

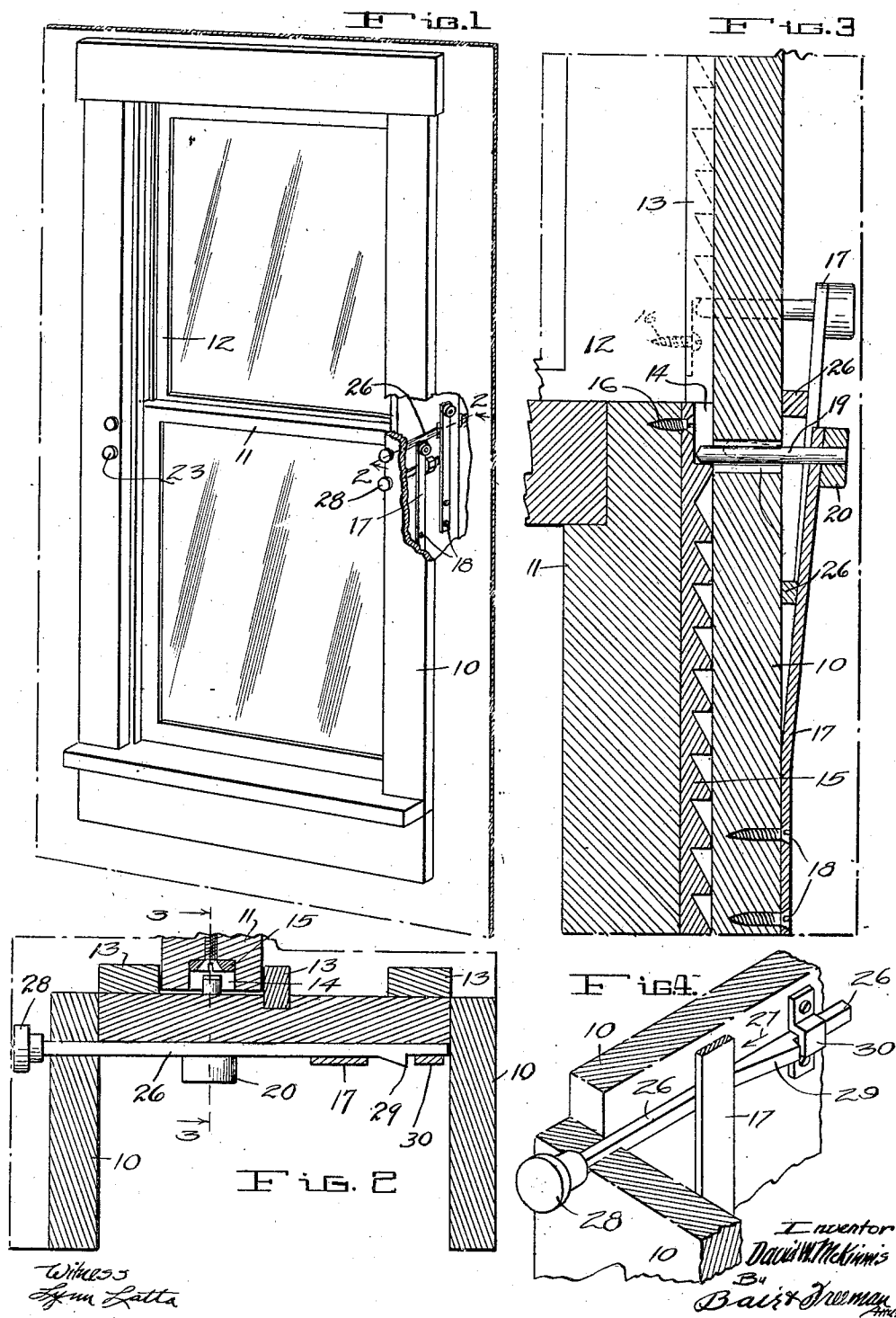
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WINDOW LOCK

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UNITED STATES PATENT OFFICE.

DAVID W. McKINNIS, OF DES MOINES, IOWA, ASSIGNOR OF ONE-HALF TO HOWARD W. GOULD, OF DES MOINES, IOWA.

WINDOW LOCK.

Application filed December 4, 1922. Serial No. 604,783.

To all whom it may concern:

Be it known that I, DAVID W. McKINNIS, a citizen of the United States, and a resident of Des Moines, in the county of Polk and State of Iowa, have invented a certain new and useful Window Lock, of which the following is a specification.

The object of my invention is to provide a window lock of simple, durable, and comparatively inexpensive construction.

More particularly, my invention relates to a lock which is also utilized for holding the window in any of its positions.

More particularly, my invention relates to a spring actuated plunger member for engaging the window sash, thereby locking it against undesired movement.

Still a further object is to provide a control member for the plunger whereby the plunger may be moved and held in inoperative position.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of a window frame and sash with my improved lock shown thereon.

Figure 2 is a sectional view taken on line 2-2 of Figure 1.

Figure 3 is a sectional view taken on line 3-3 of Figure 2; and

Figure 4 is a detail, sectional, perspective, view of my control device.

In the accompanying drawings, I have used the reference numeral 10 to indicate generally a window frame which is provided with a lower sash 11 and upper sash 12. The upper and lower sashes 11 and 12 are mounted for sliding movement, between the guide strips 13.

In each of the sides of the sashes 11 and 12, I form a groove 14, which extends from the top to the bottom of the sash. Within the groove 14 is mounted a notched plate 15. The plate 15 is formed with teeth which have one side inclined. The plate 15 may be secured to the sash by means of screws or the like 16.

Mounted on the sides of the frame 10 are the spring plates 17. The spring plates 17

are secured by means of the screws 18. In the upper ends of the spring plates 17 are the pins 19.

A reinforcing hub 20 is mounted on the upper ends of the plates 17 and has the pins 19 extended therein. The pins 19 project through the openings 21 formed in the side of the frame 10. The pins 19 are designed to engage the notches in the plates 15.

In order to move the pin 19 to the position shown in dotted lines in Figure 3 of the drawings, I provide control bars 26, which project through the casing or frame 10. The control bars 26 are provided with heads 28 which may be engaged for manipulating the bars 26. On each of the control bars 26 I mount a cam face 29 which is designed to engage the spring plate 17 for springing it away from the sash. A bearing 30 is provided for the inner end of the control bar 26.

When the bar 26 is in normal position it will merely touch the spring plate 17 and when in this position will permit the pin 19 to engage one of the notches in the plate or bar 15.

When the bar 26 is slid to cause the cam face 29 to engage the plate 17 and spring it to the position shown in dotted lines in Figure 3, this action will cause the pin 19 to disengage the bar or plate 15, thereby permitting movement of the window sashes.

The plate 15 is so arranged that when the lower sash 11 is in its closed or down position, the pin 19 will engage the plate for preventing any upward movement. When, for instance, it is desired to raise the lower sash, it is necessary to slide the control bars 26, moving the cam face 29 for disengaging the pins 19. The lower sash 11 may then be raised and the pin released so that it will engage the notches in the plates 15.

After the lower sash has been raised a short distance, then it can be raised further without any manipulation of the locking device, in view of the fact that the sides of the notches are inclined. The engagement of the pins 19 with the notches in the plate 15 will prevent the lowering of the lower sash after once raised, unless the pins are withdrawn.

In order to lower the upper sash, it is necessary to withdraw the pin 19 which coacts with the plate 15 on the upper sash. The upper sash can then be lowered as much

as desired and the pins again permitted to engage therewith for holding it against any further movement. The upper sash can be raised without any further manipulation of the pins 19.

It will be seen that when the sashes are in their entirely closed position, they are held against any movement from the outside, due to the engagement of the pins 19 therewith. The pins 19 also serve to hold the windows in any of their raised positions, as the case may be.

It will be seen that I have provided a window locking structure which is to be used without the ordinary weights and cords. My device is very simple and can be easily installed upon window sashes.

From the construction of the parts just described, it will be seen that the movement of the rod 26 in the direction indicated by the arrow 27 will cause the cam surface 29 to engage the spring plate 17 for moving it.

Some changes may be made in the construction and arrangement of the various parts of my invention without departing

from the real spirit and purpose of my invention and it is my intention to cover by my claim, any modified forms of structure or use of mechanical equivalents, which may be reasonably included within its scope.

I claim as my invention:

In combination with a window having casing members, sash receiving frame members, and sashes slidably mounted therein, toothed strips in the edges of the sashes, spring strips mounted on the exterior of the sash receiving frame members, dogs fixed on said spring strips extending through openings in the sash receiving frame members and adapted to coact with the toothed strips, and means for moving the dogs to inoperative position, comprising bars slidably mounted on the frame members between said frame members and the spring strips, and wedge elements on said bars adapted to move the springs outwardly, the bars being projected through the casing members.

Des Moines, Iowa, October 31, 1922.

DAVID W. McKINNIS.