

C. H. A. BAHDE.
 SAFETY BURGLAR ALARM LOCK FOR WINDOWS.
 APPLICATION FILED JULY 5, 1916.

1,237,993.

Patented Aug. 21, 1917.
 2 SHEETS—SHEET 2.

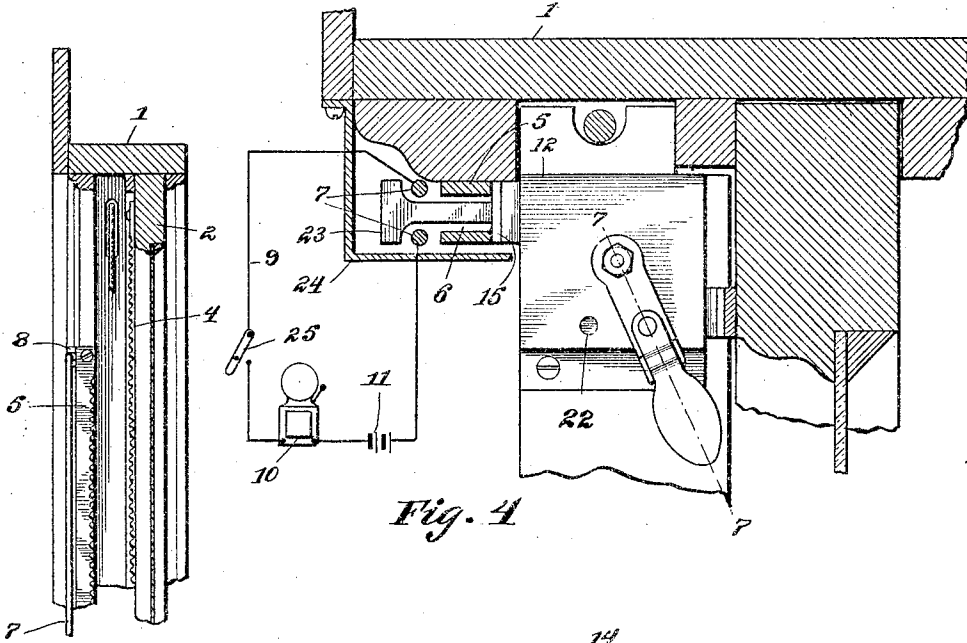


Fig. 4

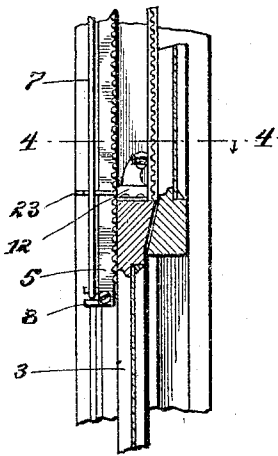


Fig. 3

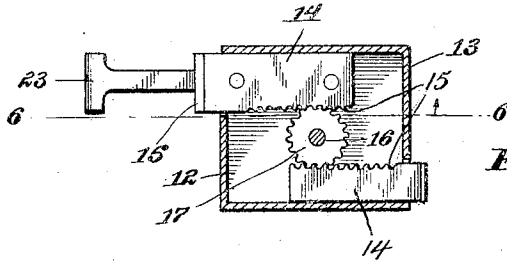


Fig. 5

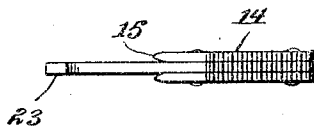


Fig. 6

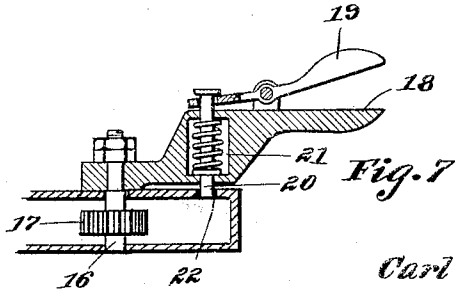


Fig. 7

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SAFETY BURGLAR-ALARM LOCK FOR WINDOWS.

1,237,993.

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To all whom it may concern:

Be it known that I, CARL H. A. BAHDE, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Safety Burglar-Alarm Locks for Windows, of which the following is a specification.

This invention relates to improvements in window sash locks and burglar alarms and has particular application to means for locking both sashes of the window together in any adjusted position of the sashes so as to prevent relative movement thereof.

In carrying out the present invention, it is my purpose to provide a window sash lock and burglar alarm wherein the alarm will be sounded in the event of the unlocking of the lock, thereby notifying the occupants of the premises of the attempted entering.

It is also my purpose to provide apparatus of the class described whereby both sashes of the window may be locked together in any desired adjusted position so as to prevent relative movement of the sashes and whereby, in the event of the releasing of the lock when the alarm apparatus is in service, the alarm will be sounded.

Another object of my invention is to provide a window sash lock and burglar alarm wherein the component parts will be so arranged and correlated as to reduce the possibility of derangement to a minimum and enable access to be had to such parts for the purposes of cleaning and repairing.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claim.

In the accompanying drawings:

Figure 1 is a view in front elevation of a window frame equipped with a sash lock and burglar alarm constructed in accordance with the present invention.

Fig. 2 is a vertical sectional view through the same.

Fig. 3 is a fragmentary vertical sectional view taken at right angles to Fig. 2.

Fig. 4 is a cross sectional view there-through.

Fig. 5 is an enlarged horizontal sectional view through the lock.

Fig. 6 is an enlarged vertical sectional view through the lock.

Fig. 7 is a sectional view on the line 7—7 of Fig. 4.

Referring now to the drawings in detail, 1 designates a window frame of any suitable construction in which are slidably mounted upper and lower sash frames 2 and 3 respectively.

Fastened to the inner side of one side rail of the upper sash is a rack bar 4 of a length substantially equal to that of the side bar, while secured to the adjacent vertical bead strip is a vertical rack bar 5. The toothed surfaces of the rack bars 4 and 5 confront each other and the rack bar 5 is formed with an elongated vertical slot 6. Suitably fastened to the bead strip carrying the rack bar 5 are vertical conductor rods 7 spaced apart in parallelism and insulated from each other and from the rack bar 5. These conductor rods are disposed upon opposite sides of the slot 6 and the ends thereof are passed through lugs 8 respectively which are carried by the rack bar 5. The end portions of the conductor rods that pass through the lugs 8 are insulated from such lugs and the upper ends of the conductor rods are connected to the terminals of an electric circuit 9 including an audible signal as a bell 10 and a suitable source of electrical energy as a battery 11.

Secured to the upper surface of the meeting rail of the lower sash 3 is a lock 12. In the present instance, the lock 12 embodies a casing 13 in which are slidably mounted locking bolts 14 having the relatively opposite ends thereof projecting through slots formed in the front and back walls of the casing 13. The outer ends of these locking bolts 14 are adapted to engage the toothed surfaces of the rack bars 4 and 5 and the confronting edges of the locking bolts 14 within the casing are formed with rack teeth 15. Journaled in the top and bottom walls of the casing 13 between the toothed edges of the bolts 14 is a shaft 16 projecting above the top wall of the casing and keyed upon the shaft 16 within the casing is a pinion 17 that meshes with the toothed edges of the locking bolts 14. Fixed to the upper end of the shaft 16 is a handle 18 and pivoted upon the upper surface of the handle 18 is a lever 19 capable of vertical swinging movement upon the handle and having the inner end connected to a spring actuated pin 20 that works in an opening 21 formed in the handle and is adapted to

interchangeably engage openings 22 formed in the top wall of the casing at the ends of the path of movement of the handle, whereby the handle will be locked in actuated
 5 position. Connected to the locking bolt that engages the rack bar 5 and projecting through the slot in such rack bar is a bridging finger 23 that is adapted to bridge the
 10 conductor rods 7 when the bolt is retracted and to disengage such rods when the bolt is in locking position.

In the present instance, the rack bar 5, the conductor rods 7 and the bridging finger are inclosed in a casing 24 fastened to the
 15 head strip carrying such rack bar and conductor strip and designed to prevent tampering with the conductor strips and the bar.

In practice, the sash frames 2 and 3 are
 20 moved to the desired position and the handle 18 rotated to impart similar movement to the shaft 16, thereby causing the pinion 17 to engage with the rack teeth 15 to project the locking bolts 14 into engagement
 25 with the respective toothed surfaces of the rack bars so as to lock the sashes together. As the handle reaches the limit of its movement, the spring actuated pin 20 drops into the registering openings 21 and 22, thereby
 30 holding the handle against accidental movement. As long as the locking bolts are projected, the bridging finger 23 is disengaged from the conductor rods 7. When, however, the locking bolts are retracted, the
 35 bridging finger 23 bridges the conductor rods 7, thereby closing the circuit 9 and energizing the bell 10. A suitable switch 25 is preferably connected in the circuit 9

so that the circuit may be opened and closed at the will of the occupant of the protected
 40 structure.

While I have herein shown and described the preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the
 45 precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claim and without departing from the spirit of the invention. 50

I claim:

In apparatus of the class described, the combination with the upper and lower sash frames of a window, of a rack bar secured to the inner surface of one side rail of the
 55 upper sash, a rack bar secured to the adjacent bead strip and having the teeth thereon confronting the teeth on the first-mentioned bar and formed with an elongated slot, locking bolts carried by the meeting
 60 rail of the lower sash and adapted to be projected into engagement with said rack bars and disengaged therefrom, conductor rods parallel with each other and secured to said
 65 bead strip upon opposite sides of said slotted rack bar, and a bridging finger carried by one of said bolts to bridge said conductor rods when the bolt is in retracted position and to disengage said rods when the bolt is in projected position. 70

In testimony whereof I affix my signature.

CARL H. A. BAHDE.

Signed in presence of—
 O. W. Bow,
 CLARA ENGEL.

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