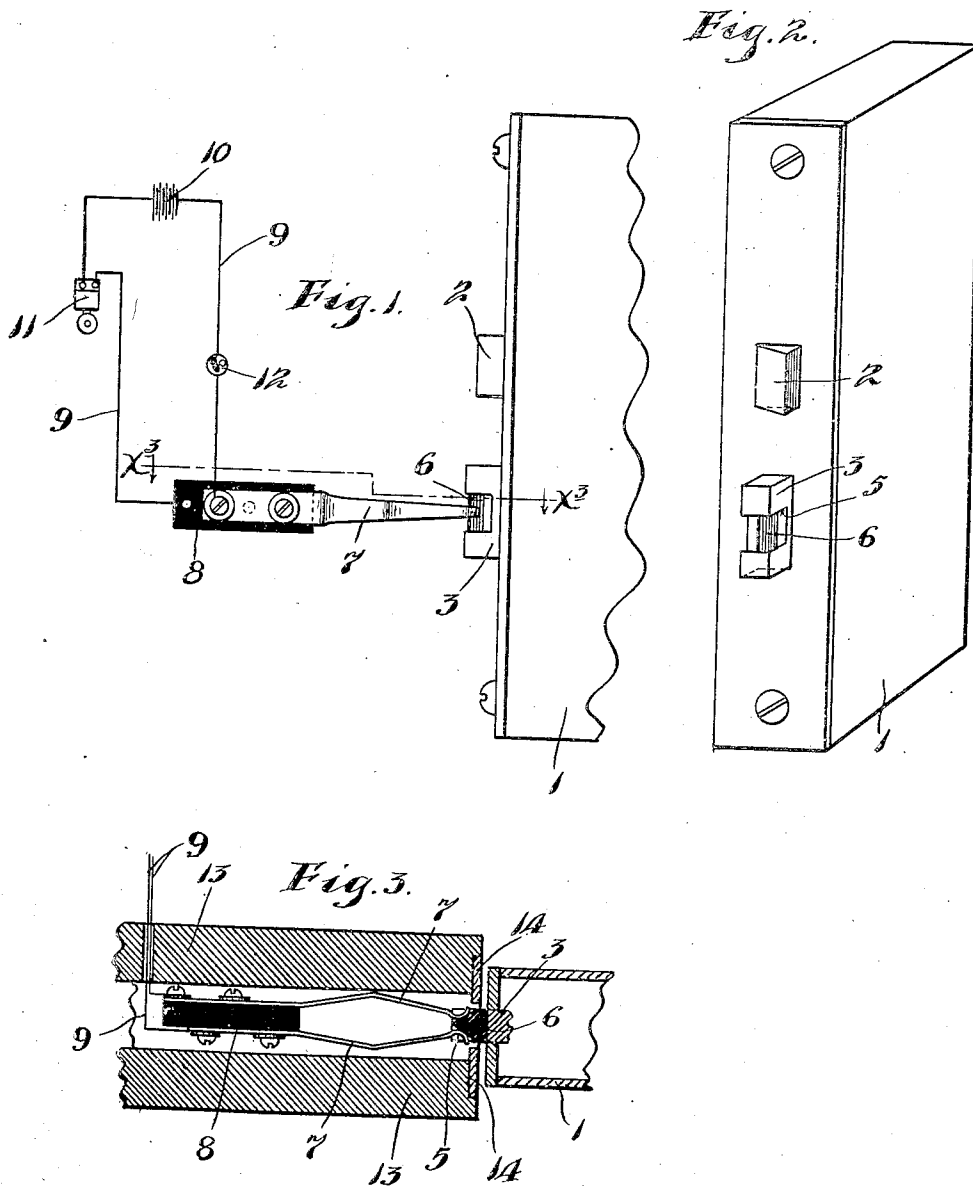


G. H. LUCIER.
BURGLAR ALARM.
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1,030,196.

Patented June 18, 1912.



Witnesses.
H. L. Opsahl.
Geo. Knutson

Inventor.
George H. Lucier.
By his Attorneys,
William M. McLean

UNITED STATES PATENT OFFICE.

GEORGE H. LUCIER, OF ST. PAUL, MINNESOTA.

BURGLAR-ALARM.

1,030,196.

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To all whom it may concern:

Be it known that I, GEORGE H. LUCIER, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Burglar-Alarms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide a simple and efficient burglar alarm adapted to be thrown into action whenever the lock bolt of the door lock is moved from its locking position into its inoperative or retracted position.

To the above ends, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view partly in full and partly in diagram illustrating the invention; Fig. 2 is a perspective view showing the lock, the lock bolt thereof being constructed in accordance with my invention; and Fig. 3 is a horizontal section with some parts broken away, taken on the line $x^3 x^3$ of Fig. 1, in respect to the parts therein shown, but showing also parts of the door frame.

The numeral 1 indicates the case, the numeral 2 the latch piece and the numeral 3 the lock bolt of the door lock. In accordance with my invention, the lock bolt 3 is notched or cut away at 5 and provided in the said notch with a wedge shaped block 6 of vulcanized rubber, wood fiber, or other suitable insulating or non-conducting material.

For coöperation with the insulating wedge 6, I provide a pair of spring contacts 7 secured to and separated by an insulating block 8. The spring tension of these contacts 7 is such that, normally, their curved free ends will be pressed together. The contacts 7 constitute part of an electrical circuit 9 in which is interposed a battery or source of electrical energy 10, an electric bell or electrical applied alarm device 11, and a cut-out switch 12. The bell or alarm device 11 may be located at any suitable point, but preferably, at a point quite remote from the door, for instance, it may be located in the sleeping apartment of the occupant of the house, to the door of which, the alarm device is applied. The spring contacts 7 are supported in a suitable recess of a door frame 13 with their curved free ends so located in respect to the lock plate 14, that they will be engaged and separated by the insulated wedge 6, whenever the lock bolt 3 is moved into a locking position, to wit, into the customary recess provided therefor, in the lock plate 14.

The operation of the alarm is substantially as follows: When the switch 12 is closed and the lock bolt is set into its locking position shown in Fig. 3, the circuit of the bell or alarm device 11 will be broken only at the point between the free ends of the contacts 7. When, however, the lock bolt 3 is retracted, as is necessary to open the door, the contacts 7 will spring into engagement and thereby close the alarm circuit and cause the alarm device to be sounded or operated. The alarm device may, however, be thrown out of action so that it will not be operative during the day, or at any other time when the alarm device is not required, simply by opening the switch 12.

What I claim is:

1. The combination with a lock having a lock bolt equipped with an insulating block, said insulating block adapted to be moved into and out of said lock, of an alarm circuit including a pair of spring contacts normally pressed together but adapted to be separated by engagement with the insulating block on said lock bolt, said pair of spring contacts being secured to the door frame, substantially as described.

2. The combination with a door lock having a lock bolt equipped with a wedge-shaped insulating block, said insulating block adapted to be moved into and out of said door lock, of an alarm circuit comprising a pair of spring contacts normally

sprung into contact at their free ends but adapted to be separated by engagement with the wedge-shaped insulating block of said lock bolt, when said lock bolt is moved
5 into an operative position, said pair of spring contacts being secured to the door frame, substantially as described.

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

GEORGE H. LUCIER.

Witnesses:

HARRY D. KILGORE,
HARRIET A. CREW.