(No Model.)

H. C. SHUBERT.

ELECTRIC BURGLAR ALARM.

No. 429,817. Patented June 10, 1890.

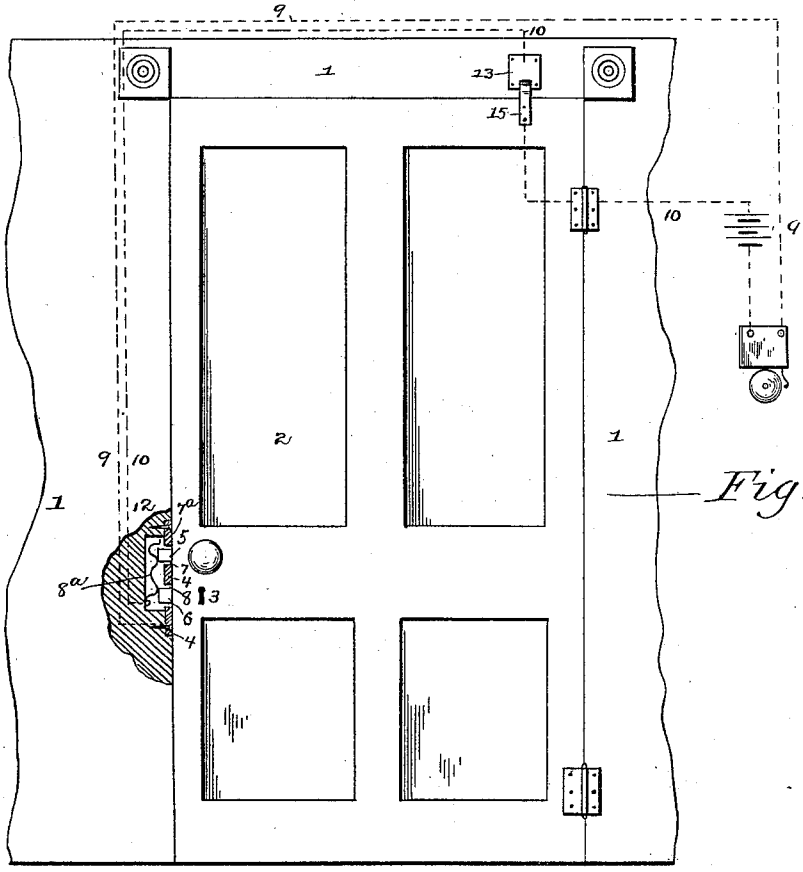


Fig. 1.

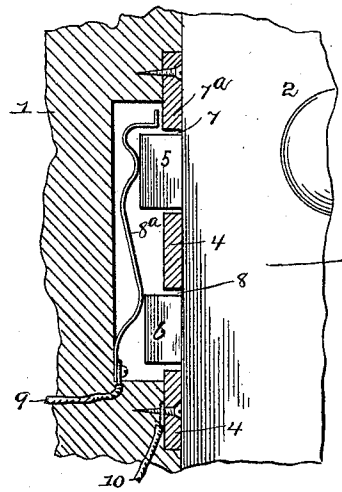


Fig. 2.

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

UNITED STATES PATENT OFFICE.

HAROLD C. SHUBERT, OF CHICAGO, ILLINOIS, ASSIGNOR TO LOUIS K. CURLETT AND JAMES ROSE, OF SAME PLACE.

ELECTRIC BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 429,817, dated June 10, 1890.

Application filed March 8, 1890. Serial No. 343,201. (No model.)

To all whom it may concern:

Be it known that I, HAROLD C. SHUBERT, a citizen of the United States, residing at the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric-Bell Alarms; and I hereby declare the following to be a full, clear, and exact description of my invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings and the figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of alarms which are adapted to sound upon the turning of the knob in opening a door; and it consists in certain features hereinafter described, and pointed out in the claim, the object of the same being to make easy the application of such alarms to doors without alteration of any of the usual parts of the lock or keeper.

In the drawings, Figure 1 represents a general view of a door-frame and door with my electric alarm attached, parts being broken away to show the arrangement of certain internal parts; and Fig. 2 represents a detail view, on an enlarged scale, of keeper and lock, the keeper being in section.

Like figures of reference are applied to the same parts in each view.

Referring to the drawings, 1 represents the door-frame, and 2 the door hinged thereon in the usual manner.

3 is the lock, and 4 the keeper. The lock has the usual knob-latch 5 and key-bolt 6, herein shown as projecting into the keeper, which consists of a mortise in the door-frame and of a plate secured to the frame over the mortise, and provided with openings 7 and 8 for the reception of the knob-latch and key-bolt.

Ordinarily in mortising the door-frame two distinct mortises are made—one for the key-bolt and one for the knob-latch; but in mortising preparatory to the introduction of my alarm I make but one mortise, and this is of sufficient length to extend from a little above the upper edge of the latch-opening of the keeper to the bottom of the bolt-opening, thus leaving a shoulder 7^a inside the keeper just above the latch-opening. Against this shoulder normally bears a spring 8^a, secured to the interior of the mortise in any convenient manner. This spring and keeper are connected to an electric circuit, in which is interposed an alarm adapted to strike or operate whenever the circuit is completed. The spring lies directly in the path of the latch or bolt, so that when the door is closed or locked the spring is pushed away from the keeper—that is, from shoulder 7^a, formed thereby—and the circuit broken. On the contrary, when the door is opened the spring by virtue of its own resiliency resumes its normal condition of contact with the shoulder of the keeper, thereby re-establishing the circuit and ringing the alarm. The wires 9 and 10 leading to and from the battery, alarm, and circuit-closing device 12 of the door above described, constitute a circuit which is to be automatically broken when the door is opened, one part of the device for this purpose being a plate 13, secured to the frame, and the other a spring 15 being secured to the door, and both being properly connected to the wires of the circuit. It will thus be seen that when the door is opened the circuit will be closed and the alarm sounded, and that the ringing of the alarm will not be continuous, but will cease as soon as the door is sufficiently wide open to withdraw the spring 15 from the plate 13 on the frame.

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

The combination of a door-frame and door, a keeper on the frame and a lock on the door, an electric circuit including an alarm, a spring in the keeper connected to the wires of the circuit, a metallic shoulder on the keeper, also connected to the wires of the circuit, and an automatic circuit-breaker consisting of a metallic plate on the frame interposed in the circuit, and a coincident metallic spring on the door, also interposed in the circuit, substantially as described.

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

HAROLD C. SHUBERT.

Witnesses:

ARTHUR HUMPHREY,

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