

June 29, 1943.

F. H. BOCK

2,322,815

COMBINED LOCK AND ALARM FOR WINDOWS AND THE LIKE

Filed June 21, 1941

Fig. 1.

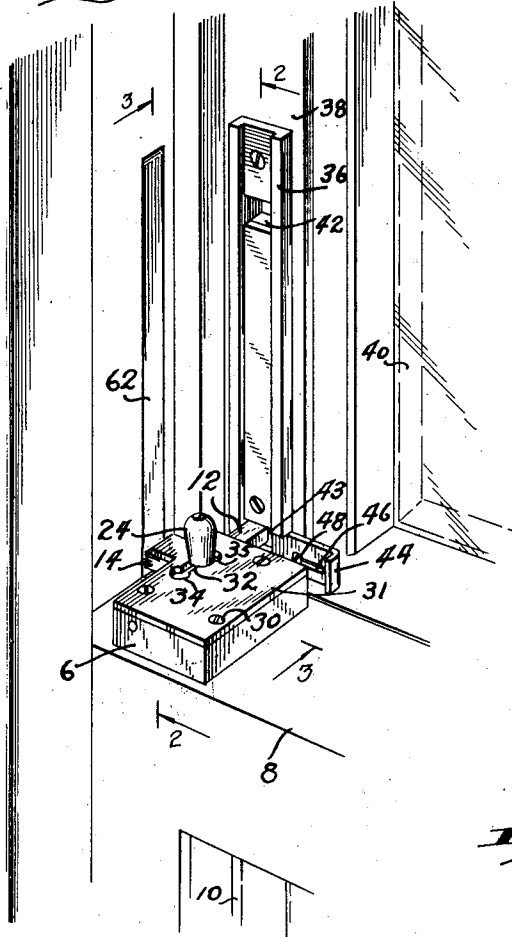


Fig. 2.

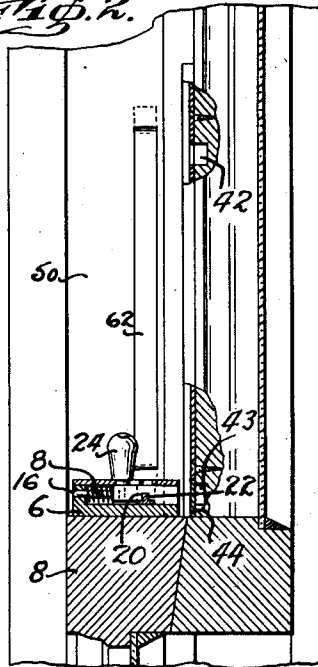


Fig. 3.

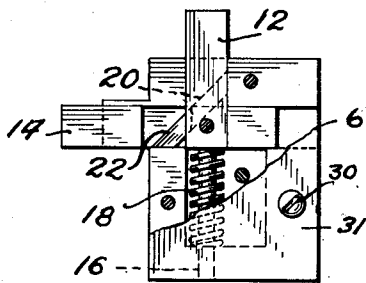
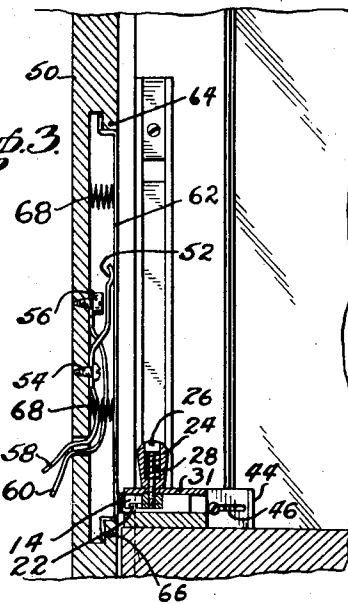


Fig. 4.

INVENTOR
FRED H. BOCK

BY

Kiddell, Bethell & Montgomery
ATTORNEYS

UNITED STATES PATENT OFFICE

2,322,815

COMBINED LOCK AND ALARM FOR WINDOWS AND THE LIKE

Fred H. Bock, Astoria, Long Island, N. Y.

Application June 21, 1941, Serial No. 399,159

1 Claim. (Cl. 200—55)

This invention relates to an improved window lock and burglar alarm and is particularly directed to a device wherein the lock and alarm features are combined and coordinated.

More specifically my invention is directed to a device to be secured for instance to the top of the lower sash of a window and having actuating members, extending at angles to each other, one of said members being the bolt of a lock for engaging the upper window sash and the other an alarm operating member for engaging an electric contact member in the window frame. The two members are so arranged as to be simultaneously and automatically moved into locking and alarming position and to be manually moved out of such position.

One object of the invention is the provision of a device of the character indicated which will permit of operation of the window from the inside of the building by an authorized person, while effectually locking the window against an attempt by an unauthorized person to open the same from the outside without simultaneously sounding an alarm, whether the lower part of the window is raised or the upper part lowered.

A further advantage in my device is the protection afforded against children opening the window from the inside without sounding an alarm.

Other objects of the invention will be manifest from the following description and the accompanying drawing.

In the drawing:

Fig. 1 is a perspective view of my improved device in place on a window;

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1; and

Fig. 4 is a plan view of the device with a portion of the cover plate broken away.

Referring to the drawing in detail 6 designates a housing for a combined lock and alarm actuating device adapted to be secured for example to the upper frame 8 of the lower sash 10 of a window. This actuating device comprises a locking bolt 12 extending transversely of the device and an alarm actuating member 14 extending at right angles to the said bolt. The bolt 12 is provided with a spindle or rod 16 receiving a compression spring 18. The under side of the bolt 12 is provided with a cam slot 20 extending at an angle of about 45° to the longitudinal axis of the bolt. The upper face of the alarm actuating member 14 is provided with an integral rib or cam 22 which is received by the slot 20 of the bolt as

shown in Fig. 2. The slot 20 and the rib 22 provide for the interlocking of the bolt and alarm actuating member 14 whereby movement of one of these members will actuate the other as will be described more in detail hereinafter.

An operating handle or knob 24 is secured to the bolt 12 for manual operation of the device. As will be seen from Fig. 3 the knob 24 is bored longitudinally to receive a screw 26 by means of which the knob is secured directly to the bolt 12. On the shaft of the screw 26 a compression spring 28 is provided which is compressed when the knob is raised.

The cover plate 31 of the device which is secured in place by screws 30 is provided with a slot 32 having an enlarged opening 34 at one end and a similar opening 35 at its other end for the reception of the lower end of the knob 24 to secure the locking bolt and alarm actuating member in either operative or inoperative position.

A keeper plate 36 is mounted on the inside of the side frame 38 of the sash 40 of the upper part of the window adjacent the device 6 on the lower sash. This keeper plate is provided with keeper slots 42 and 43 for receiving the bolt 12 of the locking device. While I have shown but two of these keeper slots it is to be understood that the keeper plate 36 may be provided with as many of such slots as desired. The slot 43 which is adjacent the lower end of the plate 36 is a relatively shallow slot, so that the window may be locked in closed position without sounding the alarm, or in partially open position sufficient for ventilation purposes but insufficient to permit of the entry of a person through the window.

On the same frame of the upper sash as the keeper plate I provide a guard plate 44 for closing off the lower keeper slot when desired. This guard plate has a slot 46 which will permit the plate to slide on the mounting screw 48 into and out of closing position as will be hereinafter further described.

Alarm switch mechanism to be actuated by the alarm actuating member 14 is mounted in the window casement 50. This mechanism comprises a spring contact 52 secured to the window casement 50 by means of screws 54 and a fixed contact 56. Electric conductors 58 and 60 are secured to the contacts 52 and 56 respectively and lead to an electric bell or other alarm device (not shown). A metallic contact-closing strip 62 is secured to the window casement over the said contacts and in the path of the alarm actuating member 14 of the device 6. This strip is held out of contact closing position against abutments 64

and 66 of the casement 50 by means of springs 68.

When it is desired to lock the window closed the guard plate 44 is left in the position shown in Fig. 1. The knob 24 is then raised and moved by the pressure of spring 18 toward the window into locking position. As the knob 24 is moved it will be appreciated that the bolt 12 will be moved in the same direction and will enter the lower keeper slot 43 and at the same time the alarm actuating member 14 will move, by reason of the cam connection 20 and 22 with the bolt 12 toward the plate 62, but by reason of the fact that the slot 43 is relatively shallow the bolt 14 will not depress the plate 62 so that the alarm will not sound.

Should it be desired to raise or open the window from the inside without sounding the alarm, this can be done by raising the knob 24 and moving the same toward the front of the window against the action of the spring 18, the knob being allowed to drop into the opening 34 to lock the device in this position. The window can then be opened and closed at will.

It will now be seen that should an intruder attempt to enter the house by way of the window and raises the lower part of the window to a point where the locking bolt 12 will enter the upper keeper slot 42, the bolt 12 under the action of the spring 18 will be moved into the keeper slot and by reason of the cam connection (20—22) between the bolt and the member 14, the member 14 will depress the strip 62 to move the contact member 52 into engagement with the fixed contact 56 so that the circuit to the alarm will be closed.

It will be appreciated also, that should an intruder force the upper part of the window downward, instead of attempting to raise the lower part of the window, as soon as the window has

been moved down sufficiently for the bolt 12 to slip into the keeper slot 42 the window will be locked against further movement and the alarm will sound.

5 It will be appreciated further that I have provided a construction wherein a window may be locked closed in the normal way, but if the lower part of the window be raised or the upper part lowered by an unauthorized person the window will be locked after a predetermined movement and an alarm sounded.

15 While I have illustrated and described one embodiment of my invention it is to be understood that I do not wish to be limited to the precise details of construction and arrangement of parts herein illustrated and described as various changes and modifications may be made therein without departing from the spirit and scope of my invention.

20 What I claim is:

A device of the class described comprising a housing adapted to be mounted on the lower sash of a window, a locking bolt and an alarm actuating member in said housing, a keeper for said bolt adapted to be carried by the upper window sash, an alarm switch adapted to be carried by the window casement and actuated by said alarm actuating member, said bolt and member being provided with abutting cam faces whereby movement of the bolt will simultaneously move the alarm actuating member, the bolt moving toward the window sash in the direction of said keeper and the alarm actuating member moving toward the window casement in the direction of said switch and automatic means for actuating said bolt and alarm actuating member.

FRED H. BOCK.