No. 812,050. PATENTED FEB. 6, 1906.

N. A. KUNZLER.

WINDOW LOCK.

APPLICATION FILED OCT. 12, 1905.

Fig. 1.

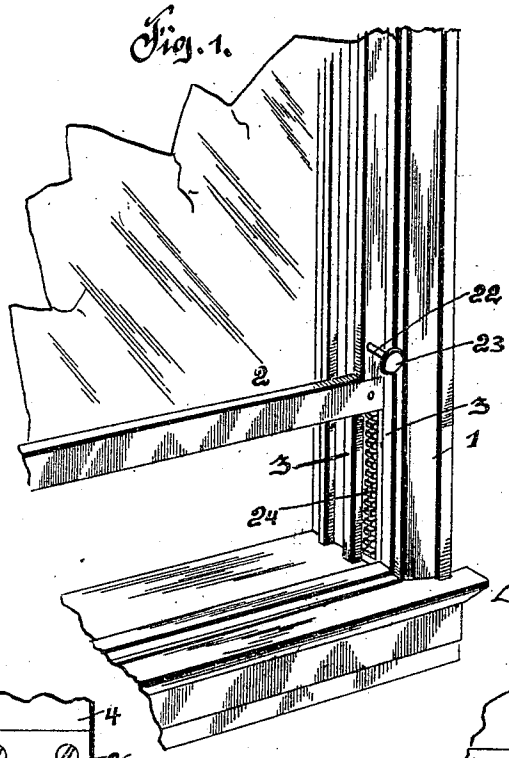
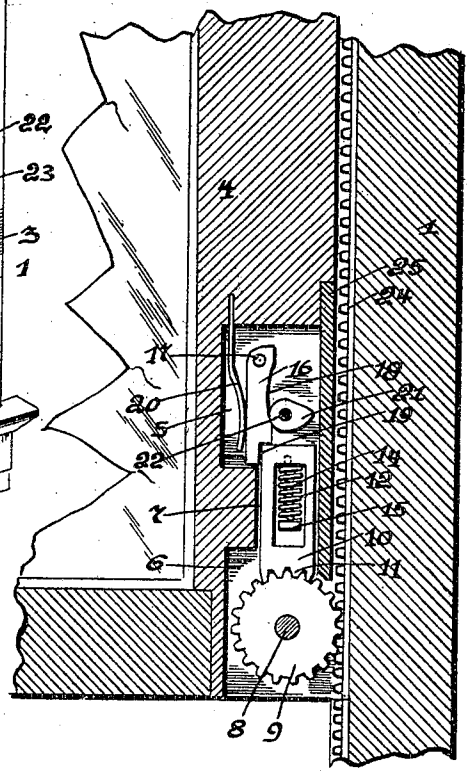


Fig. 2.



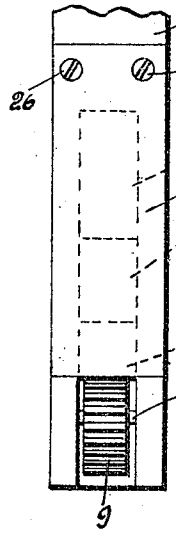


Fig. 3.

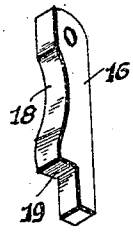


Fig. 4.

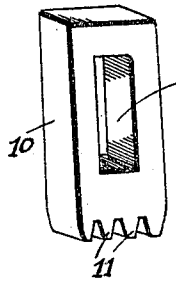


Fig. 5.

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UNITED STATES PATENT OFFICE.

NICHOLAS A. KUNZLER, OF BRADDOCK, PENNSYLVANIA.

WINDOW-LOCK.

No. 812,050. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed October 12, 1905. Serial No. 282,527.

To all whom it may concern:

Be it known that I, NICHOLAS A. KUNZLER, a citizen of the United States of America, residing at Braddock, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Window-Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in window-locks; and the invention has for its object the provision of novel means for effectually locking a window-sash at any position to which it may be adjusted. To this end I have devised a lock adapted to be embodied in the framework of a window-sash and manipulated to lock the sash at any position to which it may be adjusted in a window-frame. In this connection I employ a toothed wheel which is adapted to engage a rack carried by a window-frame. Novel means is employed for engaging the toothed wheel and holding it in a fixed position, thereby retaining a sash in which it is mounted in a fixed position.

The construction of my improved window-lock will be presently described, and reference will now be had to the accompanying drawings, wherein like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a fragmentary perspective view of a window frame and sash constructed in accordance with my invention. Fig. 2 is a fragmentary vertical sectional view of a window sash and frame equipped with my improved lock. Fig. 3 is an edge view of the lower portion of the window-sash. Fig. 4 is a perspective view of a latch employed in connection with the lock, and Fig. 5 is a similar view of a contact-block.

In the accompanying drawings I have illustrated a window-frame 1 having a sash 2 slidably mounted therein, and the movement of this sash may be facilitated by the conventional form of sash-weights, or the sash may be simply retained in the frame by the weather-strips 3 3.

My invention resides in providing the lower edge of the sash 2 at one side thereof with a lock, and in order to accommodate the lock the side frame 4 of the sash is cut away to provide recesses 5 and 6, communicating with one another by a slot 7. In the recess 6 is mounted a pin 8, upon which is journaled a toothed wheel 9. Mounted in the slot 7 is a contact-block 10, the lower edge of which is provided with teeth 11, while the body portion of the block is slotted, as at 12, to accommodate a coiled spring 14, that is mounted upon a lug 15, that extends into the slot 12, said lug being carried by the side frame 4 of the sash. The coiled spring 14 tends to force the block 10 upwardly; but to retain it in engagement with the toothed wheel 9 I employ a latch 16, which is pivotally mounted, as at 17, in the recess 5 of the sash 2. The latch is provided with a cam-surface 18 and a notch or cut-away portion 19, the notch or cut-away portion being adapted to engage the upper edge of the contact-block 10, as clearly illustrated in Fig. 2. The latch 16 is normally held in engagement with the contact-block 10 by a flat spring 20, mounted in the recess 5.

To disengage the contact-block 10 and permit the wheel 9 to rotate, I have mounted the cam 21 in the recess 5, said cam being carried by a shaft 22, that is journaled in the side frame 4 of the shaft and extends outwardly upon the inner side of the sash, as shown in Fig. 1 of the drawings. The outer end of the shaft 22 may be provided with a suitable handle or button 23, whereby it can be easily rotated.

The side of the window-frame 1 coinciding with the edge of the sash 2 is provided with a rack 24, and upon this rack operates the toothed wheel 9, heretofore mentioned.

To protect the mechanism mounted within the recesses 5 and 6 and to guide the contact-block 10 within the slot 7, I provide the edge of the sash with a plate 25, which may be secured to the sash by screws 26 26.

In Fig. 2 of the drawings the sash is illustrated as locked in engagement with the rack 24, and should it be desired to raise or lower the sash and lock it in its adjusted position the shaft 22 is rotated, causing the cam 21 to engage the cam-surface 18 of the latch 16 and move the same outwardly, whereby the spring 14 can force the contact-block 10 upwardly until it engages the cam 21, at which time the wheel 9 can freely rotate and the sash can be moved. To lock the sash in its adjusted position, the shaft 22 is rotated, and through the medium of the cam the contact-block 10 will be forced downwardly, at which time the spring 20 will force the latch 16 inwardly to engage the top edge of the contact-block and retain it in engagement with the toothed wheel 9.

It will be seen that the same consists of

comparatively few parts, that are simple, inexpensive to manufacture, and strong and durable, and it is thought from the foregoing that the construction, operation, and advantages of the herein-described window-lock will be apparent without further description.

What I claim, and desire to secure by Letters Patent, is—

1. In a window-lock, the combination with a window-frame and a sash slidably mounted therein, of a rack carried by said frame, said sash having recesses and a slot formed therein, a toothed wheel journaled in one of said recesses and adapted to engage said rack, a spring-pressed contact-block mounted in said slot and adapted to engage said toothed wheel, a spring-pressed latch mounted in the other of said recesses and adapted to engage said contact-block, a shaft journaled in said frame and a cam carried by said shaft and adapted when the shaft is rotated to engage said latch and said contact-block, substantially as described.

2. In a window-lock, the combination with a window-frame, and a sash slidably mounted therein, of a rack carried by said window-frame, a toothed wheel journaled in said sash and adapted to engage said rack, a spring-pressed contact-block slidably mounted in said sash and adapted to engage said toothed wheel, a spring-pressed latch adapted to engage said block and lock said block in engagement with said wheel, means actuated from the exterior of said sash to alternately move said latch and said contact-block, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

NICHOLAS A. KUNZLER.

Witnesses:

NICHOLAUS A. BONGARTZ,

T. C. JONES.