C. F. LEE.

BURGLAR ALARM.

APPLICATION FILED MAR. 26, 1913.

1,104,734. Patented July 21, 1914.

Fig. 1.

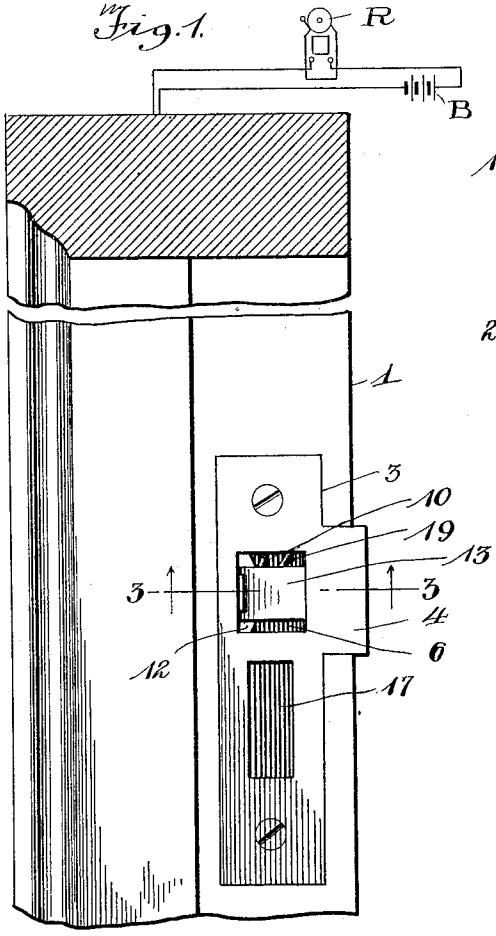


Fig. 2.

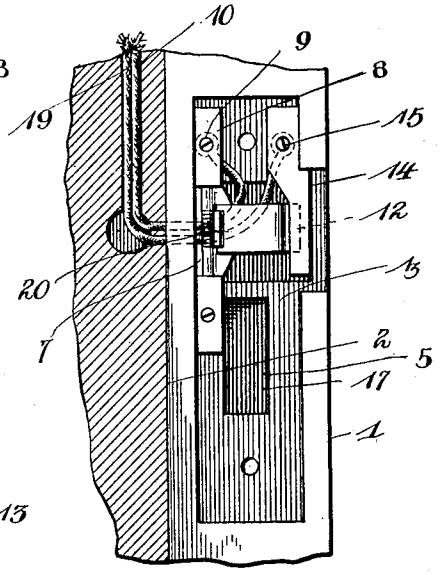


Fig. 3.

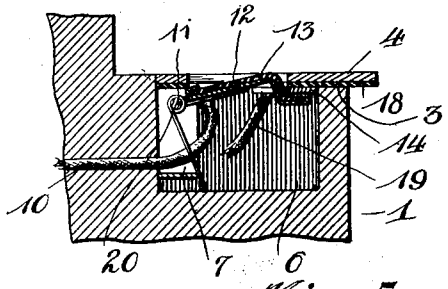


Fig. 4

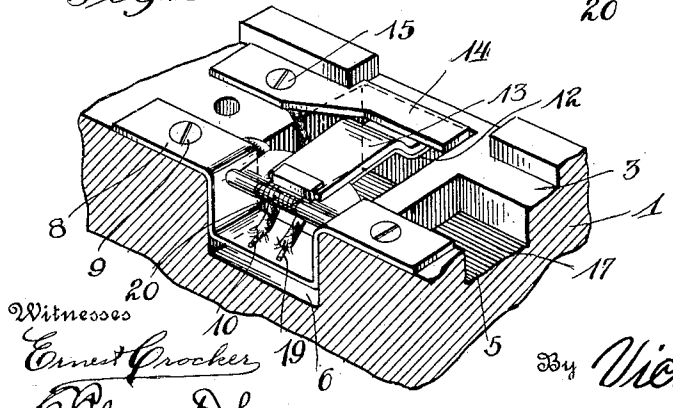
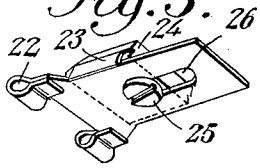


Fig. 5.



Witnesses

Ernest Crocker

E. Edwards Jr.

Inventor

Charles F. Lee

By Victor J. Evans

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES FREMONT LEE, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILLIAM L. ROHRER, OF CHICAGO, ILLINOIS.

BURGLAR-ALARM.

1,104,734. Specification of Letters Patent. Patented July 21, 1914.

Application filed March 26, 1913. Serial No. 756,950.

To all whom it may concern:

Be it known that I, CHARLES FREMONT LEE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Burglar-Alarms, of which the following is a specification.

This invention relates to burglar alarms and more particularly to lock or door-controlled devices of this character.

One of the principal objects of the invention is to provide a device of this character which is controlled solely through the latching bolt on the door which is constantly in engagement with the keeper plate when the door is closed and is operated only through the ordinary knob or thumb piece. If the alarm were controlled through the locking bolt or night latch bolt and the occupant of the house failed to lock the door the alarm would be inoperative, but the operation of the night latch bolt or knob-controlled bolts being automatic eliminates the chances of failure of operation of the alarm, because it is necessary to turn the knob or otherwise operate the latching bolt before the door can be opened.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:—

Figure 1 is an elevation of the door frame showing the keeper plate and the circuit of the alarm in diagram. Fig. 2 is a similar view with the keeper plate and insulating strip removed. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1 with the latch bolt shown in dotted lines. Fig. 4 is a perspective view of the pivoted contact and its supporting member. Fig. 5 is a perspective view of a modified form of contact member.

Referring more particularly to the drawing, 1 represents the frame of a door and 2 the jamb or striking strip against which the door rests. When closed the frame 1 is mortised, as shown in Fig. 2, at 3, to provide for the reception of the keeper plate 4 and an insulating strip to be hereinafter described. The frame is also mortised, as shown at 5, to receive the latching bolt. Secured in the mortise 6 is a yoke member 7 having a lateral securing extension 8 through which a screw 9 passes to bind the yoke member in the mortise 6 and to secure the end of one of the circuit wires 10. Pivoted between the sides of the yoke on a shaft 11 is a contact member 12 suitably faced with an insulating plate or block 13 adapted to be engaged by the latching bolt of the lock. This contact member has its extremity bent over the end of the plate 13 so as to hold the plate in position and so that the contact plate 12 will engage a contact spring 14 which is secured in the mortise 3 by a screw 15 and extends over the mortise 6.

Mounted in the mortise 3 and provided with apertures 16 and 17 for the reception of the latching and locking bolts, respectively, is an insulating plate 18 which covers the metallic portions of the contact 12 and also covers the contact spring 14. This insulating plate or strip as preferably formed is mica or other suitable insulating material and is held in position by the keeper plate 4. The screw 15 also holds the end of the circuit wire 19 in position against the contact 14. The circuit wires are extended out of the mortise 6 beneath the striking strip 2 and are connected in the usual manner to a battery B and an ordinary ringer R. When the door is closed the latching bolt will be projected and will hold the contact 12 away from the contact spring 14, thus disrupting the circuit. When the knob is operated to release the latch bolt the contact 12 will be carried into engagement with the contact 14 by the action of the spring 20 and the circuit will be completed, thus sounding the alarm, before the door is opened and continues to operate when the door is open until the circuit is broken by a cut-out switch or the door is closed.

In the modification shown in Fig. 5 the contact plate is provided with the usual pivoting eyes at one end and at its sides has retaining lips or flanges 23 which prevent lateral movement of the insulating plate or block 24. This block in this instance is held in adjusted position by a set screw 25 which works in a longitudinal slot 26 formed in the plate. This type of contact plate 4 makes it adaptable for all sizes of keeper plates and makes it also adjustable for wear.

What I claim is:—

1. In a burglar alarm, the combination with an electric circuit including a source of current and a ringer, of a keeper plate having a latching bolt opening, a contact spring

secured beneath the plate and connected to one terminal of the electric circuit, a yoke member arranged beneath the keeper plate and connected to the other terminal of the electric circuit, a spring operated contact pivoted between the side of the yoke member and adapted to engage the first-named contact when released by the latching bolt and a bolt engaging insulating member carried by the spring operated contact.

2. In a burglar alarm, the combination with an electric circuit including a source of current and an audible alarm, of a keeper plate having a latching bolt opening, a contact spring secured beneath the plate and connected to one terminal of the electric circuit, means for insulating the spring from the keeper plate, a supporting member arranged beneath the plate and connected to the opposite terminal of the electric circuit, a spring actuated contact pivoted to said supporting member and adapted to engage the opposite contact and an insulating plate carried by said last-named contact and adapted to be engaged by a latching bolt.

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

CHARLES FREMONT LEE.

Witnesses:
W. B. HARMON,
J. M. LASKA.

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