(No Model.)

T. S. PATTY.

ELECTRIC BURGLAR ALARM.

No. 507,925. Patented Oct. 31, 1893.

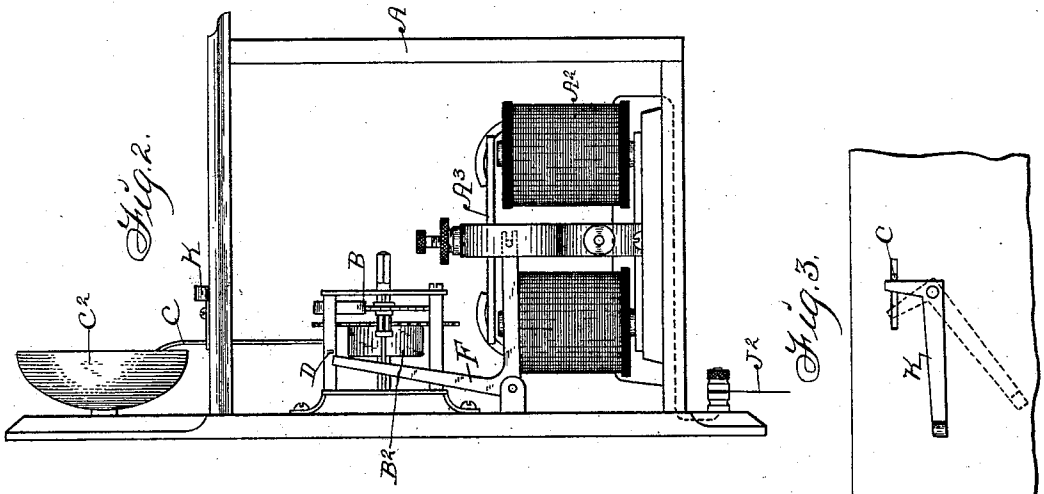

Fig. 2.

Fig. 3.

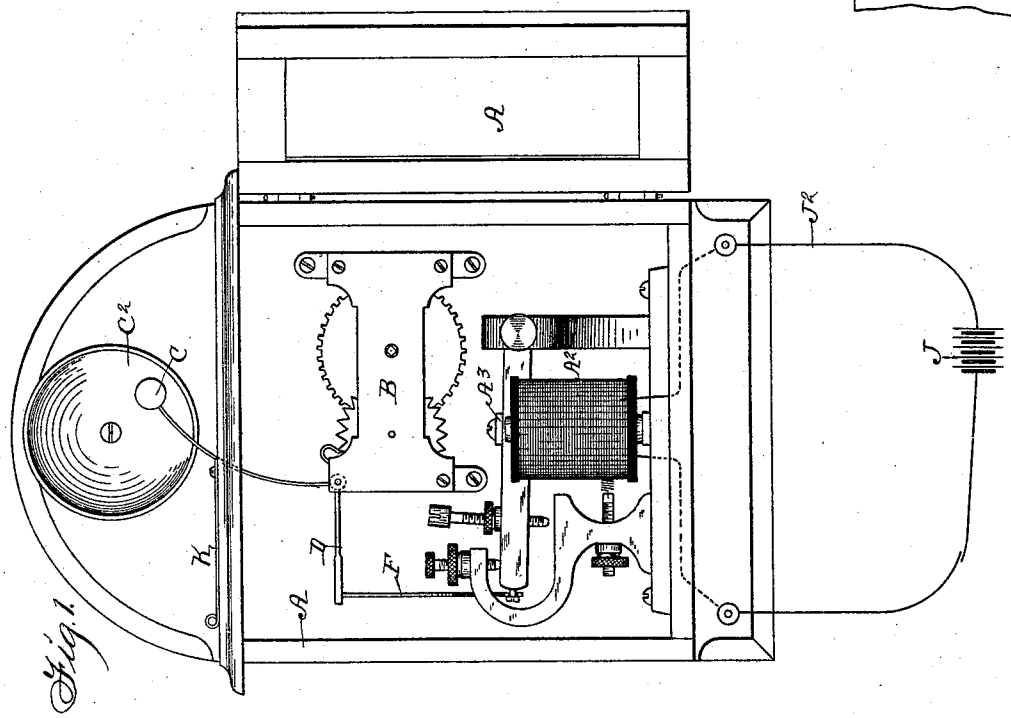

Fig. 1.

Witnesses:
W. J. Saukey.
J. Ralph Orwig.

Inventor: Thomas S. Patty
By Thomas G. Orwig, Attorney.

UNITED STATES PATENT OFFICE.

THOMAS S. PATTY, OF COOPER, IOWA.

ELECTRIC BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 507,925, dated October 31, 1893.

Application filed January 26, 1893. Serial No. 459,915. (No model.)

To all whom it may concern:

Be it known that I, THOMAS S. PATTY, a citizen of the United States of America, residing at Cooper, in the county of Green and State of Iowa, have invented an Improved Electric Burglar-Alarm, of which the following is a specification.

The object of my invention is, primarily, to provide simple, durable and positively operating mechanism, to operate an alarm bell upon the breaking of an electric current, in contradistinction to completing a circuit, so that an alarm is given if the circuit is broken in any manner, such for instance as the cutting of the wires.

To this end my invention consists in details of arrangement and combination of the various common elements comprising the device, as hereinafter fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the complete device inclosed in a suitable case. Fig. 2 is a side view of the same with a portion of the case removed to show the operative mechanism and Fig. 3 is an enlarged detail view of the switch for holding the bell clapper.

Referring to the accompanying drawings the reference letter A is used to designate a suitable box or casing for inclosing the operative mechanism of the device.

A^2 designates an electro magnet fixed to the interior and bottom of said box and A^3 an armature pivotally attached to a suitable support and normally held adjacent to the poles of said electro magnet A^2 by yielding pressure devices so as to be attracted to said magnet by means of an electric current passed through said electro magnet.

B designates clock work mechanism on the interior of the said casing A and containing a spring B^2 in which power may be stored to operate a bell clapper C, which is connected with said mechanism and extended through the top of the casing A, into proximity to a bell C^2, and D designates a trigger connected with the clock work mechanism B and so arranged that when it is released the bell clapper will be vibrated.

F designates a bell crank lever pivoted to a suitable support, having its one end pivotally connected with the armature A^3 and its other end arranged to support the trigger D when the armature A^3 is in engagement with the magnet A^2, but release the same when the said armature is out of engagement with its magnet.

J designates an electric battery in the circuit J^2.

The practical operation of my device is as follows:—The box A is located in any suitable position, a metallic conductor connected with the magnet A^2 and extended to contact closers placed in various doors, windows, &c., and then returned to the magnet. A closed circuit battery is then included in the circuit. It will now be seen that if all of the doors, windows, &c., are in a closed position, a continuity of electrical conductors will be provided throughout the entire circuit which will cause the magnet A^2 to hold its armature A^3, and if said circuit be broken at any point either by the opening of one of the doors, windows, &c., or the cutting of a wire the magnet will release its armature and the alarm bell will be rung.

A detent K pivotally attached to the top of the casing A and adapted to be brought into engagement with the bell clapper C provides means whereby the bell may be prevented from ringing when the circuit is broken. This is preferably normally held in engagement with the bell clapper so that if it is desirable at any time to ascertain if the circuit is complete, and all the doors and windows closed, the said switch may be opened, which will allow the clapper C to vibrate if said circuit is open at any point.

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

1. In a burglar alarm the following elements in combination, to wit: an electro-magnet, a suitable source of electrical supply in circuit therewith, spring actuated clock work mechanism having a trigger connected therewith, the releasing of which sets said clock work mechanism in motion, a suitable bell or clapper connected with said clock work mechanism and adapted to engage said bell, an armature pivotally connected with a suitable support and adapted to be attracted to said magnet

upon the completion of an electric current therethrough, a bell crank lever pivotally attached to a suitable support, and having its one end pivotally attached to the end of the aforesaid armature, and its other end adapted to be brought under the aforesaid trigger to support it when the armature is in engagement with its magnet and release said trigger when the armature is released from its magnet for the purposes stated.

2. An improved burglar alarm comprising the following elements in combination, to wit: a suitable inclosing case, an electro magnet fixed to the bottom of the said case, an armature pivoted to a suitable support and adapted to be brought in contact with said magnet upon the completion of an electric current therethrough, a suitable source of electrical supply connected with said magnet and one or more contact breakers included in said circuit, spring actuated clock work mechanism fixed to the back of said case as set forth, a bell clapper connected therewith to be vibrated thereby and extended through the top of said case, a bell in proximity thereto, a trigger connected with said clock work mechanism as set forth, a bell crank lever pivoted to a suitable support fixed to the back of said case, and having its one end pivotally attached to the end of the aforesaid armature and its other end adapted to support the aforesaid trigger and a switch pivoted to the top of case to engage the said bell clapper and retain it inoperative, all arranged and combined substantially in the manner set forth for the purposes stated.

THOMAS S. PATTY.

Witnesses:
C. E. MILLER,
B. H. ELLIOTT.