G. F. KELLY & P. E. JOHNSON.

WINDOW LOCK.

APPLICATION FILED JULY 18, 1917.

1,279,353. Patented Sept. 17, 1918.

Fig. 1.

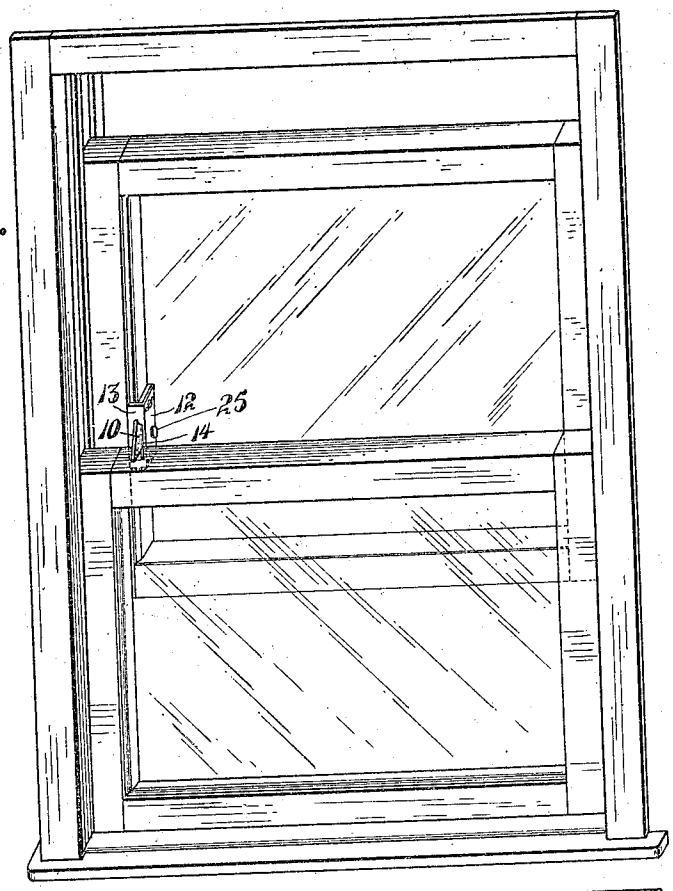


Fig. 3.

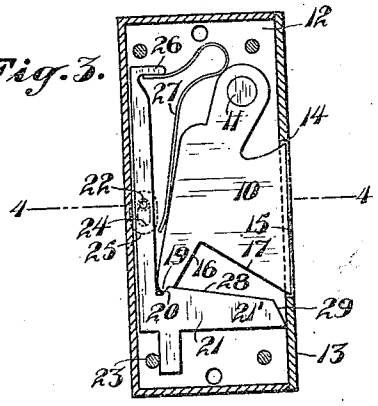


Fig. 2.

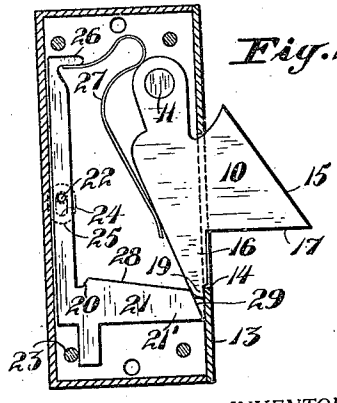
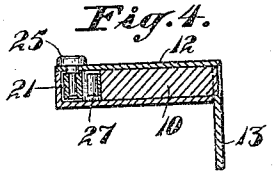


Fig. 4.



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WINDOW-LOCK.

1,279,353. Specification of Letters Patent. Patented Sept. 17, 1918.

Application filed July 18, 1917. Serial No. 181,262.

To all whom it may concern:

Be it known that we, GEORGE F. KELLY and PETER E. JOHNSON, citizens of the United States, residing at the city and county of San Francisco and State of California, have invented new and useful Improvements in Window-Locks, of which the following is a specification.

This invention relates to improvements in sash latches for windows, and has for its object to provide a simple, compact, and cheaply manufactured lock which can be fitted to the stiles of either single or double hung sliding sashes to lock the upper or lower portion, or both, in such a position that the window will be left partly open. Another object is to provide a latch of the character described which, because of its construction, will be practically safe against retraction from the outside, as will be more fully explained later.

These and further objects are attained by mechanism, such as that shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a latch fitted to the left-hand stile of the upper portion of a double hung sliding sash.

Fig. 2 is an elevation of that side of the latch which fits next to the stile, the covering for the mechanism being removed to show the latch bolt and actuating mechanism in extended position.

Fig. 3 is a similar view, showing the latch bolt and actuating mechanism in retracted position.

Fig. 4 is a cross section on line 4—4 of Fig. 3.

Referring to the drawings in detail, it will be seen that the lock consists principally of a latch bolt 10, pivotally mounted at 11 on the plate 12. One edge of the plate 12 may be bent at right angles to form the side plate 13, which serves both as a means to fit the lock to the stile of the sash and as a side for the casing of the lock (see Fig. 1).

In the plate 13 is a slot 14, through which the latch bolt 10 may be extended or retracted, the dimension of the slot being such that the face 15 of the bolt 10 may fit in said slot flush with the outer surface of the plate 13.

Formed on the lower side of the bolt 10 is a projection 16. A second projection 19 is formed on the projection 16 for the purpose, among others, of providing a stop to engage the lower side of slot 14, as shown in Fig. 2, to hold the operative face 17 of bolt 10 approximately at right angles to plate 13, by preventing further rotation of bolt 10 about pivot 11.

Coöperating with the bolt 10 is a catch member 21, slidably mounted on plate 12 by means of pins 22 and 23. The catch 21 is also fitted with a projection 21′ which slidably engages the inner side of plate 13 and serves to confine the catch 21 to vertical reciprocation. The pin 22 is in fixed engagement with catch 21 and projects through a slot 24 in plate 12 to provide exterior means for actuating the catch 21. A suitable head or knob may be fitted to the outer end of pin 22, as shown at 25. The interior side of projection 21′ is provided with a face 28, over which projection 19 slides before engaging the notch 20 for purposes which will be explained presently. The upper end of catch 21 is fitted with a suitable hook or projection 26 to receive the end of a spring 27 which is operatively connected to bolt 10, said spring serving to exert an upward force on catch 21 when bolt 10 is retracted, and also serving to project bolt 10.

In operation, the lock is normally in the position shown in Fig. 3, the bolt 10 being held in retracted position by reason of the engagement of projection 19 in notch 20 of catch 21, which is held up into engagement with bolt 10 by means of spring 27. In this position the lock is inoperative and inconspicuous, permitting unrestricted opening or closing of the window.

To lock the window it is only necessary to press downwardly on knob 25. This will slide catch 21 downwardly until notch 20 disengages the projection 19. At this point the outward pressure of spring 27 on bolt 10 will project said bolt toward the interior of the room through slot 14 and hold it there, the projection 19 serving to prevent extension beyond a point at which face 17 will be approximately at right angles to plate 13, or, in other words, parallel to the upper side of the sash bar which it engages, as shown in Fig. 1. In this position it will readily be seen that the catch will securely prevent opening of the window to any greater extent than that permitted by the point at which the lock has been placed on the stile of the sash. It will also be clear that because of the position of the lock on the stile and the direction in which the catch is projected, it would be impossible to bore

a hole through the stile and retract the bolt in the manner usually employed where the lock consists merely of a straight bolt spring pressed outwardly.

To unlock the window, the catch 21 is depressed and the bolt is pressed inwardly. This movement compresses the spring 27 and causes it to exert an upward force on the catch 21, which brings the face 28 of the projection 21′ into contact with projection 19. This engagement of the projection 19 with the face 28 serves to prevent the spring from moving the notch 20 too far before projection 19 may engage therewith. When bolt 10 is pressed into the position shown in Fig. 3 the projection 19 engages the notch 20 and the lock is again in the position first described.

The construction of the lock also makes it impossible to retract the catch by pressing on face 15, because, as shown in Fig. 2, the face 29 of projection 21′ is held up against the back of the projection 19. This prevents retraction of the catch until the knob 25 is slightly depressed to lower projection 21′ and permit projection 19 to move over face 28. Therefore, the lock cannot be operated surreptitiously by one on the outside of the window.

While there is shown herein but one form of device, it will be noted, nevertheless, that the same is susceptible of modification and, therefore, many changes in the construction and arrangement of the several parts may be made without departing from the spirit of our invention as set forth in the appended claims.

Having thus described our invention, what we claim and desire to secure by Letters Patent is—

1. In combination with a double hung sliding window, a spring-pressed locking member carried on the vertical rail of the upper sash and projectable into engagement with the top rail of the lower sash, whereby to prevent movement of the two sashes, and retractable to clear said lower cash, and a device for latching the said locking member in retracted position, consisting of an L-shaped, spring-pressed, vertically slidable catch member having a notch at the inner angle and an engaging projection at the inner end of the first named member.

2. The combination in a window lock, of a casing, a latch bolt vertically pivoted in said casing, an L-shaped catch member slidably mounted in said casing and engageable with said latch bolt, and a spring mounted between said catch member and said latch bolt to move the catch member into operative engagement with the latch bolt in both extended and retracted position.

3. The combination in a window lock of the character described, of a casing inclosing two contiguous sides of the upper sash and having a vertical slot through its inner side, a swinging latch bolt having a pivot extension at the upper end and a body adapted to swing in and out through the slot and a stop extension at the lower end, a catch member, the shank of which is vertically slidable within the case and the horizontal part of which has a notch at the inner angle, and an inclined toe with which the extension at the bottom of the bolt engages to retain said bolt in either extended or retracted position.

4. In a window lock of the character described, a casing, a latch bolt, the body of which may be projected or retracted through the side of the casing, a pivot extension at the upper end of the latch bolt and a catch extension at the lower end, an L-shaped, vertically slidable catch member, the horizontal portion of which is notched and inclined in the path of the catch extension of the latch bolt, and a spring, one end of which engages the back of the latch bolt and the other end engages the upper end of the catch member, whereby the retraction of the latch bolt compresses the spring and raises the catch member and engages the notch with the catch extension of the latch bolt.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

GEORGE F. KELLY.
PETER E. JOHNSON.

Witnesses:
JOHN JACKSON,
JOE CORBETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."