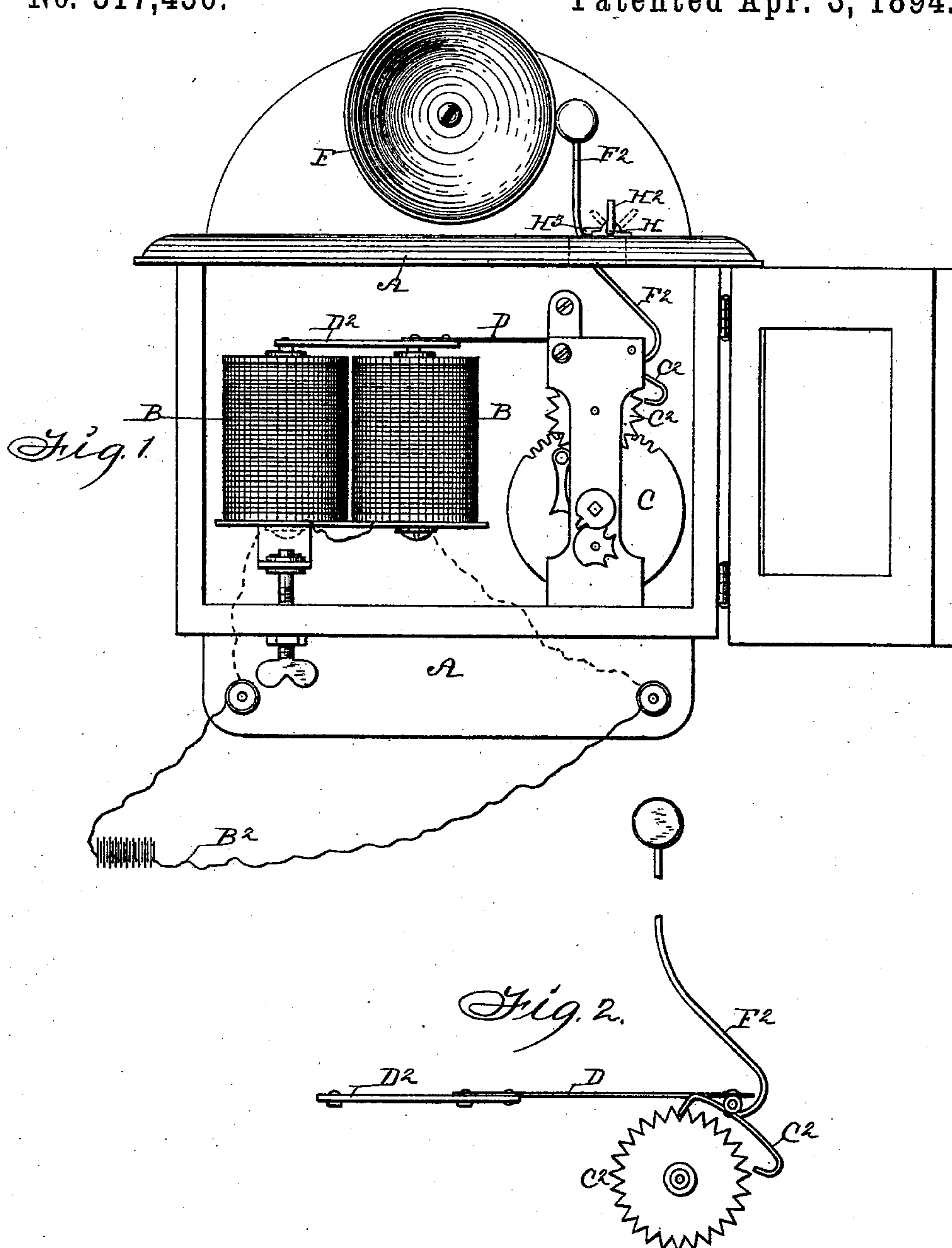


(No Model.)

J. FRAME & R. B. MORDEN.
ELECTRIC BURGLAR ALARM.

No. 517,450.

Patented Apr. 3, 1894.



Witnesses:
R. H. Orwig,
C. F. Mulcock.

Inventors: John Frame
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UNITED STATES PATENT OFFICE.

JOHN FRAME AND ROBERT B. MORDEN, OF COOPER, IOWA.

ELECTRIC BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 517,450, dated April 3, 1894.

Application filed December 26, 1893. Serial No. 494,810. (No model.)

To all whom it may concern:

Be it known that we, JOHN FRAME and ROBERT B. MORDEN, citizens 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.

Our invention relates to that class of burglar alarms in which an electric circuit is employed to hold a strip of metal to an electro-magnet, the release of which sets in motion a mechanically operated alarm, and consists in certain details of construction of the mechanism for connecting the electro-magnet with the mechanism for actuating the alarm, as hereinafter set forth, pointed out in our claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a view of the complete burglar alarm. Fig. 2 is a detail view of the devices for controlling the clock work mechanism by means of the electro magnet.

Referring to the accompanying drawings, the reference letter A is used to designate the inclosing box of the device, B an electro-magnet included in the circuit B².

C designates suitable spring-actuated clock-work mechanism arranged within the said box and provided with an escapement C² of the usual kind. A leaf spring D is fixed to the same arbor as the detent of the escapement and fixed to the outer end is a flat piece of metal D³ in position to be attracted by the electro-magnet B.

F designates a bell placed above the clock work mechanism and F² a bell clapper fixed to the same arbor as the detent of the escapement and adapted to strike said bell when operated. Mechanism is provided for holding the bell inoperative when the current is broken purposely as follows.

H designates a rock shaft mounted in suitable bearings on the top of the box A, and provided with a handle H² bent at right angles and a part H³ also bent to engage the clapper and prevent the same from moving backwardly sufficiently to allow the escapement to operate.

In practical operation the strip of metal D³ is normally held in contact with the electro-magnet and the device for holding the clapper inoperative, thrown out of contact with the clapper. Then when the current is broken at any point, as for instance, by the opening of a door or window provided with contact plates normally connected when the door or window is closed, the strip of metal will be released and the clock work mechanism actuated to strike an alarm.

Having thus described our invention, what we claim as new therein, and desire to secure by Letters Patent of the United States therefor, is—

1. An electric burglar alarm, comprising the following elements, to wit: a suitable casing, an electro-magnet in said casing, an electric circuit having said magnet included therein, suitable spring-actuated clock-work mechanism, alarm mechanism connected with the escapement of the clock work mechanism to be operated thereby, a leaf spring connected with the said escapement and a piece of flat metal connected with said leaf spring and adapted to be attracted by the electro magnet, substantially in the manner set forth, for the purposes stated.

2. An electric burglar alarm comprising the following elements in combination, to wit; a suitable casing, an electro-magnet in said casing, an electric circuit having said magnet included therein, suitable spring-actuated clock-work mechanism, a bell clapper connected with the same arbor as the detent of the escapement thereof, a leaf spring connected with said arbor, a flat metal strip connected with said leaf spring and adapted to be attracted by said electro magnet, a bell in position to be engaged by said clapper and means for holding the clapper inoperative, all arranged and combined substantially as and for the purposes stated.

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Witnesses:

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