

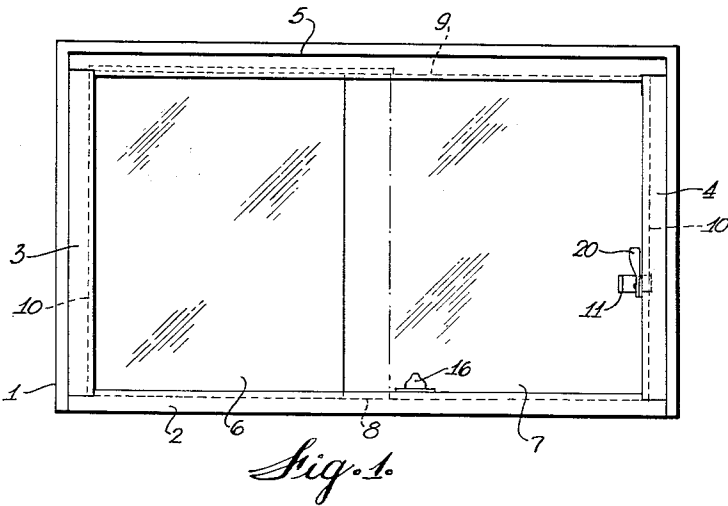
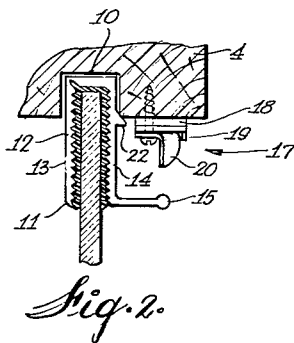
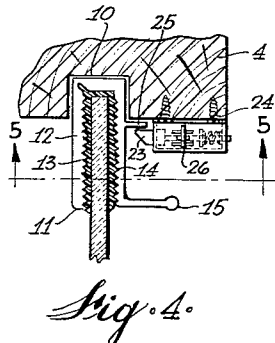
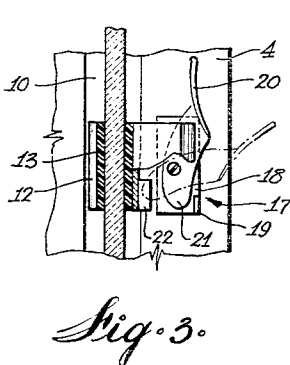
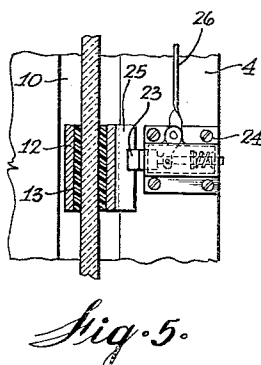
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PULL AND LOCK FOR SASHLESS WINDOW PANELS

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PULL AND LOCK FOR SASHLESS WINDOW PANELS

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Original application June 16, 1958, Ser. No. 742,294, now Patent No. 2,949,647, dated Aug. 23, 1960. Divided and this application June 26, 1959, Ser. No. 823,186
1 Claim. (Cl. 20—52)

This invention relates to pull and lock means for window structures of the sashless type. This application is a division of application, Serial No. 742,294, filed June 16, 1958, now Patent No. 2,949,647, issued August 23, 1960.

In sashless windows, the provision of a pull and lock means, for the glass panels thereof presents manufacturing and operating difficulties. Since there is no sash, application of the pull to the panel is frequently accomplished by drilling a hole through the panel. Drilling of the hole and subsequent mounting of the pull is not only time-consuming but frequently results in damage to the panel. A locking device is usually associated with the pull but ordinarily is not of the dead or positive type because it is difficult and expensive to associate dead lock means with the pull.

It is an object of this invention to provide a pull for sashless window panels with associated dead lock means which is simple and inexpensive to manufacture, which may be installed in a rapid and convenient manner, and which is effective and positive in use.

The invention will be described with reference to the accompanying drawing, in which

FIGURE 1 is a side elevation of a sashless window structure embodying the invention,

FIGURE 2 is a plan view of the pull and lock in association with the window structure,

FIGURE 3 is a side elevation of the pull and lock,

FIGURE 4 is a plan view of a modified form of pull and lock, and

FIGURE 5 is a section on line 5—5 of FIGURE 4.

In the drawing, the window assembly illustrated comprises a wood frame 1 having sill 2, jambs 3 and 4, and head piece 5. A pair of sashless glass panels 6 and 7 are slidably mounted in the frame in groove 8 in the sill and groove 9 in the head piece. Grooves 10 in the jambs receive the outer edge portions of the panels. In the closed position of the panels, as shown in FIGURE 1, the meeting inner edge portions of the panels overlap in conventional manner.

In ordinary use, panel 6 remains in substantially fixed position in the frame while sliding movement of panel 7 with respect to the frame and panel 6 is effected to open and close the window. To facilitate such sliding movement, a pull 11 is provided on panel 7. Pull 11 comprises a U-shaped strip 12, preferably of metal, plastic composition or the like arranged to clampingly embrace an outer edge portion of panel 7. In order to bond the strip 12 to the glass surface, there is preferably snugly interposed between the strip 12 and glass surface a layer 13 of material having a high coefficient of friction with respect to the metal of strip 12. A suitable material would be a plastic composition such as polyethylene, and natural or synthetic rubber. The inner surfaces of strip

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12 may be serrated as indicated at 14 to increase the bonding action. Strip 12 has an angularly projecting end portion 15 constituting a manually engageable handle.

Means for clamping the panels 6 and 7 in closed or partially open position may be provided and is generally indicated as a device 16 mounted on the sill.

Means for positively or dead locking the panels 6 and 7 in closed position is associated with the pull 11.

Such dead locking means, in the form shown in FIGURES 1, 2 and 3, comprises a latch 17 pivotally mounted on jamb 4 by means of a bracket 18 which has a stop 19 defining the open position of the latch. The latch is mounted in laterally opposite relation to the pull member 12 and has a handle 20 and end portion 21 for engagement with a shoulder 22 on member 12. While the shoulder 22 is shown as projecting from the body of member 12, it will be understood that it may, if desired, be recessed within the body of member 12.

Referring to FIGURES 4 and 5, alternative means for locking panel 7 in closed position comprises a spring-loaded latch 23 mounted in bracket 24 secured to jamb 4. Latch 23 is engageable by a shoulder 25 on member 12. A lever 26 pivotally mounted in bracket 24 is connected to latch 23 for manual release of the same.

We claim:

In a sashless window structure having a sill, head piece, and jambs constituting a frame and each having a glass panel receiving groove therein, and a glass panel slidably mounted in said frame and having a bottom edge portion seated in said sill groove, a top edge portion disposed within said head piece groove, and a side edge portion disposed adjacent one of said jambs and positioned in the groove thereof in the closed position of said panel, a lock device for said panel comprising a unitary U-shaped member having legs embracing said side edge portion of said panel, and a leg-connecting portion receivable in said groove of said one jamb, and a layer of bonding material snugly engaging the opposing surfaces of said legs and panel to secure said U-shaped member to said panel, one of said legs having an integral shoulder thereon lying intermediate the ends of said leg, said shoulder being spaced from said leg-connecting portion a distance not substantially less than the depth of said jamb groove to permit unobstructed reception in said jamb groove of said leg-connecting portion and the adjoining portions of said legs, said shoulder having a plane terminal face defining the maximum extent of spacing of said shoulder from said leg-connecting portion and in parallel relation thereto and constituting a latch-engageable surface.

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