

J. JONES, JR.

BURGLAR ALARM.

APPLICATION FILED APR. 16, 1913.

1,146,883.

Patented July 20, 1915.

3 SHEETS—SHEET 1.

Fig. 1.

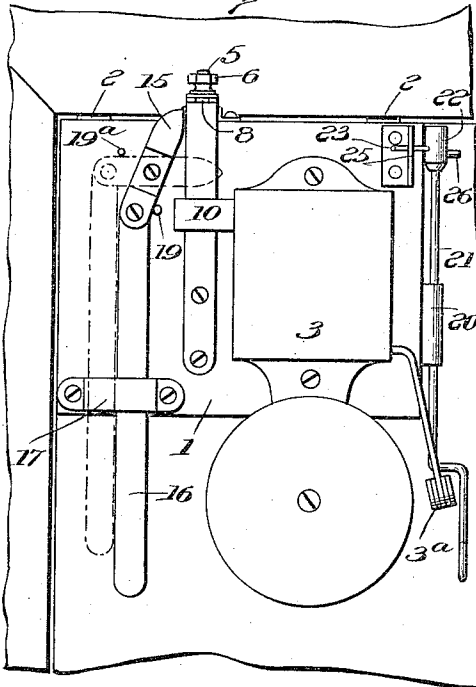


Fig. 2.

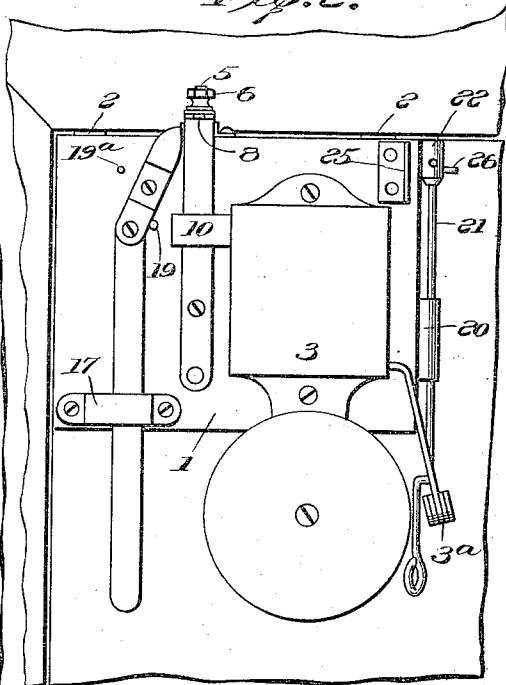


Fig. 3.

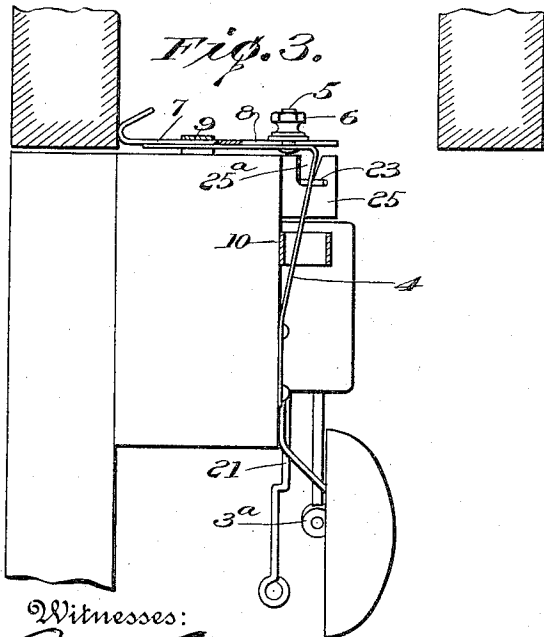
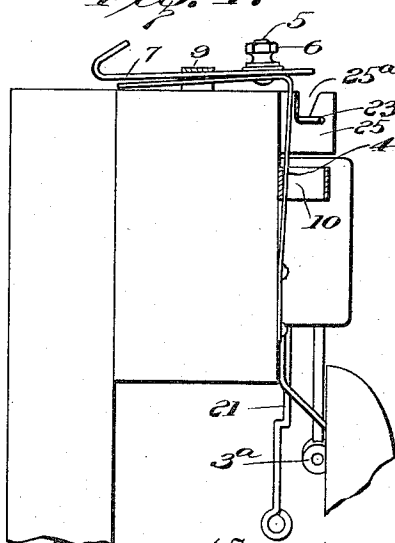


Fig. 4.



Witnesses:

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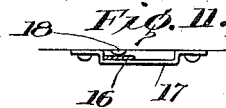
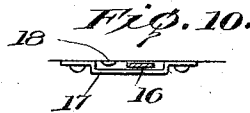
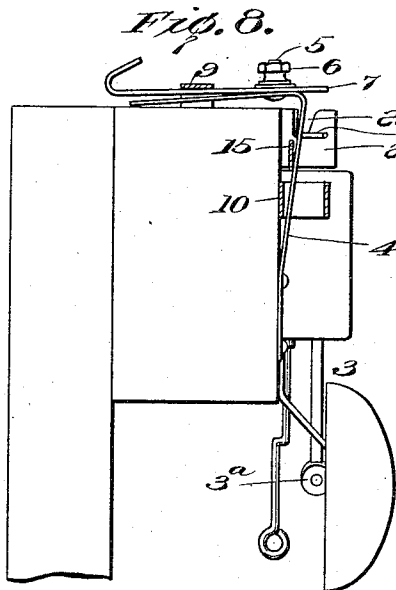
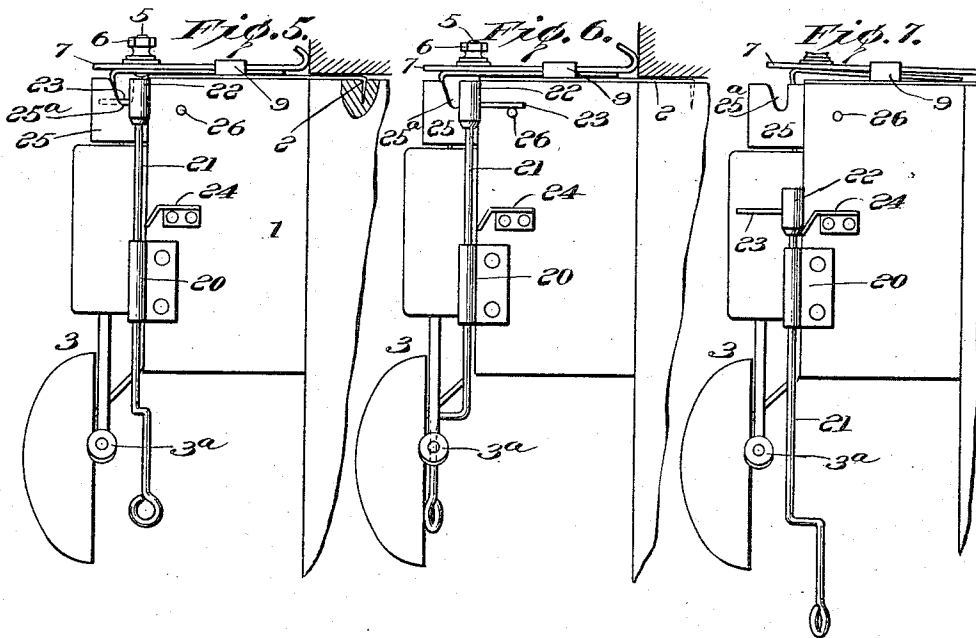
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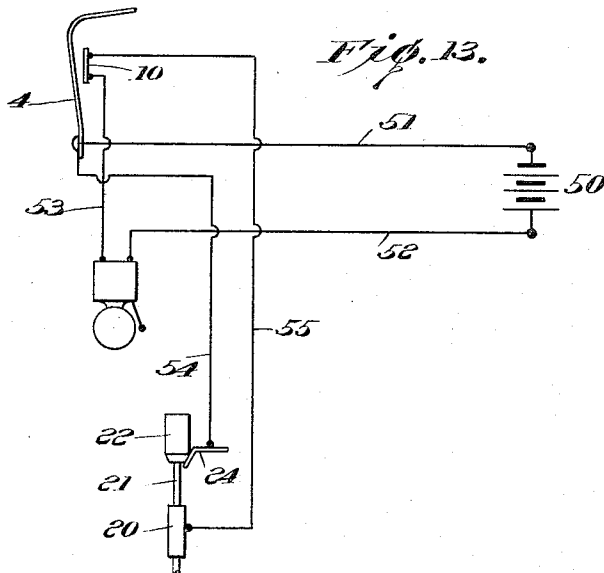
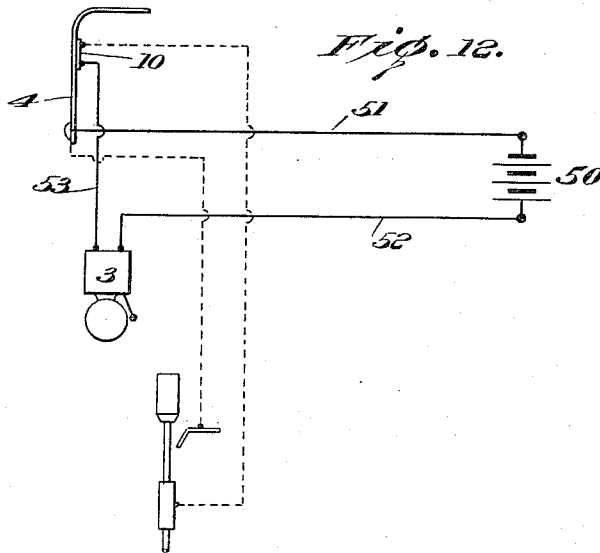
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3 SHEETS—SHEET 3.



Witnesses:  
*Alan Franklin.*  
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# UNITED STATES PATENT OFFICE.

JAMES JONES, JR., OF NEW YORK, N. Y.

## BURGLAR-ALARM.

1,146,883.

Specification of Letters Patent.

Patented July 20, 1915.

Application filed April 16, 1913. Serial No. 761,648.

*To all whom it may concern:*

Be it known that I, JAMES JONES, Jr., of the city of New York, in the county of Kings and State of New York, 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 is an alarm particularly adapted to be used as a burglar alarm but may, however, be used for other purposes.

The object of my invention is to provide a simple and inexpensive device of improved construction, which will be highly efficient in operation.

In the drawings Figure 1 is a front elevation of a device embodying my invention, showing it applied to a door and set so that the alarm will be sounded upon opening the door and shut off as soon as the door is closed. Fig. 2 is a view similar to Fig. 1 showing the device set for a burglar so that if the door be opened the alarm will be sounded continuously. Fig. 3 is a view illustrating the position of the primary circuit controlling element when the door is closed and the alarm circuit is open. Fig. 4 is a view illustrating the position of the primary circuit controlling element when the door is open and the alarm circuit is closed. Fig. 5 is a side elevation with the secondary circuit controlling element shown held inoperative and corresponding to the position in which it is shown in Fig. 1. Fig. 6 is a view similar to Fig. 5 but with the secondary circuit controlling element set so that it will close the secondary circuit when the primary circuit is closed. Fig. 7 is a view similar to Figs. 5 and 6 but with the secondary circuit controlling element shown closing its circuit. Fig. 8 is a view illustrating the primary circuit closing element held inoperative. Figs. 9, 10 and 11 are views of details of the structure of the device. Figs. 12 and 13 are diagrammatic views illustrating the alarm circuits.

Referring to the drawings 1 designates a box adapted to be secured to a door at the top of the latter by means of hooks 2 with which the box is equipped. This box con-

tains a battery and carries a suitable alarm such as a bell 3.

The primary circuit controlling element is constructed as follows:—Secured to the box 1 is a spring contact member 4 to which is secured, by means of screw 5 and nut 6, a presser foot 7 adapted to engage the door frame when the door is closed. The presser foot 7 is slotted at 8 to receive the screw 5 so that the presser foot may be adjusted with relation to the spring 4 and secured in the desired position by the nut 6. A guide member 9 is provided for the presser foot 7 to maintain it in its working position. A contact member 10 is located in the path of movement of the spring member 4 and is adapted to be engaged by the member 4 when the door is opened to close the primary circuit of the device and to be disengaged therefrom when the door is closed to break the circuit.

The primary circuit controlling element may be maintained in inoperative position by means of a cam 15 which is adapted to engage the spring contact member 4 and withdraw and hold it away from the contact member 10. A handle 16 connected to the cam 15 may be gripped to swing the cam into or out of engagement with the spring contact 4. A guide 17 secured to the box 1 is provided for the handle 16. A friction element 18 is located within the guide 17 between which and the guide the handle 16 is gripped to hold the cam 15 securely in engagement with the spring contact 4. Pins 19 and 19<sup>a</sup> are provided to limit the movement of the cam 15.

The secondary circuit controlling element is as follows:—Slidably mounted in a bearing 20 secured to the box 1 is a rod 21 provided with a weight and contact member 22 and a pin 23 at its upper end. The lower portion of the rod 21 is bent in the form of a crank and is looped at its extremity so that it may be gripped by the hand and set in the desired position. A contact 24 secured to the box 1 rests in the path of movement of the weight and contact member 22 and is adapted to be engaged by said member, when the rod drops under the influence of the weight of member 22 to close the bell circuit permanently. A bracket 25 secured to the

upper part of the box 1 is provided with a notch 25<sup>a</sup> adapted to receive the pin 23 to maintain the secondary circuit controlling element inoperative. On the box 1 is located  
 5 a lug 26 upon which the pin 23 is adapted to rest when the above described circuit controlling element is set to be brought into action to close the secondary circuit upon the entrance of a person through the door.

10 The wiring of the device is shown in the diagrammatic views Figs. 12 and 13. Fig. 12 shows in full lines the primary circuit while Fig. 13 shows the secondary circuit. The primary circuit starts from the battery  
 15 50 leads through wire 51 to contact 4; from contact 4 to contact 10; from contact 10 through wire 53 to bell; and thence completes the circuit to battery through wire 52.

20 The secondary and permanent circuit starts from the battery 50, leads to contact 4 through conductor 51; from contact 4 to contact 24 through wire 54; from contact 24 through contact and wire 55 to contact 10; from contact 10 to bell through wire 53  
 25 and from the bell completes the circuit to battery through wire 52.

The operation is as follows:—When it is desired to have the alarm sound on opening the door and only so long as the door re-  
 30 mains open, the parts of the device are put in the positions shown in Figs. 1 and 5 of the drawings. In this position the presser foot 7 engages the door frame when the door is closed as shown in Fig. 3, presses the  
 35 spring contact 4 away from the contact 10 and breaks the primary circuit. When the door is opened the contact 4 springs into engagement with the contact 10, closes the circuit and sounds the alarm by ringing the  
 40 bell 3 as shown in Fig. 12 of the drawing. The bell will continue ringing so long as the door is open but will stop as soon as the door is closed and the spring contact 4 is pressed out of engagement with contact 10 by the  
 45 engagement of the presser foot 7 with the door frame. When it is desired to have the alarm sound as the door is opened and to continue sounding whether the door is after-  
 50 ward closed or not, assuming the parts to be in the positions shown in Figs. 1 and 5, the rod 21 is first lifted until the pin 23 leaves the notch 25<sup>a</sup> in bracket 25; the rod is turned in the bearing 20 until the pin 23 is over lug  
 55 26; and the rod is then lowered until the pin 23 rests upon the lug 26, in which position the lower crank portion of the rod 21 rests directly in the path of movement of the bell hammer 3<sup>a</sup>. When the door is opened and the primary circuit is closed, the bell ham-  
 60 mer 3<sup>a</sup> strikes the lower crank portion of the rod 21 and rotates the rod so that the pin 23 disengages the lug 26 whereupon the rod drops under the influence of the weight of member 22 until said member engages the  
 65 contact 24 and closes the secondary circuit,

as shown in Fig. 13. In this condition of the device the alarm will sound continuously whether or not the door is closed and whether the primary circuit is broken or closed.

I claim as my invention:—

1. An electric alarm comprising a primary alarm circuit, a secondary circuit also adapted to sound the alarm, means for main-  
 75 taining said secondary circuit inoperative while said primary circuit is operative, means for rendering said secondary circuit operative, and means actuated by said primary circuit for closing said secondary cir-  
 80 cuit to sound the alarm when the secondary circuit is in operative position.

2. An electric alarm comprising a primary circuit, a circuit controlling element therefor, a secondary circuit, a circuit con-  
 85 trolling element therefor, means for maintaining said secondary circuit controlling element inoperative while said primary circuit controlling element is operative, means for rendering said secondary circuit controlling element operative, and a bell initially  
 90 operated by said primary circuit and adapted to trip said secondary circuit controlling element to close said secondary circuit and cause the bell to ring continuously.

3. An electric alarm comprising a pri-  
 95 mary circuit, a circuit controlling element therefor, a bell initially actuated by said primary circuit, a secondary circuit, a circuit controlling element therefor comprising a pair of contacts; a gravitating rod on  
 100 which one of said contacts is carried, a support for said rod on which it may rest to maintain said secondary circuit open, said rod being adapted to be engaged by the bell hammer to bring said contacts into engage-  
 105 ment to close the secondary circuit and ring the bell continuously and means for rendering said bell hammer ineffective to close said secondary circuit.

4. An electric alarm comprising a pri-  
 110 mary circuit, a circuit controlling element therefor, a bell initially actuated by said primary circuit, a secondary circuit, a circuit controlling element therefor comprising a pair of contacts, a rod carrying one of said  
 115 contacts, a bearing in which said rod is slidably and rotatably mounted, means for holding said contacts out of engagement with each other before the primary circuit is  
 120 closed, said rod being bent to rest in the path of movement of the bell hammer when said contacts are out of engagement, whereby when struck by said hammer the rod will be rotated and released and said contacts will be brought into engagement with each other  
 125 to close the secondary circuit to ring the bell continuously.

5. An electric alarm comprising a primary circuit, a circuit controlling element therefor, a bell initially actuated by said  
 130

primary circuit, a secondary circuit, a circuit controlling element therefor comprising a pair of contacts, a slidably and rotatably mounted rod carrying one of said contacts, 5 a pin on said rod, a bracket, said pin adapted to engage said bracket to maintain said contacts permanently out of engagement with each other, a lug against which said pin is adapted to rest to hold said contacts out of 10 engagement with each other before the primary circuit is closed, said rod being bent at its lower end in the form of a crank to rest in the path of movement of the bell hammer

to be struck by the bell hammer when the primary circuit is closed and rotated to dis- 15 engage said pin from said lug and permit said rod to drop to bring said contacts into engagement with each other to close the secondary circuit to ring the bell continuously.

In testimony whereof, I have signed this 20 specification in the presence of two subscribing witnesses.

JAS. JONES, JR.

Witnesses:

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MARION I. BALFOUR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."