May 10, 1927. 1,627,962

J. A. FIEBIGER

CIRCUIT CLOSER

Filed Dec. 16, 1925

Fig. 1.

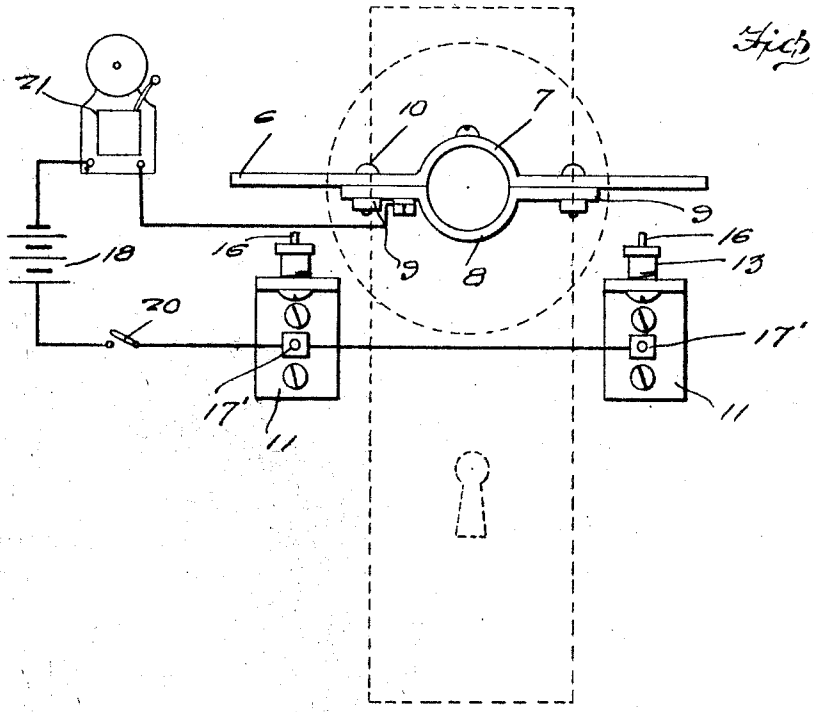


Fig. 2.

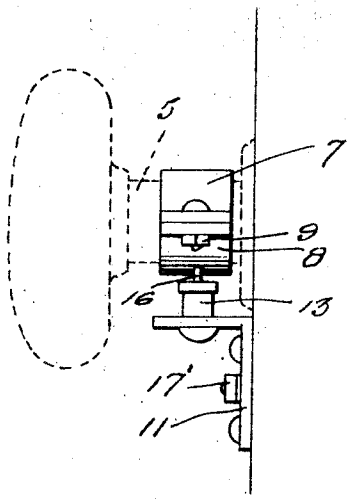
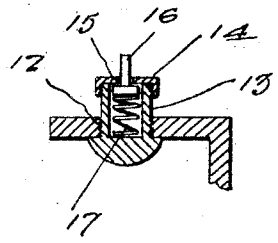


Fig. 3.



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JOSEPH A. FIEBIGER, OF ST. PAUL, MINNESOTA.

CIRCUIT CLOSER.

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This invention relates to alarm mechanisms, and has more particular reference to a means associated with the door and its latch actuating mechanism in order that an alarm will be given whenever said mechanism is operated after a manual control switch within the building has been moved to a closed position.

The primary object of this invention is to provide a relatively simple, but efficient alarm mechanism particularly adapted for installation in dwellings without requiring any great skill on the part of the party installing the alarm. The invention comprises but few parts, and being so co-related when installed as to negative the liability of improper operation of the signal.

With the above and other objects in view as the nature of the invention will be better understood, the same comprises the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing wherein like reference characters indicate corresponding parts throughout the several views:

Figure 1 is a plan view of my improved burglar alarm, installed.

Figure 2 is a side elevation of the latch operating mechanism control switch of the alarm, and

Figure 3 is a slightly enlarged fragmentary section of a contact member and its supporting bracket, which forms an essential part of the present invention.

Now having particular reference to the drawing, 5 indicates the interior end of the usual knob actuated spring latch control shaft for a conventional type of latch mechanism associated with doors in dwellings, and upon which is to be disposed an essential member of the present invention.

My invention per se constitutes the provision of a cross bar-like contact arm 6 that is formed intermediate its ends with an offset semi-circular portion 7, that is adapted to be disposed upon the top surface of the shaft 5, as clearly shown in Figures 1 and 2. For maintaining this contact arm in position upon the latch shaft 5, I provide a clamp plate 8 substantially similar in shape and material to said arm, the same comprising an intermediate semi-circular portion for engagement around the lower surface of the latch shaft 5 and having arms 9—9 at its opposite ends for face to face engagement with the arm 6 at opposite sides of the central portion 7 in order that the same may be interconnected through the medium of bolt and nut connections 10.

My invention further constitutes the provision of a pair of L-shaped brackets 11—11 that are adapted to be suitably secured to the door that carries the latch mechanism directly beneath the opposite ends of the contact arm 6 as clearly shown in Figures 1 and 2. The upper horizontal portion of each bracket is provided with a screw threaded opening 12 within which is threaded from the bottom upwardly a headed metallic thimble 13 that is externally threaded at its upper ends for receiving a closure cap 14 provided centrally with an opening 15. Within each thimble is a headed contact pin 16, the pin portion of which normally projects through the opening 15 through the medium of an expansible spring 17 disposed in said thimble, Figure 3.

Each bracket 11 carries an electrical binding post 17′ in order that the same may be electrically connected with one pole of a storage battery 18 through the medium of suitable wires as in Figure 1. In the line of circuit between the binding post of the brackets and said storage battery a preferred form of switch 20 is provided, in order that the binding post may be readily connected or disconnected electrically from said batteries.

The present alarm further constitutes the provision of a suitable bell or other electrical sound producing means 21, one binding post of which is adapted to be electrically connected to the other pole of the battery 18, as shown, while the other post is adapted to be electrically connected to the contact arm 6 upon the latch shaft 5.

It will thus be seen that when the switch 20 is closed a movement of the shaft 5, through the medium of the knob in either direction will cause one of the contact arm ends to engage first the pin 16 and then the cap 14 of the headed thimble 13 and consequently complete the circuit to the bell 21 for giving the alarm that an unauthorized person is attempting to gain access to the dwelling. The provision of the spring pressed pin 16 will allow the knob to be turned a greater distance after the same has been engaged by one end of the bar 6 in order that a sufficient alarm will be given before the end of the arm strikes a station-

ary member of the complementary bracket contact, even though the knob is quickly released after being brought to an unexpected stop.

It will thus be seen that I have provided a highly novel, simple, and efficient alarm, that is well adapted for all the purposes intended, and even though I have herein shown and described the most preferred embodiment of the invention with which I am at this time familiar, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the appended claim.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:—

A circuit closer of the class described comprising a movable contact arm, an angular bracket supported within the path of movement of said contact arm, one of the leg members of said angular bracket having a threaded opening formed therein, a thimble threaded through the opening, a head formed on one end of the thimble to provide a closure therefor, said head engaging the leg member of the angular bracket in which the threaded opening is formed, a cap threaded on the open end of the thimble, a headed contact pin arranged within the thimble, the shank portion of said contact pin extending through the cap and adapted for cooperation with the movable contact arm, and an expansible coil spring arranged within the thimble and cooperating with the head of the contact pin for normally urging the same outwardly.

In testimony whereof I affix my signature.

JOSEPH A. FIEBIGER.