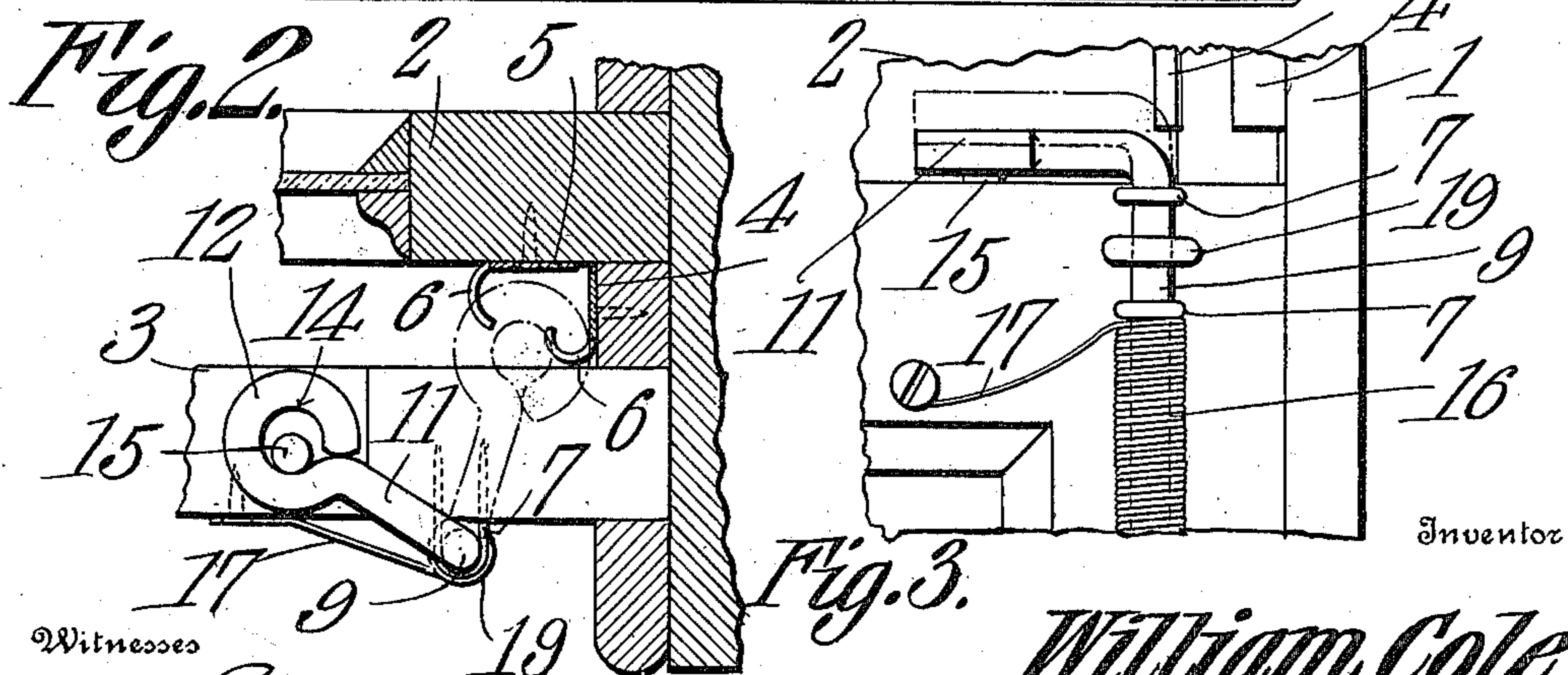
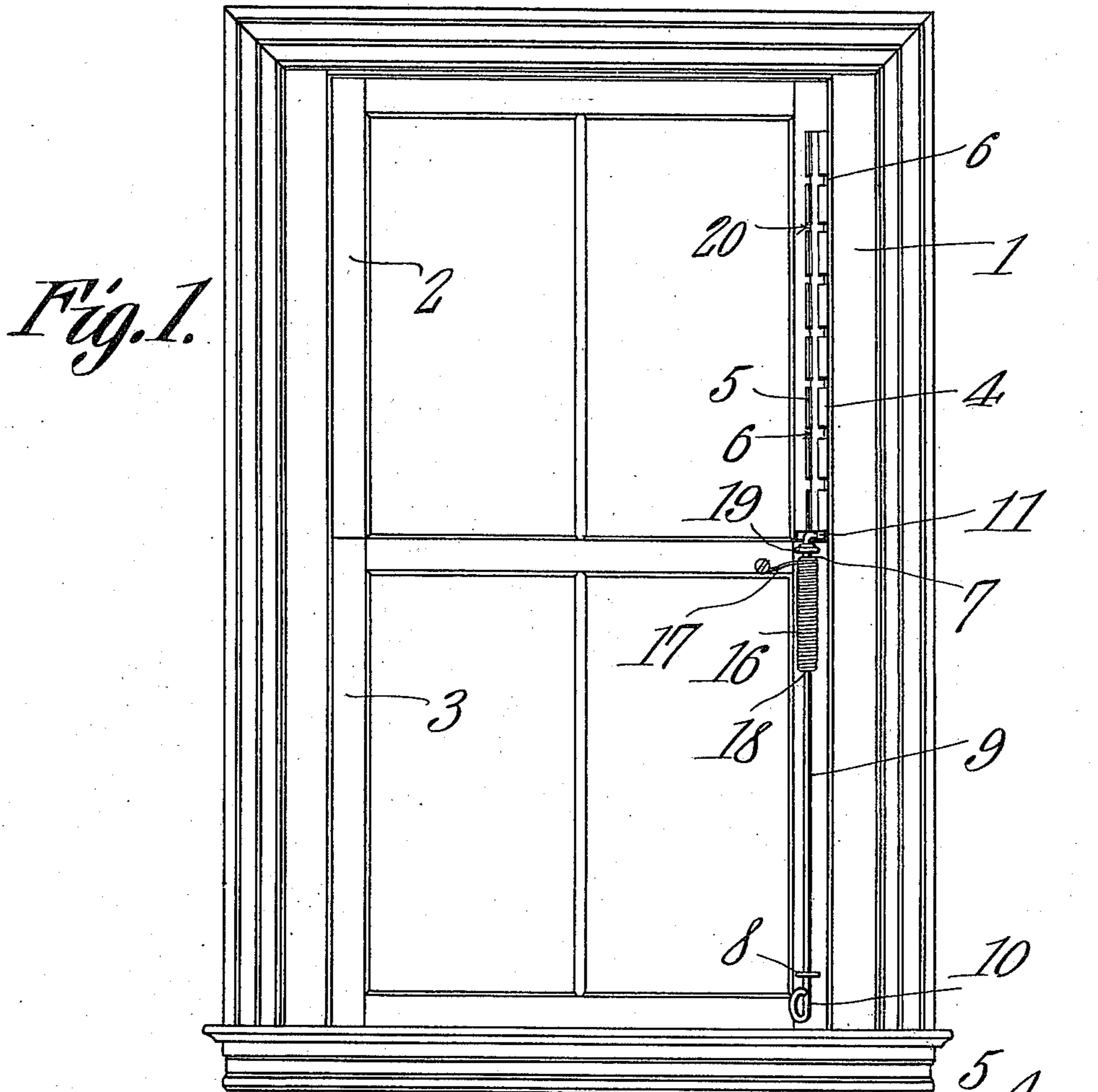


W. COLE.  
WINDOW LOCKING DEVICE.  
APPLICATION FILED MAR. 5, 1910.

963,994.

Patented July 12, 1910.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## WINDOW-LOCKING DEVICE.

963,994.

Specification of Letters Patent.

Patented July 12, 1910.

Application filed March 5, 1910. Serial No. 547,462.

*To all whom it may concern:*

Be it known that I, WILLIAM COLE, a citizen of the United States, residing at Tullahoma, in the county of Coffee and State of Tennessee, have invented a new and useful Window-Locking Device, of which the following is a specification.

It is the object of this invention to provide a window locking device, whereby the upper and lower sashes of a window may be locked together in closed position, locked together in partially opened positions; and whereby either the upper sash or the lower sash may be locked in a partially open position.

Another object of the invention is to provide a novel means for actuating the locking device and for retaining the same in inoperative position.

The drawings show but one form of the invention, and it is to be understood that changes, properly falling within the scope of what is claimed, may be made, without departing from the spirit of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings,—Figure 1 is a front elevation of a window frame and sashes, the same being equipped with the device of my invention, the sashes being shown locked in their closed positions; Fig. 2 is a fragmental transverse section, taken in the plane of the top of the lower sash; and Fig. 3 is a fragmental side elevation upon an enlarged scale.

In the drawings, the frame of the window is denoted generally by the numeral 1. In this frame 1 reciprocate, in the usual, or in any approved, manner, the upper sash 2 and the lower sash 3. Secured to the frame 1 is a strip 4, a strip 5 being secured to one of the stiles of the upper sash 2. These members 4 and 5 are notched as denoted by the numeral 6. Upon one of the stiles of the lower sash 3, adjacent the upper cross rail of said sash, are located alined bearings 7. In these bearings 7, and in another bearing 8 which is located upon the stile of the lower sash adjacent the lower cross rail thereof, is a rock shaft 9. This rock shaft 9, at its lower end, is provided with a hand-hold 10, whereby the rock shaft may be rotated in the several bearings in which it is mounted, and reciprocated longitudinally therein.

The rock shaft 9 is provided with a head 19, located between the bearings 7, the said bearings, contacting with the head 19, serving as stops to limit the longitudinal reciprocation of the rock shaft 9. At the upper end of the rock shaft 9, there is a head 11, which overhangs the upper edge of the lower sash 3. This head 11 is preferably formed by bending the upper end of the rock shaft 9, and the head 11 itself, is bent as denoted by the numeral 12, to define an opening 14. In the upper cross rail of the lower sash 3, there is an upstanding pin 15, and a coiled spring 16 surrounds the rock shaft 9 below the bearings 7. One end 17 of the spring 16 is secured to the lower sash 3, while the other end 18 of the spring 16 is secured to the rock shaft 9.

In Fig. 1 of the drawings, the sashes 2 and 3 are shown in their closed positions, the head 11 of the rock shaft 9 being engaged beneath the strips 4 and 5, thus securing both the upper sash 2 and the lower sash 3, in their closed positions, and against movement. By seizing the hand-hold 10, the rock shaft 9 may be rotated, moving the head 11 from beneath the strips. When this is done, the lower sash 3 may be raised, and the head 11 made to engage another pair of the notches, for instance, the pair of notches to which the numeral 20 is immediately applied. Thus, the lower sash may be locked in a partially open position. In like manner, the upper sash 2 may be slipped downwardly until one of the notches 6 in the strip 5 is disposed opposite to one of the notches 6 in the strip 4, and when the head 11 is brought to engage these alined notches, the upper sash 2 will be locked in a partially open position. Likewise, the upper sash 2 may be slid downwardly, and the lower sash 3 may be slid upwardly, to aline the notches 6 in the strips 4 and 5, and when the head 11 is brought into engagement with these alined notches, the sashes 2 and 3 will be locked in the positions to which they have been slid.

The construction of the springs 16, and the manner of assembling the said spring with the rock shaft 9, are such that the spring, acting torsionally, tends normally to rotate the rock shaft 9, to cause the head 11 thereof to move into the notches 6 in the strips 4 and 5. Sometimes, particularly in windows which are manipulated by means of sash weights, it may be desired to lock the

rock shaft 9 in such a position that the sashes 2 and 3 may be manipulated freely, without causing the head 11 of the rock shaft to register in the notches 6. In such cases, the rock shaft is rotated, so that the opening 14 in the head 11 will, as shown in solid line in Fig. 2, be engaged by the pin 15. In order to cause the head 11 thus to engage the pin 15, the rock shaft is first rotated, and then slid upwardly, so that the opening 14 will be disposed above the pin 15. When this is done, the spring 16 is not only under torsional strain, but at the same time is compressed, and when the rock shaft is released, the spring 16, acting expansively upon the rock shaft 9, will tend to force the head 11 of the rock shaft downwardly, so that the pin 15 will register in the opening 14. Thus, the spring 16 serves at once as a means for actuating the head 11 to engage in the notches 6, and likewise as a means for holding the head 11 down in engagement with the pin 15; and when the head 11 is thus in engagement with the pin 15, the sashes may be slid upwardly and downwardly in the usual manner, without any interference from the head 11 of the rock shaft. By sliding the rock shaft 9 upwardly, the interlocking engagement between the head 11 and the pin 15 may be broken, whereupon the spring 16 will exert its torsional effort to rotate the rock shaft 9, and to actuate the head 11 into such a position that it will exercise its locking function upon the members 4 and 5.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a window sash; a rock shaft slidably and rotatably mounted upon the sash longitudinally of the same and provided with a laterally projecting head, the rock shaft being rotatable in one direction to cause the head to lock the sash in position; elements upon the rock shaft head and the sash adapted to interlock when the rock shaft is rotated in an opposite direction and slid, to hold the rock shaft against rotation into its locking position; and a spring constituting at once,

a means for rotating the shaft into its locking position, and a means for securing the sliding movement of the shaft, to hold the interlocking elements in engagement.

2. The combination with a window frame and upper and lower sashes, of a rock shaft slidably and rotatably mounted upon the lower sash longitudinally of the same and provided with a laterally projecting head; members upon the upper sash and the frame adapted to be jointly and severally engaged by the head when the rock-shaft is rotated in one direction; elements upon the head and the lower sash adapted to interlock when the rock shaft is rotated in an opposite direction and slid, to hold the head out of engagement with said members; and a spring constituting at once, a means for rotating the shaft to engage the said members, and a means for securing the sliding movement of the shaft, to hold the interlocking elements in engagement.

3. The combination with a window frame and a slidably mounted sash, of a rock shaft slidably and rotatably mounted upon said sash longitudinally of the same and having a head to overhang the upper edge of said sash; a fixed stop upon the frame arranged to be engaged by the head when the shaft is rotated in one direction; a projection upon the upper portion of the sash with which the head is adapted to interlock when the rock shaft is rotated in an opposite direction and slid, to hold the head out of engagement with the stop; and a spring coiled about the rock shaft and connected at one end with the rock shaft and at the other end connected with the lower sash, the spring acting torsionally to hold the head in engagement with the stop, and expansively to hold the head in engagement with the projection.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM COLE.

Witnesses:

VIOLA CHICK,  
J. R. COPE.