thickness, being provided in its upper surface, intermediate the side edges thereof, with a longitudinally extending groove 22. The top member 21 is ordinarily

of the same length and width as the bottom member 20 and is provided intermediate its side edges with a longitudinally extending tongue 23 adapted to be received within the groove 22, said tongue being somewhat thicker than the depth of the groove 22 so that when the top member is placed upon the bottom member, they are spaced slightly from one another at opposite sides of said tongue as in Fig. 2, to permit the top member to rock transversely upon said bottom member. Thus, when the double glazing unit 10 is rested upon the top member 21 in a vertical position, the said top member will automatically adjust itself transversely so that the upper surface thereof will engage the lower edges of both of the glass sheets.

The sill 17 may also not always be perfectly level longitudinally of the window opening, and in order to compensate therefor, the bottom surface 24 of the top member 21 is longitudinally curved so that the block is thickest at its longitudinal center and becomes progressively thinner towards its opposite ends. Because of this, the block cannot only rock transversely upon the tongue 23 but likewise longitudinally to automatically adjust itself to any variations in the sill or sill plate. By this means, the weight of the unit will be uniformely distributed over both of the glass sheets, thereby reducing to a minimum the setting up of strains in the unit tending to rupture the seal or break the glass sheets.

It is preferred that the upper surface of the top member 21 of the setting block be covered with a layer of material 25 which may consist of a strip of lead, leather, or other like material. The groove 22 and tongue 23 may be suitably roughened, by sandblasting or the like, to minimize or prevent slippage between the top and bottom members.

The double glazing unit 10 may be mounted in the window opening by any suitable type of metal sash construction. As shown, by way of example, it is secured in place by the two metal sash sections 26 and 27 arranged at opposite sides of the unit and secured to the wooden sill. Each sash section comprises a metal strip 28 provided along one edge with an inturned flange 29 resting upon the sill or sill plate and along its opposite edge with an inturned flange 30 bearing against the adjacent glass sheet. The sash sections are secured to the wooden sill by screws 31 which force the flanges 29 upon the sill or sill plate and the flanges 30 against opposite sides of the double glazing unit.

In Fig. 4 is illustrated a somewhat different type of setting block which is particularly adapted for levelling a glazing unit where irregularities in the supporting structure will not be taken up by the setting block shown in Fig. 3 or where the glazing unit is of sufficient length as to require the use of three or more setting blocks as in Fig. 1. This block embodies a modified base or bottom member 32 having a flat bottom surface 33 and an inclined upper surface 34 which results in a wedge-shaped member. Provided in the upper inclined surface 34 is a longitudinally extending groove 35 for receiving the tongue 23 of the top member 21 which is of the same type as shown in Fig. 3. The bottom member 32 is somewhat longer than the top member so that the top member may be moved along the inclined upper surface of the bottom member until the desired position with relation to the glazing unit has been obtained. Thus, with this type of setting block, the top member can be raised or lowered to compensate for any irregularity in the supporting structure and thereby bring the upper surface of the top member into the same plane as the top members of the setting blocks supporting the opposite ends of the unit.

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.

What I claim is:

1. In a mounting for multiple glass sheet glazing units, a setting block comprising a bottom member and a top member carried upon said bottom member and adapted to support the glazing unit on edge in a vertical position, the upper surface of said bottom member having a longitudinally extending groove therein while the lower surface of said top member has a longitudinally extending tongue loosely received within said groove for rocking movement transversely thereof, said tongue being longitudinally convex to also provide for longitudinal rocking of the top member with respect to the bottom member.

2. In a mounting for multiple glass sheet glazing units, a setting block comprising a bottom member and a top member carried upon said bottom member and adapted to support the glazing unit on edge in a vertical position, the upper surface of said bottom member having a longitudinally extending groove therein while the lower surface of said top member has a longitudinally extending tongue rockably received within said face of said top member has a longitudinally extending tongue rockably received within said groove whereby said upper member is rockable transversely with respect to said bottom member, the bottom surface of said upper member being curved longitudinally so that it is thickest at its center with gradually diminishing thickness towards its opposite ends.

3. In a mounting for multiple glass sheet glazing units, a setting block comprising a bottom member and a top member carried upon said bottom member and adapted to support the glazing unit on edge in a vertical position, the upper surface of said bottom member having a longitudinally extending groove therein while the lower surface of said top member has a longitudinally extending tongue loosely received within said groove for rocking movement transversely thereof, said tongue being longitudinally convex to also provide for longitudinal rocking of the top member with respect to the bottom member, the bottom member being relatively longer than the top member and having an inclined upper surface along which said top member may be moved to bodily raise or lower the same, the longitudinally extending groove in said bottom member being parallel to the inclined upper surface thereof.

4. In a mounting for multiple glass sheet glazing units, a setting block comprising a bottom member and a top member carried upon said bottom member and adapted to support the glazing unit on edge in a vertical position, the upper surface of said bottom member having a longitudinally extending groove substantially intermediate the side edges thereof while the lower surface of said top member has a longitudinally extending tongue rockably received within said groove, the bottom surface of said upper member being curved longitudinally so that it is thickest at its center with gradually diminishing thickness towards its opposite ends, the bottom member being rela-

tively longer than the top member and having an inclined upper surface along which said top member may be moved to bodily raise or lower the same, the longitudinally extending groove in said bottom member being parallel to the inclined upper surface thereof.

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The following references are of record in the file of this patent:

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Number	Name	Date
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