Sept. 26, 1950 A. P. COUTURE 2,523,559

WINDOW LOCK

Filed May 25, 1946 2 Sheets-Sheet 1

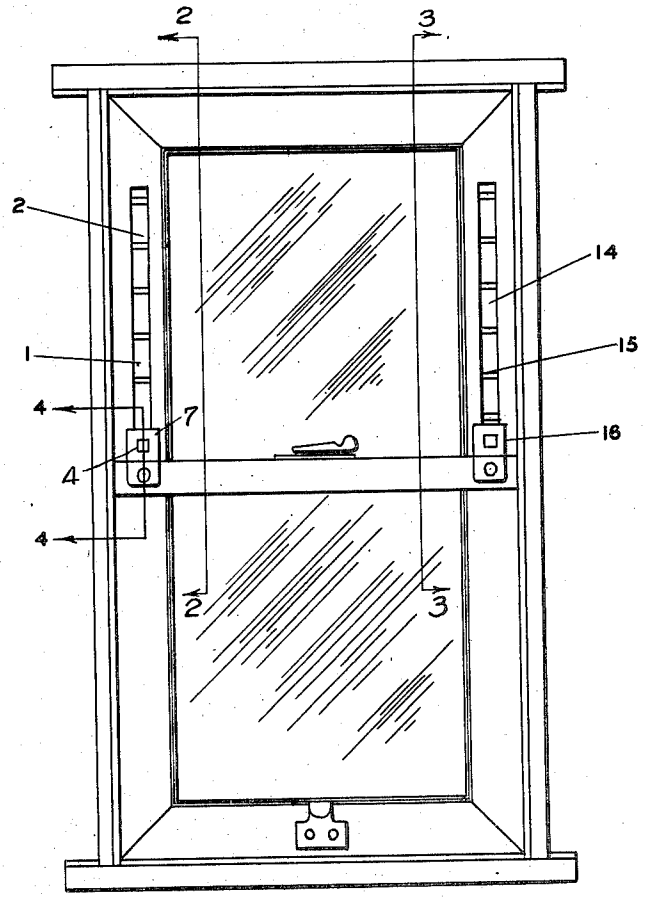


FIG. 1

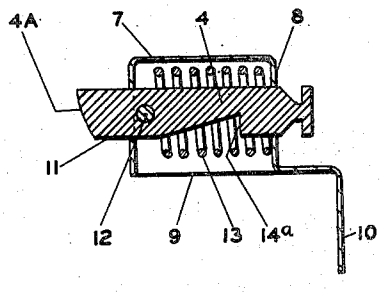


FIG. 4
(LOCKED)

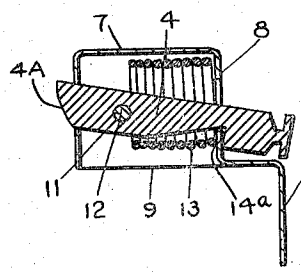


FIG. 4a
(UNLOCKED)

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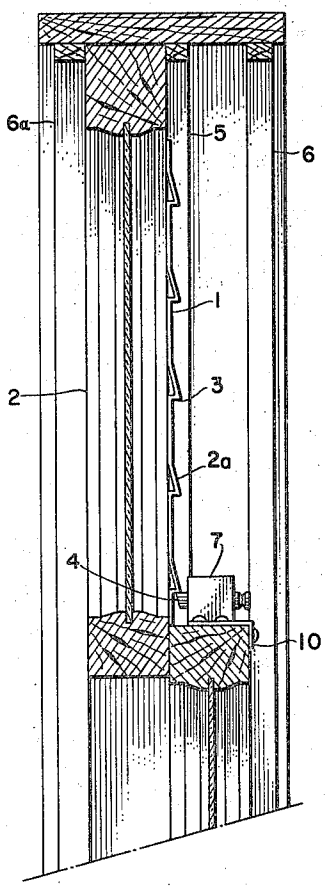


FIG. 2

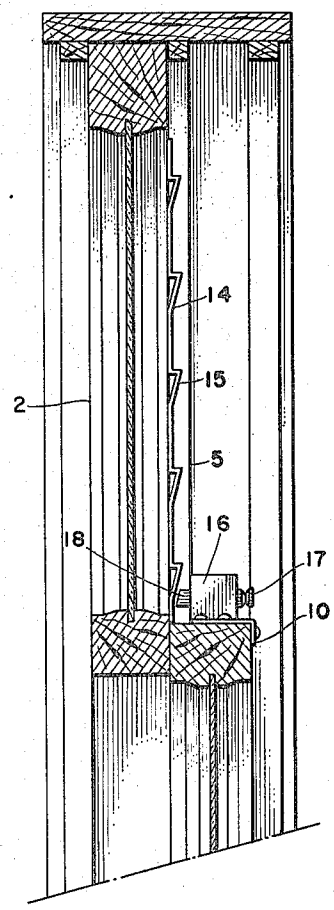


FIG. 3

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WINDOW LOCK

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Application May 25, 1946, Serial No. 672,233

5 Claims. (Cl. 292—67)

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This invention relates to window sash locks, the object being to provide a new and improved arrangement of parts whereby an upper and a lower vertically slidable sash may be held from a material relative movement in any of the adjusted positions thereof, the arrangement further providing that the sash may be freely adjusted in position from the interior of a room.

These and other features and objects of the invention are hereinafter more fully described and claimed and a sash lock mechanism embodying my invention is shown in the accompanying drawings in which:

Fig. 1 is an elevation showing the inner face of the sash and my locking mechanism associated therewith.

Fig. 2 is a vertical section taken on line 2—2 of Fig. 1.

Fig. 3 is a section taken on line 3—3 of Fig. 1.

Fig. 4 is an enlarged vertical section taken on line 4—4 of Fig. 1 in the locked position.

Fig. 4a is an enlarged vertical section taken on line 4—4 of Fig. 1 in the unlocked position.

The sash locking mechanism according to my invention involves a strip 1 preferably attached to the vertical rail 2 of the upper sash. The said strip 1 is shaped to provide a series of vertically spaced struck-out portions 2a each forming an abutment 3, as shown in Fig. 2, beneath which a spring pressed latch bolt 4 may engage as will be understood from Fig. 1, and thereby prevent material movement of one sash relative to the other. By retracting the bolt the sash may be varied in relative position to provide an opening between the cross members of the sash and the frame which is provided with a parting strip 5 and outer strips 6, 6a parallel with the strip 5 provide a runway for the respective sash. The lock element 7, as shown more clearly in Fig. 4, consists of an outer casing 8 open at its bottom edge 9 and formed with a depending flange 10 by means of which the latch element may be secured to the sash as will be understood more clearly from Figs. 1 and 2.

The latch member 11 is movable in apertures provided therefor in each of the opposite end walls of the casing 7 and is here shown as having a transverse pin 12 extending to opposite sides of the casing providing an abutment for one end of the spring 13, the opposite end of which engages an end wall 8 of the casing. The spring normally tends to project the latch bolt 4 outwardly of the casing and the bolt is provided with a notch 14a that, upon retracting the latch element, the shoulder of notch 14a may

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engage over the outer face of the end wall of the casing 8 at the aperture therein as indicated in Fig. 4a. On the opposite side rail of the upper sash is a strip 14 having struck out portions 15 thereon in vertically spaced relation providing a series of vertically spaced abutments. Associated with the strip 14 is another latch element 16 similar in general respects to the latch element 7 shown in Fig. 2 except that the bolt 17 has an end surface 18 at an angle opposite that at the end 4A of the bolt 4 of the latch element 7 as shown in Fig. 2. Thus in Fig. 3 the releasable latch element 16 normally prevents downward movement of the lower sash relative to the upper sash.

By the described arrangement of parts the upper sash may not be moved downwardly except by retraction of the bolt 17 of the lock element 16 mounted on the upper surface of the upper rail of the lower sash. Likewise the lower sash may not be moved upwardly from the position shown in Fig. 2 due to the latch bolt 4 engaging the abutments 3. Thus the two sash are normally locked in relative position except to a slight degree when both latch elements 4 and 17 are between the abutments on the respective strips 1 and 14. When both latch elements are retracted both sash may be freely moved relative one to the other.

It is further pointed out that the stop elements on the strip 1 need not be horizontally aligned on the strip elements 14 and thus a finer adjustment of movement of the sash elements may be obtained and in either case the sash elements are locked in their relative positions.

It is believed evident from the foregoing description and the drawing that my improved means for locking the sash in the desired relationship is provided for and it is further pointed out that while I have shown the sash elements as being movable in a vertical line they may be positioned for movement in a horizontal plane.

Having thus briefly described my invention, its utility and mode of operation, what I claim and desire to secure by Letters Patent of the United States is:

1. A lock mechanism for use in conjunction with a pair of vertically slidable sash, each having a pair of side rails and a pair of end rails, comprising a strip of suitable material on each side rail of one of the sash, each strip having struck out portions in longitudinally spaced relation providing abutments, the abutments on each of the strips having inclined faces and the inclined faces of the abutments on one strip ex-

tend in a direction opposite that of the inclined faces of the other strip, a pair of latch elements and housing therefor on the cross rail of the other sash and engageable with the respective strips on said other sash, the latch element for one strip having an inclined end engaging the surface thereof and the latch element for the other strip having an oppositely inclined end contacting the other strip substantially as and for the purpose described.

2. A lock mechanism for use in conjunction with a pair of relatively slidable sash each having a pair of side walls and end walls, said lock mechanism comprising a strip of suitable material extending longitudinally of each side wall of one of the sash, each of the strips having abutments and an inclined portion, the inclined portion of one strip being inclined oppositely to that of the other strip, spring pressed retractable latch elements on the cross rail of the other sash, each of said latch elements including a bolt having an inclined end portion, the end portion of the bolt of one latch being oppositely inclined relative to the end portion of the other whereby upon retraction of one bolt the sash may be freely moved in one direction and the other bolt prevents movement in the opposite direction.

3. A lock mechanism for use in conjunction with a pair of relatively slidable sash each having a pair of side walls and end walls, said lock mechanism comprising a strip of suitable material extending longitudinally of each side wall of one of the sash, each of the strips having abutments and an inclined portion, the portion on one strip being inclined oppositely to that of the other strip, spring pressed retractable latch elements on the cross rail of the lower sash, each of said latch elements including a bolt having an inclined end portion, the end portion of the bolt of one latch being oppositely inclined relative to the end portion of the other whereby upon retraction of one bolt the sash may be freely moved in one direction and the other bolt prevents movement in the opposite direction, and means associated with each bolt for holding the same in retracted position.

4. A lock mechanism for use in conjunction with a pair of relatively slidable sash each having a pair of side rails and a pair of end rails, comprising a strip of suitable material on each side rail of one of the sash, each strip having a series of spaced abutments, the abutments on one strip having an inclined face opposite the inclined face of the other strip, a releasable latch element on each end of the cross rail of the other sash engageable with the respective strip on the first sash, the arrangement providing that the release of one of said latch elements permits movement of one of the sash in one direction and the other latch element prevents reverse movement of the sash.

5. A lock mechanism for use in conjunction with a pair of relatively slidable sash each having a pair of side rails and a pair of end rails, comprising a strip of suitable material on each side rail of one of the sash, each strip having a struck out portion in longitudinally spaced relation providing abutments, the abutments of one strip being horizontally misaligned relative to the abutments on the other strip, a pair of spring pressed latch elements on the upper rail of the lower sash, the end of the bolt of one latch element being oppositely inclined relative to the end of the bolt of the other latch element.

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

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