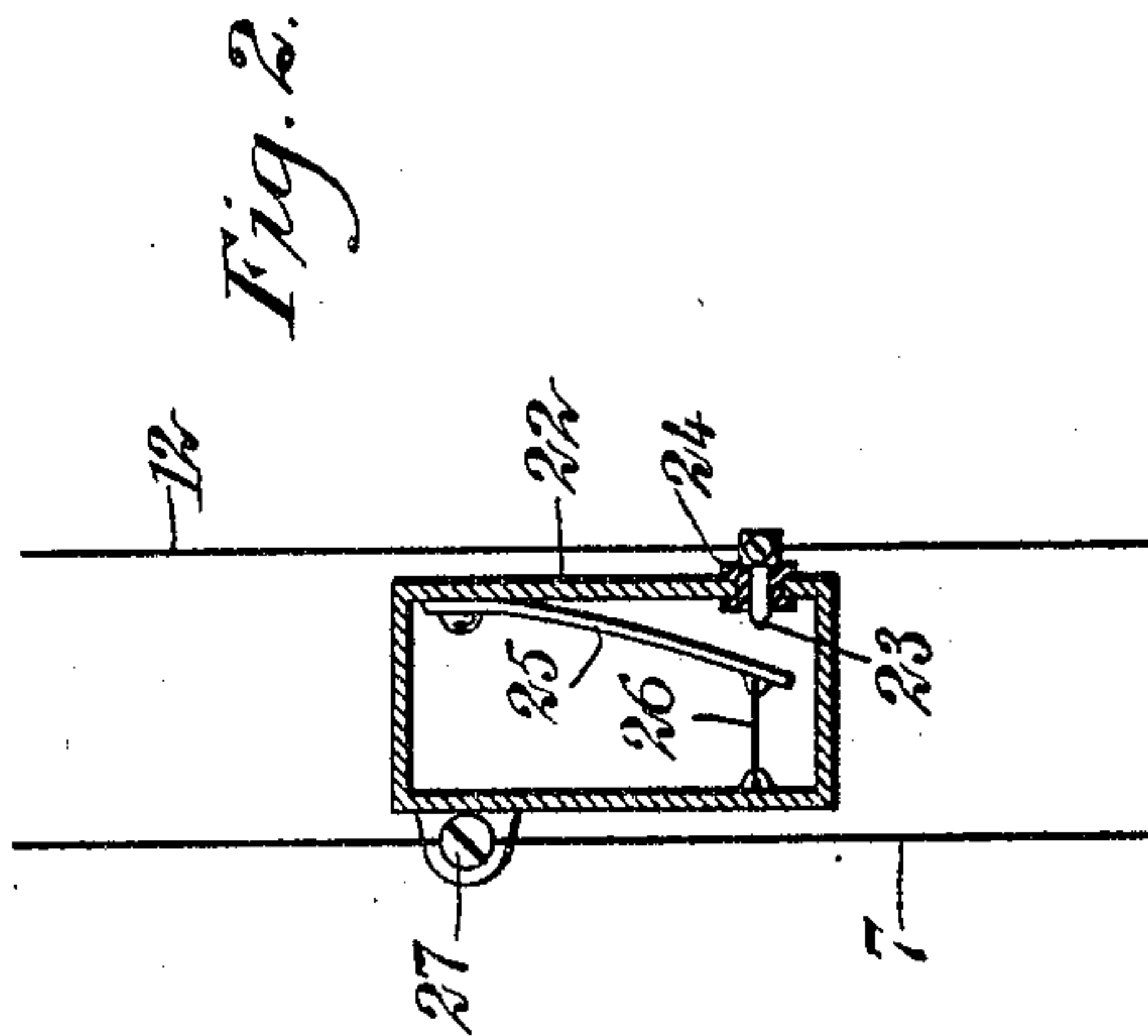
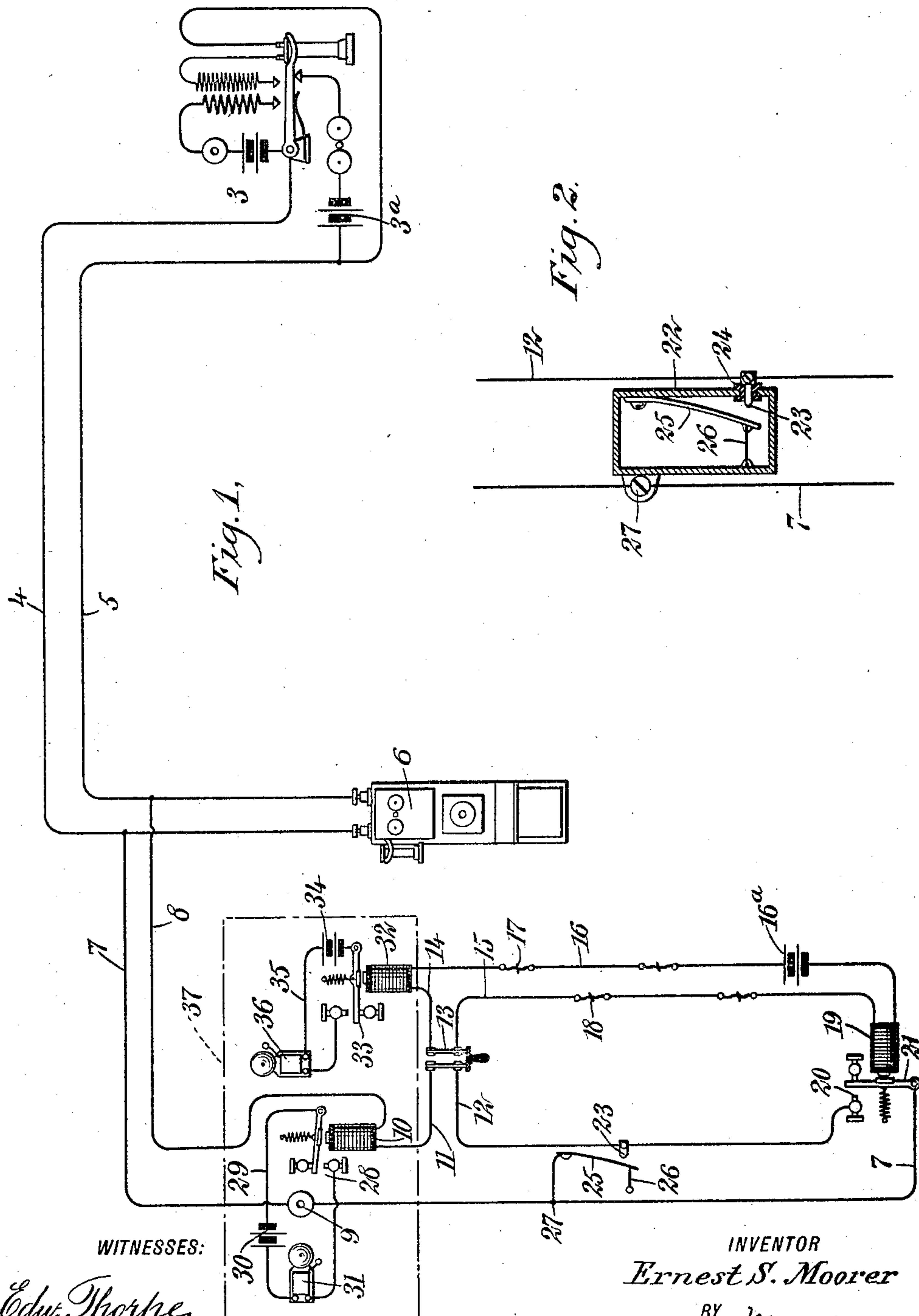


No. 837,097.

PATENTED NOV. 27, 1906.

E. S. MOORER.  
ELECTRIC ALARM.

APPLICATION FILED SEPT. 16, 1905.



**WITNESSES:**

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BY *mmmm*

**ATTORNEYS**



# UNITED STATES PATENT OFFICE.

ERNEST SAMUEL MOORER, OF ANDERSON, SOUTH CAROLINA.

## ELECTRIC ALARM.

No. 837,097.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed September 16, 1905. Serial No. 278,739.

*To all whom it may concern:*

Be it known that I, ERNEST SAMUEL MOORER, a citizen of the United States, and a resident of Anderson, in the county of Anderson and State of South Carolina, have invented a new and Improved Electric Alarm, of which the following is a full, clear, and exact description.

My invention relates to electric alarms and admits of general use, but is of peculiar value in instances where it is desired for the alarm to be automatic in its action, so as to indicate the change in condition of an electric circuit due to the movements of a burglar, the presence of a fire, or the like.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a diagrammatic elevation showing my system ready for use; and Fig. 2 is a sectional detail, enlarged, showing the contact-spring 25 and fuse 26 for temporarily restraining the same.

A central station 3, provided with a battery 3<sup>a</sup>, is connected with wires 4 5, which may be ordinary telephone-wires. A subscriber's telephone is shown at 6 and is connected directly with the wires 4 5. Branch wires 7 8 are connected in parallel with the wires 4 5, the wire 7 being provided with a transmitter 9 and the wire 8 leading to a relay 10. From this relay a wire 11 connects with a wire 12 through a hand-switch 13. Wires 14 15 are also connected with this switch. Disposed adjacent to the wire 15 is a wire 16, provided with contacts 17 of the kind generally employed upon burglar-alarms and adapted to be opened and closed by the movements of doors, windows, or the like. Similar contacts 18 are connected with the wires 15. A relay 19 is connected with the wires 15 16 and energized thereby. This relay 19 is provided with a contact 20, and connected with this contact is a wire 12. An armature-lever 21 forms a coacting member for the contact 20 and is moved by the attraction in the usual manner. The wire 7 is connected with this armatured lever.

A casing 22 is provided with a contact member 23, insulated therefrom by a sleeve 24, and mounted within this casing is a spring-tongue 25, constituting a contact member for engaging the contact member

23. A fuse-wire 26 is connected with the casing and with the spring-tongue 25, so as to normally maintain the latter under a suitable degree of tension. When the fuse-wire 26 is melted, the spring-contact 25 is released, and thereby engages the stationary contact 23. The casing 22 is connected with the wire 7 by means of a binding-post 27, as indicated in Fig. 2.

The relay 10 is provided with a contact device 28, which controls a circuit 29, provided with a battery 30, and included within this circuit is a bell 31 or analogous alarm. A relay 32 is provided with a contact device 33, which by aid of a battery 34 controls a local circuit 35, and included within this circuit is a bell 36 or analogous alarm. The relays 10 and 32, together with the local circuits controlled thereby, may be inclosed within a casing 37. (Indicated by dotted lines in Fig. 1.)

The operation of my device is as follows: The parts being in the several positions indicated in Fig. 1, if a fire should break out and melt the fuse-wire 26, (see Fig. 2,) the spring-tongue contact 25 by engaging the stationary contact 23, as above described, completes the following main circuit: battery 3<sup>a</sup> at the central station, wire 4, wire 7, transmitter 9, binding-post 27, casing 22, contacts 25 23, wire 12, switch 13, wire 11, relay 10, wire 8, and wire 5, back to battery 3<sup>a</sup>. This circuit alarms the central operator, who of course establishes the talking-circuit in the usual manner. Instead of hearing a call, however, the operator hears the ringing of an alarm. This ringing of the alarm is produced by the relay 10, which closes the contact 28, and thereby establishes the following local circuit: battery 30, wire 29, contact 28, bell 31, back to battery 30. The ringing of the bell 31 actuates the transmitter 9, and consequently the operator at the central station 3 hears the ringing of the bell 31. If, however, instead of a fire breaking out, a burglar opens a door or a window and thereby opens any of the contacts 17 18, the following circuit is thus broken: battery 16<sup>a</sup>, wire 16, relay 32, wire 14, switch 13, wire 15, relay 19, back to battery 16<sup>a</sup>. This deenergizes the relays 19 32 and causes the contacts 20 33 to close the respective circuits controlled thereby. Communication is thus made between the wires 12 and 7, so as to energize the relay 10 and close the local circuit 29, ringing the bell 31, as above described.



The contact 33 likewise closes the local circuit 35, so that the battery 34 energizes the bell 36. This bell may be so disposed as to serve as a local alarm and at the same time may  
5 actuate the transmitter 9, so that the operator at the central station hears the ringing of both bells 31 and 36. The operator therefore knows from the character of the sound heard through the telephone whether  
10 the alarm is due to a fire or to a burglar.

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

1. The combination with the central station, of wires extending therefrom and forming a normally open circuit, a heat-controlled member for closing the circuit, a relay interposed in one of the wires, a local circuit closed thereby and including an alarm, and a transmitter connected with the other wire adjacent to the alarm whereby to transmit the same.

2. The combination with the central station, of wires extending therefrom and forming a normally open circuit, a heat-controlled member for closing the circuit, a normally open local circuit including an alarm adjacent to the heat-controlled member, means interposed in one of the wires for closing the  
30 local circuit, and a transmitter interposed in

the other wire and adjacent to the alarm for transmitting the same.

3. The combination of a central station provided with telephone mechanism, wires connecting said central station with a distant station, a telephone-transmitter located at said distant station, an electric bell disposed at said distant station and located adjacent to said telephone-transmitter, a local circuit connected with said bell for energizing the same, a relay connected with said circuit for opening and closing the same, an electric circuit connected with said relay for energizing the same, heat-controlled mechanism connected with said electric circuit for controlling the same, another electric bell disposed adjacent to said transmitter, a local circuit for energizing said last-mentioned electric bell, a relay for controlling said last-mentioned local circuit, and contact mechanism controlled by the movements of a burglar for controlling said last-mentioned circuit.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ERNEST SAMUEL MOORER.

Witnesses:

S. F. McCOWELL,  
S. N. GILMER.