(No Model.)

J. C. KENMOUTH.

ELECTRIC ALARM.

No. 590,267. Patented Sept. 21, 1897.

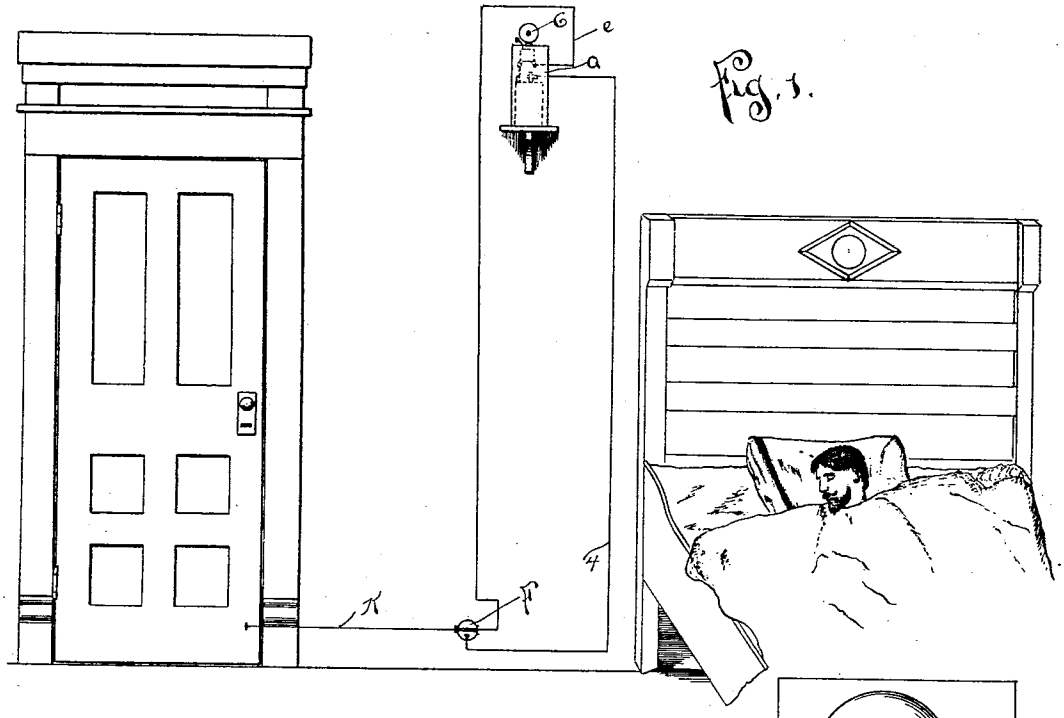


Fig. 1.

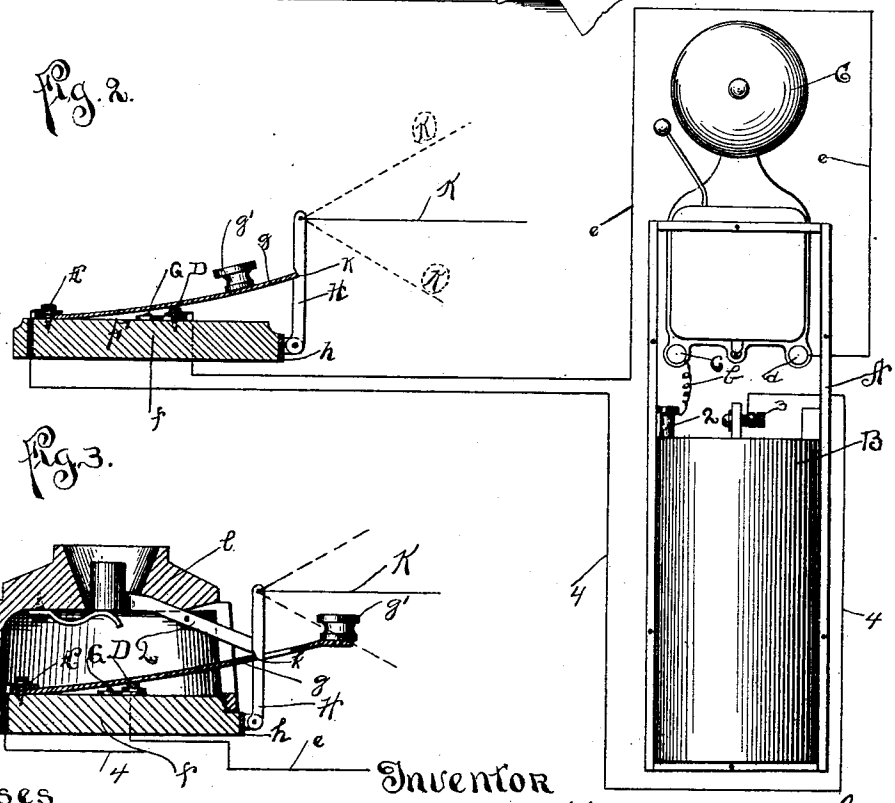


Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN C. KENMOUTH, OF SPEARFISH, SOUTH DAKOTA, ASSIGNOR OF ONE-HALF TO FRANK H. BLACK, OF RUSHVILLE, NEBRASKA.

ELECTRIC ALARM.

SPECIFICATION forming part of Letters Patent No. 590,267, dated September 21, 1897.

Application filed January 20, 1896. Renewed June 14, 1897. Serial No. 640,760. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. KENMOUTH, a citizen of the United States, and a resident of Spearfish, in the county of Lawrence and State of South Dakota, have invented certain new and useful Improvements in Electric Alarms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a simple yet efficacious form of electric alarms which is especially adapted for use as a burglar-alarm, although its applications are innumerable, as will hereinafter appear, and which can be used in houses, hotels, factories, banks, or other structures wherever an alarm is desired either to guard against theft, danger, or for other reasons, substantially as hereinafter fully described and as illustrated in the drawings, in which—

Figure 1 is a diagrammatical view of my invention. Fig. 2 is a section of the switch used in my invention, showing the electrical connections and the box or casing, in which are placed the battery and bell, with its front board or plate removed, so as to expose the same to view. Fig. 3 is a section of a modified form of the switch.

In the drawings, A represents an oblong box or case which is made of wood or other suitable material and which is provided with a front plate or cover *a*, which is preferably secured thereto by means of screws, but which may be removably fixed to the same in any other manner. In this box *a* the primary battery B is placed, and preferably above this battery I secure an electric bell C of any suitable commercial form in such manner that the gong and hammer thereof will project through a suitable opening above the upper end of the box. The battery B may be either a dry or solution battery, and it has one of its electrodes 2 electrically connected by means of a short wire *b* to one of the contact-posts *c* of the bell, as shown. The other contact-post *d* of the bell has a wire *e* connected thereto, which leads to and has its other end connected to the positive post D of the detective-switch F. The electrode 3 of the battery has a wire 4 connected to it, which leads therefrom and has its other end connected to the negative post E of switch F. Thus when the two posts D and E of switch F are electrically connected an electric circuit is established, the elements of the bell energized, and the bell is rung. This detective-switch is the most novel feature of my improvement. It consists of a base or supporting plate *f*, which is either circular, square, or of any other suitable design, and has its central portion raised or stepped out from its marginal edges, so as to provide a platform to which a leaf-spring *g* is secured. This spring is preferably made very stiff and is secured at one end by or is electrically connected with the post D, so that normally it bears down upon the contact-point G, which is located about the center of the platform of plate *f* and electrically connected to the post E, preferably by a segmental plate *h*. The length of spring *g* is such that its free end projects diametrically beyond the edge of the platform of said plate *f* to a point about in front of the edge of the plate itself, and said spring has at a suitable point near its end a knob *g'*, by means of which it can be grasped to lift it out of contact with contact-point G. In order to hold said spring *g* out of contact with said point G when the necessity for ringing the bell does not exist, I have provided a trigger H, which consists of a straight piece of metal having one end pivoted to the edges of plate *f* or between the corresponding lugs projecting from a plate *h*, secured to said edges, as shown. The edge of this trigger nearest the spring *g* is at a suitable point along its length provided with a niche or notch *k*, into which the free end or point of said spring enters, when said spring is lifted or pulled out of contact with point G a suitable distance and said trigger is placed in suitable position with relation thereto, as shown, and thus the bell-circuit is opened. Now to the free end of the trigger I secure in a suitable manner one end of a thin snare-wire K, which is of any desired length to reach and have its other end secured to a window-sash or a door or such other object as it is desirable to secure it.

In operation the box containing the battery and electric bell is placed in any part of the building, according as desired, and the de-

tective-switch near the same or in any other place where it is desired to prevent the opening of a door or window or other thing which it is desired to prevent being moved without detection. In order to do this, I open the bell-circuit by moving the spring *g* out of contact with point G and holding it out of contact by the trigger *k* and then running the snare-wire to and fastening it to the shut door, say, to which it is fastened by means of a nail or screw-eye or other device. In doing this care should be taken to get the snare-wire as taut as possible and yet not release the spring *g*. Thus when the door is opened (the disposition of the switch being such as to insure this) the snare-wire pulls the trigger, releases the spring, thereby closing the bell-circuit and sounding the alarm.

In Fig. 1 I show a modified form of my improved switch. The only difference between this form of switch and that heretofore described is that it has a cover I, similar to those of the ordinary push-button, and has a short lever L, one end of which extends up through the central opening in said cover, and the other end extends to and against the trigger. This lever I is so fulcrumed that when its engageable end is pressed up its other end pushes the trigger away from the spring, and thus releases the latter, so that it closes the circuit, this enabling it to combine the functions of a push-button and detective-switch. While this could be done, I prefer the construction heretofore described.

I do not wish to be confined to the use of one snare-wire, as it is obvious that as many as desired could be used. One wire, for instance, may lead to the door or to each door in the room, others could lead to and be connected with each window, and yet others could be run to and connected with other objects, the moving of which it is desired to prevent without detection. In fact a network of wires may be provided, if desired, and yet be covered by the spirit of my invention.

As heretofore described, the trigger is pivoted so that its movement is limited to one direction. I do not desire to be understood as confining myself to such manner of connection and would suggest that a ball-and-socket joint or other form of universal joint for said trigger might be employed, so as to permit said trigger to be moved in any direction. Such a joint is particularly useful where more than one snare-wire is used, because said wires would necessarily lead in different directions from said trigger.

What I claim as new is—

1. The combination with an electric circuit, a battery, an electric bell and box inclosing the same, as described, of a plate *f*, posts D and E, a strong flat spring having one end secured to said plate and electrically connected to one of said posts, a contact-point electrically connected to the other of said posts, and against which said spring normally bears, a trigger having one end suitably secured to said plate and having a notch therein into which the end of said spring catches when it is moved and of engagement with said contact-point, and a snare-wire connected to the outer end of said trigger.

2. The combination with an electric circuit, of a plate *f*, posts D and E, a flat spring having one end secured to said plate and electrically connected to one of said posts, and from whence it extends across said plate to its opposite edge and is provided with a knob to pull its free end outward, a contact-point electrically connected to the other of said posts, against which said spring normally bears, a trigger having one end suitably secured to said plate near the free end of said spring having a notch therein in which said free end catches when said trigger is in proper position, and a snare-wire one end of which is connected to the free end of said trigger, as and for the purpose set forth.

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Witnesses:
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