L. E. ROBINSON.

ALARM AND SASH LOCK.

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1,017,804.

Patented Feb. 20, 1912.

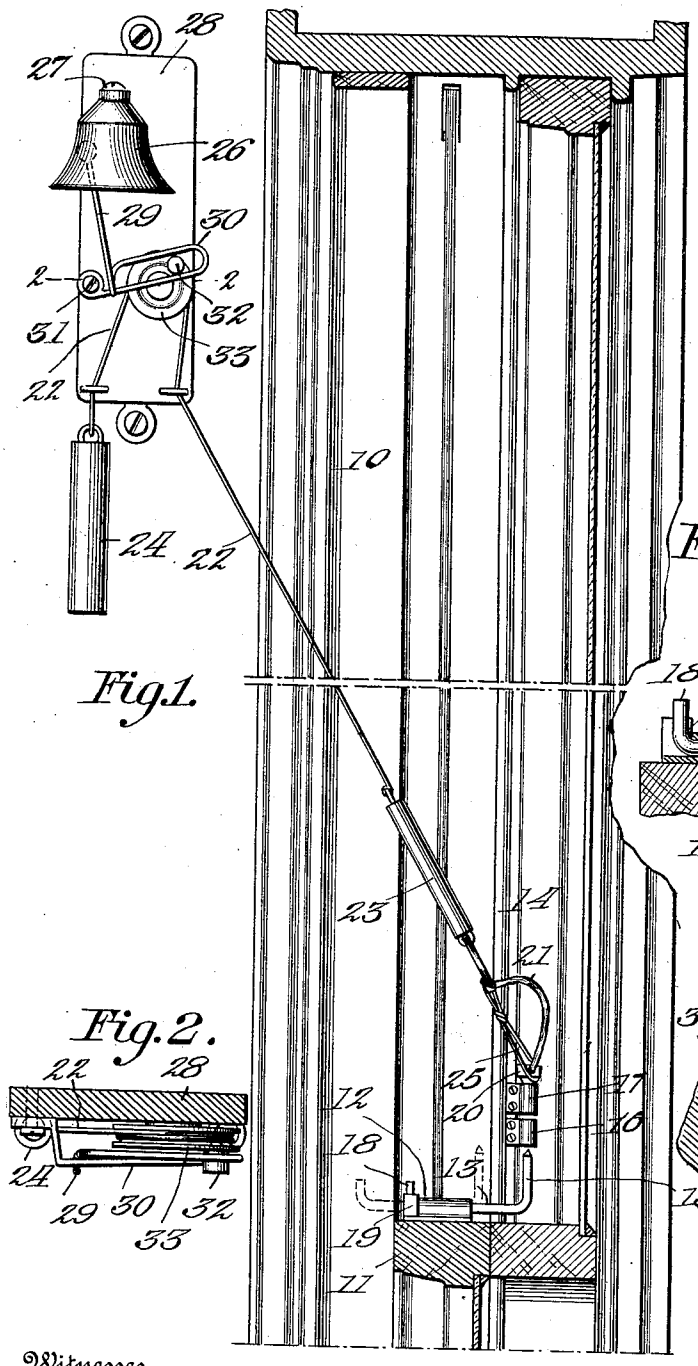


Fig. 1.

Fig. 2.

Fig. 3.

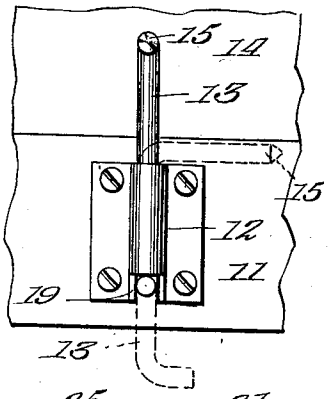


Fig. 4.

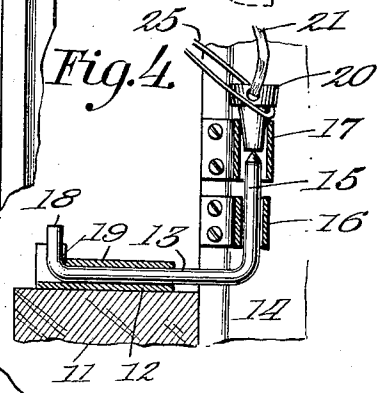
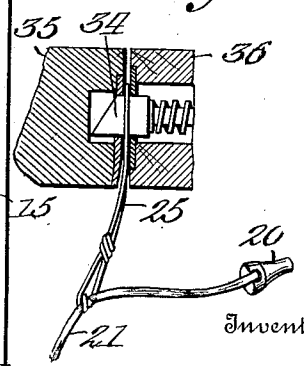


Fig. 5.



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UNITED STATES PATENT OFFICE.

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ALARM AND SASH-LOCK.

1,017,804. Specification of Letters Patent. Patented Feb. 20, 1912.

Application filed April 23, 1910. Serial No. 557,246.

To all whom it may concern:

Be it known that I, LAWRENCE E. ROBINSON, a citizen of the United States, residing at Coffeyville, county of Montgomery, State of Kansas, have invented certain new and useful Improvements in Alarms and Sash-Locks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an alarm and sash lock and particularly to a structure adapted to actuate an alarm in case of fire or when a window is opened and also to permit the opening of a window for ventilating purposes.

The invention has for an object to provide an alarm mechanism provided with an actuating cable having tension means and a loop upon said cable adapted to be released by a movable part.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features defined by the appended claims.

In the drawing—Figure 1 is a vertical section of a window showing the invention applied thereto, the alarm mechanism being in elevation; Fig. 2 is a cross section through the alarm mechanism upon the line 2—2 of Fig. 1; Fig. 3 is a top plan of the sash lock bolt; Fig. 4 is a vertical section thereof in locking position; and Fig. 5 is a modified application of the invention to the latch of a door.

Like numerals of reference refer to like parts in the several figures of the drawing.

The invention is designed for any desired application in which the actuating weight for the alarm is held under tension, but as illustrating one application thereof, it is herein shown as applied to the sashes of a window frame 10. The lower sash 11 thereof is provided with a casing 12 secured thereto within which the bolt 13 is rotatably mounted. This bolt when drawn outward, as shown in Fig. 3, rests upon the midrail of the lower sash 12 and does not contact with the sash 14. When turned into a vertical position, as shown in Figs. 3 and 4, the angular end 15 of this bolt is disposed in alinement with the keepers 16 and 17 carried by the upper sash. The outer end of the bolt is formed with a handle 18 adapted to seat in a recess 19 of the keeper 12 so as to retain the bolt in vertical position as shown in Fig 4. This bolt coöperates with the keeper 17 secured to the upper sash 14 and when the parts are in locking position, extends into this keeper if the lower sash, by which the bolt is carried, be raised. The keeper 17 is provided with a plug 20 adapted to be inserted in the upper end of the keeper 17. This plug is connected to a fusible portion 21 which may constitute a fire alarm when the temperature rises to a point to fuse this portion of the cable. The remainder of the cable 22 may be of any desired construction and is provided with a counterbalancing weight 23 and with an actuating weight 24 by which tension thereon is constantly applied. The connecting cable 22 is provided at its free end with a loop portion 25 which is adapted for application in various constructions, one illustration thereof being shown in Figs. 1 and 4, where the loop embraces the plug 20 so that when said plug is released from its keeper, the alarm mechanism will be actuated and thus provide a combination burglar and fire alarm with a ventilating sash lock.

A desirable form of alarm mechanism is shown in Fig. 1 wherein the bell 26 is mounted at 27 upon the support 28, while the hammer 29 thereof is carried by a yoke 30 pivoted at 31 and adapted to engage a crank pin 32 carried by the wheel 33 mounted upon the driving shaft. This wheel is actuated by means of the cable 22 which extends thereover to the weight 24 which provides the necessary gravity force to properly operate the parts.

In the application of the invention, the modified form thereof is shown in Fig. 5 wherein the loop 25 is adapted to be inserted between a door and its casing so that the bolt 34 carried by a door 36 is adapted to enter the door casing 35 and to extend through this loop. As soon as this bolt is withdrawn for the purpose of opening the door, the loop will be released and removed from contact therewith through the weighted portion 24 of the cable 22. In the application of the invention, it is desirable to retain the cable 22 under tension either in connection with a sash lock or other mechanism to be released.

In the operation of the invention, as shown in Fig. 1, if the lower sash 11 be raised, the bolt 13 carried thereby will be projected through the keepers 16 and 17 and force the plug 20 out of position from the latter keeper so as to release the loop 25 and

permit the weight 24 to rotate the wheel 33 and thus actuate the bell hammer 29 to continuously sound an alarm until all of the cable 22 has passed over said wheel. It will be apparent that the same result can be obtained by the use of the plug 20 without the loop 25 being inserted thereover and also that this loop when embracing any releasable part, such as the latch of a door will operate in a similar manner to sound the alarm as the cable is held under tension and will automatically operate as soon as the loop or plug is released from the part to which it is attached.

It will be apparent that the invention presents a simple, efficient and economically constructed device adapted for both a fire and burglar alarm and also for a ventilating sash lock which will permit a partial raising of one sash while an attempt to raise it further will operate the alarm mechanism.

Having described my invention and set forth its merits what I claim and desire to secure by Letters Patent is—

1. In a device of the class described, a cable provided with a weight at both ends, an alarm device actuated by frictional contact with said cable, a retaining loop at one end of said cable, and a releasing device carried by a movable member and coöperating with said loop.

2. In a device of the class described, a cable provided with tension means, an alarm device connected for operation by said cable by frictional contact therewith, a retaining loop at one end of said cable, releasing means extending through said loop for retaining said cable, and a movable member adapted to actuate said releasing means.

3. In a device of the class described, a cable provided with a weight at both ends, an alarm device having a member connected with said cable, a retaining loop carried by said cable, a releasing device for detachably securing said cable, a fusible portion connected to said cable, and a movable member adapted to actuate said releasing device.

4. In a device of the class described, a cable provided with tension means, an alarm device connected for operation by said cable by frictional contact therewith, a retaining loop at one end of said cable, a plug adapted to be engaged by said loop, a keeper to receive said plug, and independently movable means to engage and release said plug from said keeper.

5. In a device of the class described, a cable provided with tension means, an alarm device connected for operation by said cable, a retaining loop at one end of said cable, a plug to be engaged by said cable, a keeper adapted to receive said plug, and a bolt mounted upon a movable part to enter said keeper and release said plug.

6. In a device of the kind described, the combination with a wheel for operating an alarm, of a cable passing over said wheel and having frictional engagement therewith for rotating said wheel, weights carried by the respective ends of said cable, a loop connected to one of the weights of said cable, a detachably mounted member for retaining said loop, and a movable member for detaching said detachable member.

7. In a device of the class described, a movable member having a pivotally mounted bolt thereon, a coöperating member provided with a keeper, a cable provided with a loop, a plug mounted in said keeper and adapted to be embraced by said loop, and tension means connected to said cable to operate an alarm mechanism when said plug is released.

8. The combination with an alarm, of a weighted cable for operating said alarm, a loop connected to one end of said cable, a detachable member for holding said loop, and a movable member for detaching said detachable member.

In testimony whereof I affix my signature in presence of two witnesses.

LAWRENCE E. ROBINSON.

Witnesses:
J. B. ELLIS,
SEBASTIAN HAHN.