L. L. GROVE.

BURGLAR ALARM WINDOW LOCK.

APPLICATION FILED MAY 27, 1914.

1,120,613. Patented Dec. 8, 1914.

Fig. 3.

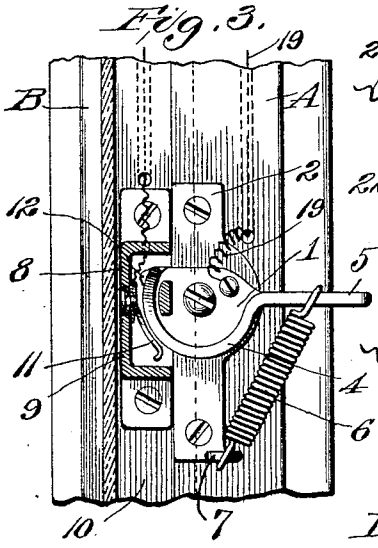


Fig. 4.

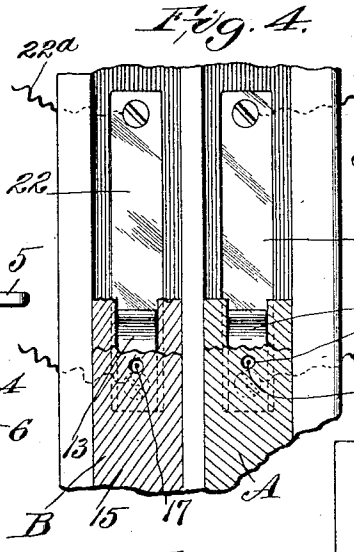
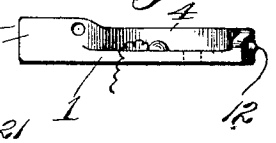


Fig. 5.



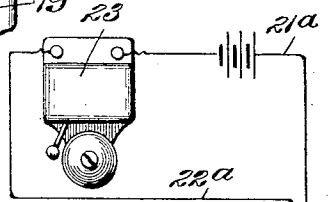


Fig. 2.

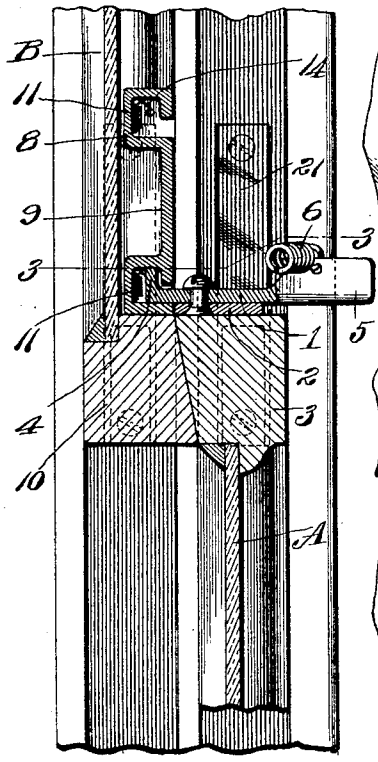
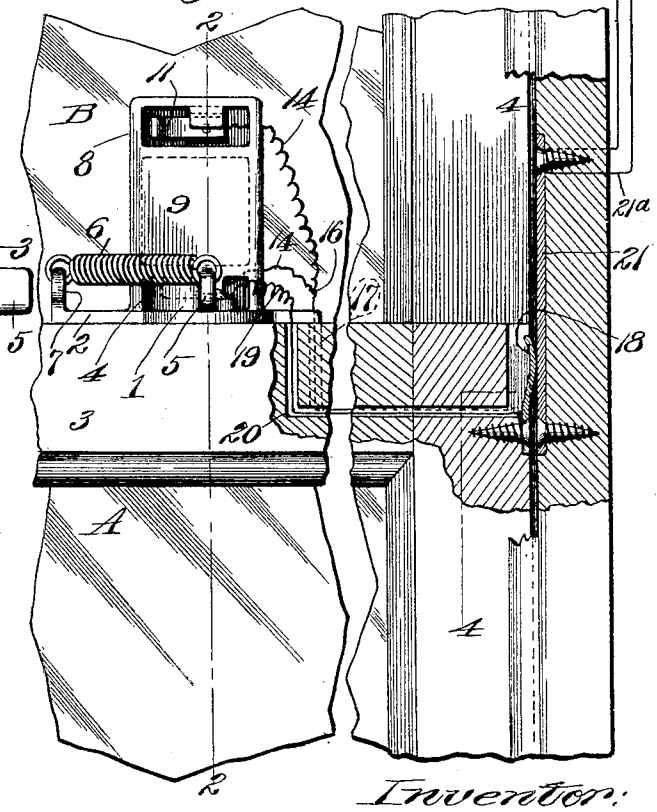


Fig. 1.



Attest:

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BURGLAR-ALARM WINDOW-LOCK.

1,120,613. Specification of Letters Patent. Patented Dec. 8, 1914.

Application filed May 27, 1914. Serial No. 841,218.

To all whom it may concern:

Be it known that I, LOUIS L. GROVE, a citizen of the United States, residing in St. Louis county, State of Missouri, have invented a new and useful Burglar-Alarm Window-Lock, of which the following is a specification.

This invention relates to burglar alarm window locks, and consists in the novel design, arrangement and combination of parts hereinafter more fully disclosed.

An object of the invention is to provide an efficient window lock adapted to lock a window sash in different positions and to equip said lock with electrical connections adapted to operate to sound an alarm whenever the lock is operated to unlatch the window sash.

Other advantages and features of the construction will be apparent without specific mention from the detailed disclosure taken in connection with the accompanying drawing, in which—

Figure 1 is a broken view of the window sash and casing equipped with the burglar alarm window lock embodying the present invention. Fig. 2 is a vertical section taken substantially on the line 2—2 of Fig. 1. Fig. 3 is a horizontal section taken substantially on the line 3—3 of Fig. 2. Fig. 4 is a side elevation of the window casing, a portion of the upper anl lower sash being shown in section; and Fig. 5 is an edge view of the lock bolt.

In the embodiment of the invention illustrated in the drawings, I have shown a lock bolt 1 pivoted on a plate 2 secured to the upper horizontal end 3 of the lower sash A.

The lock bolt 1 includes a segmental vertically disposed flange 4 at the end of a lever 5 which is so pivoted that when said lever 5 is in a position transverse to the upper face of the sash A a portion of the flange 4 extends beyond the outer edge of the sash, as clearly shown in Fig. 3 of the drawing.

A spring 6 is secured at one end to an eye 7 formed at one extremity of the plate 2 and is connected at its other end to the lever 5. This construction results in normally holding the lock bolt in the position shown in Fig. 3. In this position the lock bolt is adapted to engage in the keeper devices 8 formed at spaced intervals in a casing 9 secured to the upper inner horizontal edge 10 of the lower cross piece of the upper sash B.

Upon the wall of the casing 9 and within each keeper device 8 is secured a resilient contact plate 11 with which a projection 12, formed on the lock bolt 1, is adapted to contact when the lock bolt is moved to unlock the sash. The plates 11 are insulated from the casing and are electrically connected with a plate 13 by the wires 14, the plate 13 being secured to one of the side pieces 15 of the upper sash B. The wires 14 are arranged to join at 16 and pass through a conduit or channel 17 in the upper horizontal piece of the sash B.

The lock bolt 1 is electrically connected with a plate 18 secured to one of the side pieces of the lower sash A. The connection of the lock bolt 1 and the plate 18 is effected by means of a wire 19 passing through a channel 20 formed in the upper part of the sash A.

The plates 13 and 18 are adapted to engage and ride upon the plates 21 and 22 secured to the inner face of the window casing. The plates 21 and 22 constitute terminals for an electric circuit comprising the wires 21^a and 22^a into which circuit is connected the alarm device or bell 23.

From the foregoing description it will be apparent that after the lock bolt has been seated in either of the keeper devices 8 it will be impossible to move the lock bolt to unlatch the lock without the projection 12 making contact with the spring plate 11, thereby completing the electric circuit comprising the wires 16, the plate 13, the plate 22, the wires 22^a and 21^a, the plate 21, the wire 19 and the lock bolt 1.

It will also be apparent that the sash of the window may be locked in a position for closing the window entirely, or that the upper sash may be lowered to open the window from the top and locked in such position, or that the lower sash may be raised to open the window at the bottom and locked, and that the alarm device will operate when the lock is opened when the sash of the window is in any of the described positions.

It will be understood, also, that any de-

sired number of keeper devices may be provided so that the sash may be locked in any number of adjustments to open the window to any desired degree either from the top or bottom.

I am aware that numerous changes and modifications of the construction may be made without departing from the spirit and scope of the invention. I do not limit myself, therefore, to exact details, but

What I claim and desire to secure by Letters Patent is:

1. The combination with a window casing, and a window comprising upper and lower sashes vertically movable in said casing, of a case mounted on the upper inner horizontal edge of the lower cross piece of the upper sash, vertically spaced keeper devices formed in said case, a contact plate within each keeper device, a lock bolt pivoted to the upper horizontal edge of the upper cross piece of the lower sash adapted to move in and out of said keeper devices, a contact point on said lock bolt adapted to contact with the contact plate within the keeper device whenever said lock bolt is moved from locked adjustment with said keeper devices, an electric circuit terminating at one end in said contact plate and at the other in said lock bolt, and adjustable connections in said circuit permitting the sash to be moved, substantially as specified.

2. The combination with a window casing, and window sashes mounted therein, of keeper devices carried by one of said sashes and a lock bolt adapted to engage in said keeper devices carried by the other of said sashes, an electric circuit, and means for closing said circuit when said lock bolt is moved from a position within said keepers to unlock the sashes, substantially as specified.

3. The combination with a window casing, and window sashes mounted therein, of an electric circuit, parallel plates secured to the window casing constituting terminals for said circuit, plates carried by one of the window sashes adapted to engage and slide upon said first named plates, an electrical connection between one of said last named plates and a lock bolt carried by one of said sashes, keeper devices carried by the other of said sashes, contact plates within said keeper devices, an electrical connection between each of said contact plates and the other of said plates carried by said sash, and a projection on said lock bolt adapted to contact with the contact plates within the keeper devices whenever said lock bolt is removed from either one of said keeper devices, substantially as specified.

4. The combination with window sashes, and a window casing therefor, of keeper devices carried by one of said window sashes, a lock bolt carried by the other of said window sashes, an electric circuit, terminals for said circuit secured to said window case, an extension of said electric circuit terminating in said lock bolt and in said keeper devices, and means for completing the circuit by movement of the lock bolt into and out of said keeper devices, substantially as specified.

In witness whereof, I have signed this specification in the presence of two subscribing witnesses.

LOUIS L. GROVE.

Witnesses:
L. C. KINGSLAND,
FRED ARMSTRONG, JR.

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