(No Model.)

H. W. REYNOLDS.

BURGLAR ALARM.

No. 487,128. Patented Nov. 29, 1892.

Fig. 1.

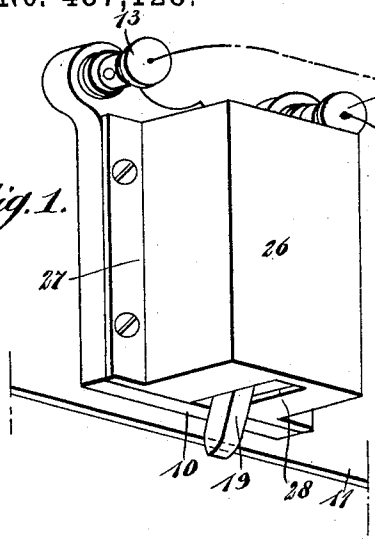
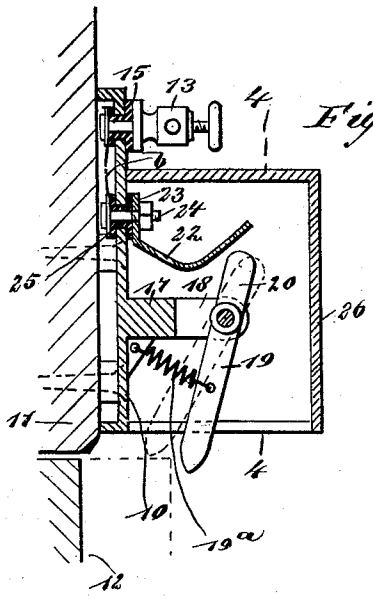


Fig. 2.



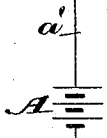


Fig. 4

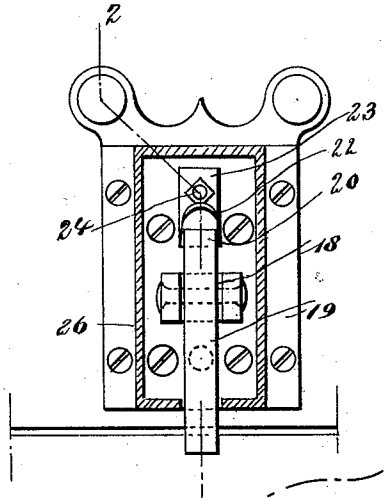
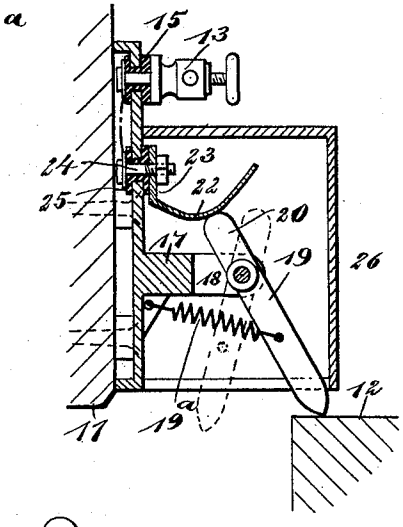
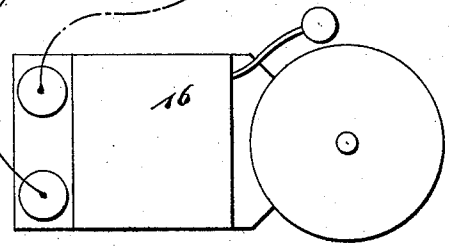


Fig. 3.





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UNITED STATES PATENT OFFICE.

HARRY W. REYNOLDS, OF LONG BRANCH, NEW JERSEY.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 487,128, dated November 29, 1892.

Application filed April 6, 1892. Serial No. 427,997. (No model.)

To all whom it may concern:

Be it known that I, HARRY W. REYNOLDS, of Long Branch, in the county of Monmouth and State of New Jersey, have invented a new and Improved Burglar-Alarm, of which the following is a full, clear, and exact description.

My invention relates to improvements in burglar-alarms; and the object of my invention is to produce a simple device which may be arranged adjacent to a door or other movable portion of the building and which when the door or similar part of the building is opened will automatically close an electric circuit and ring a bell, so as to alarm the inmates of the house.

A further object of my invention is to construct the device and arrange it in connection with the door in such a way that the circuit will be closed only momentarily and will not be closed at all by the closing of the door.

To this end my invention also consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the device as applied to a building. Fig. 2 is a vertical section of the same on the line 2 2 in Fig. 4, showing the circuit-closing arm in its normal position. Fig. 3 is a similar section, but with the arm in position to close the circuit; and Fig. 4 is a vertical section on the line 4 4 in Fig. 2.

The device is provided with a base-plate 10, which is adapted to be secured to the frame 11 of the door 12, and the plate is secured near the swinging portion of the door, so that when the door is opened it will strike the circuit-closing arm, as described below. The base-plate 10 is provided with binding-posts 13 and 14, the post 13 being insulated by means of a suitable washer 15 or its equivalent, and the posts are connected by wires *a* and *a'* with a battery A, the circuit being made to include an electric bell 16, and the bell or a number of connected bells may be arranged in any convenient part of the building.

Projecting outward from the base-plate 10 is a post 17, which is split at its outer end 18, and pivoted in the fork of the post is a swinging circuit-closing arm 19, which extends downward below the lower edge of the base-plate and into the path of the door 12. The arm 19 is normally held in the position shown in Fig. 2—that is, with its lower end extending well inward toward the door by a spring 19^a, which is secured to it and to the base-plate. The upper end 20 of the arm is adapted to engage a contact-spring 22, the free end of which is bent upward, so that when the arm swings beneath it it will readily pass without catching upon the spring. The spring 22 has its fixed end 23 bent into a parallel position with the base-plate 10, and it is fastened to the base-plate by a bolt 24 or its equivalent, the spring being insulated from the base-plate by an insulating-washer 25. The spring 22 is connected with the binding-post 13 by a wire *b*, and consequently the spring forms one terminal of the electric circuit. The swinging arm and the contact-spring are preferably inclosed by a case or box 26, which has flanges 27 to facilitate its attachment to the base-plate, and in the bottom of the case is a slot 28, through which the arm 19 swings.

When the contact-arm 20 touches the spring 22, the circuit is closed and is as follows: From the battery A through the wire *a* and bell 16, the binding-post 13, the wire *b*, the spring 22, the arm 19, the post 17, the base-plate 10, the binding-post 14, and the wire *a'* back to the battery.

As before remarked, the arm 19 is normally held out of engagement with the spring 22 and in the path of the door 12, as shown in Fig. 2, and consequently when the door is opened it strikes the lower end of the arm 19, thus swinging the arm against the resistance of the spring 19^a and causing its upper end to strike against the bend of the spring 22, thus closing the circuit and ringing the bell or bells, as the case may be. After the door has passed the arm the spring 19^a returns it to its normal position, and when the door is closed it will swing the arm away from the contact-spring 22, so as not to close the circuit.

I have shown the device in connection with

the swinging door, to which use it is especially adapted; but it will be seen that it may be used on a window, as the arm 19 and its connected mechanism might be fixed to the window-frame, so as to permit the arm to extend into the path of the window-sash.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

A burglar-alarm comprising the vertical back plate 10, provided on its front face with an outwardly-projecting post 17, an arm 19, pivoted between its ends on said post and projecting below the back plate an insulating-washer 25 on the back plate above the post, a bolt extending therethrough, a spring having an upwardly-projecting apertured arm 23, receiving the said bolt and clamped to the washer by a nut, the spring being curved downward, outward, and upward from its point of attachment over the post and in the path of the upper end 20 of the arm 19, binding-posts secured to the back plate and having insulating-washers, and the electric-circuit connections, substantially as set forth.

HARRY W. REYNOLDS.

Witnesses:
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