No. 736,755. PATENTED AUG. 18, 1903.

G. B. MARTIN.

ELECTRIC FIRE ALARM.

APPLICATION FILED MAY 22, 1903.

NO MODEL.

Fig. 1

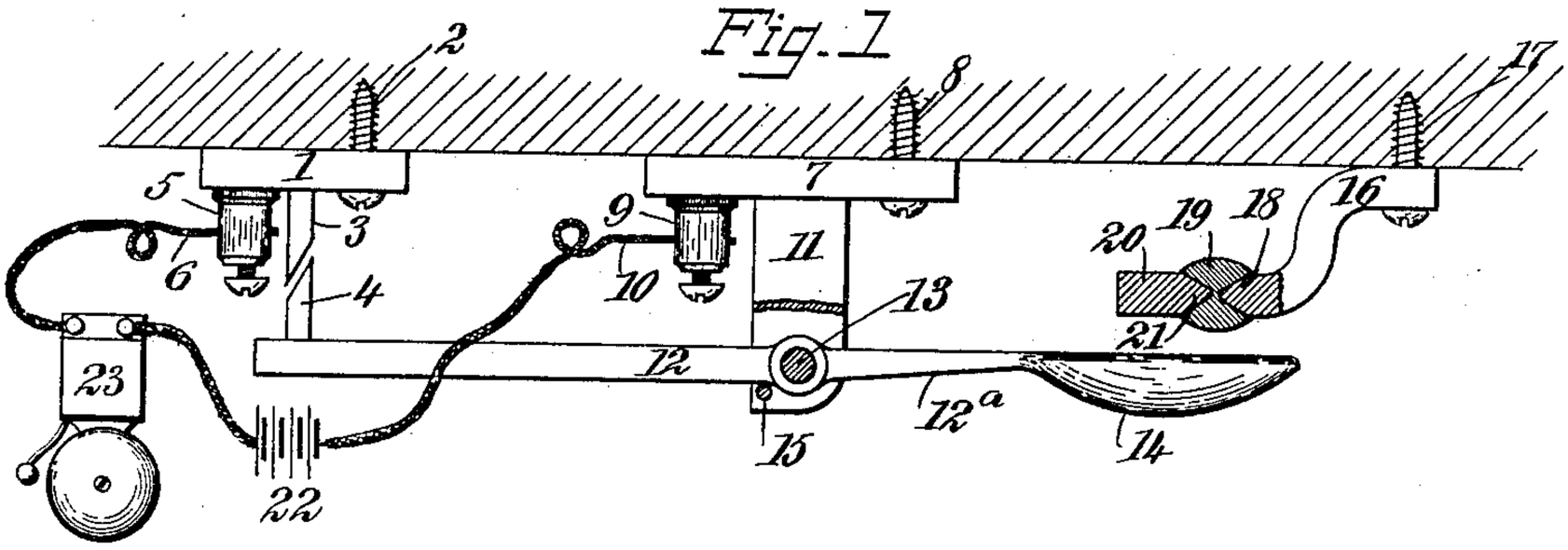


Fig. 2

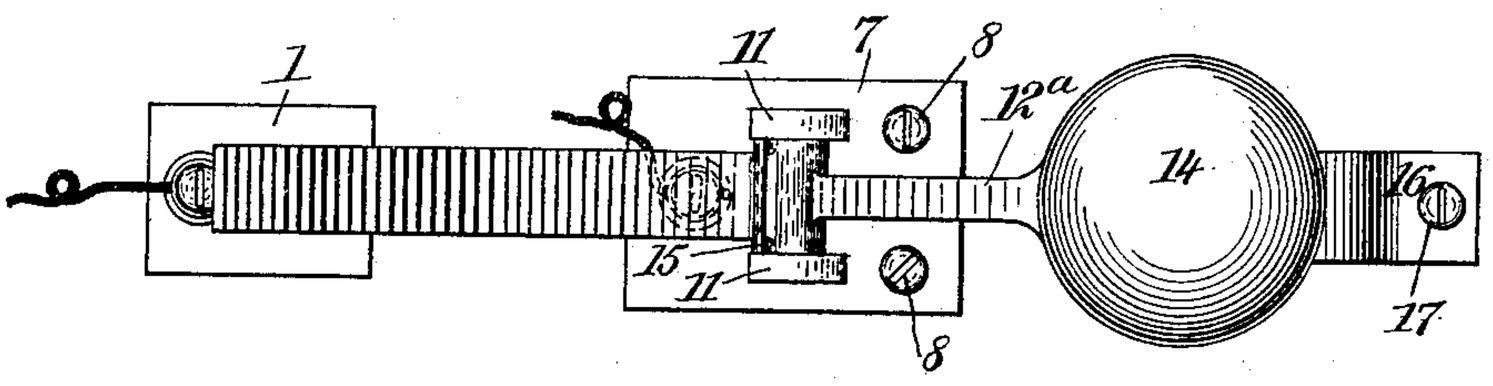
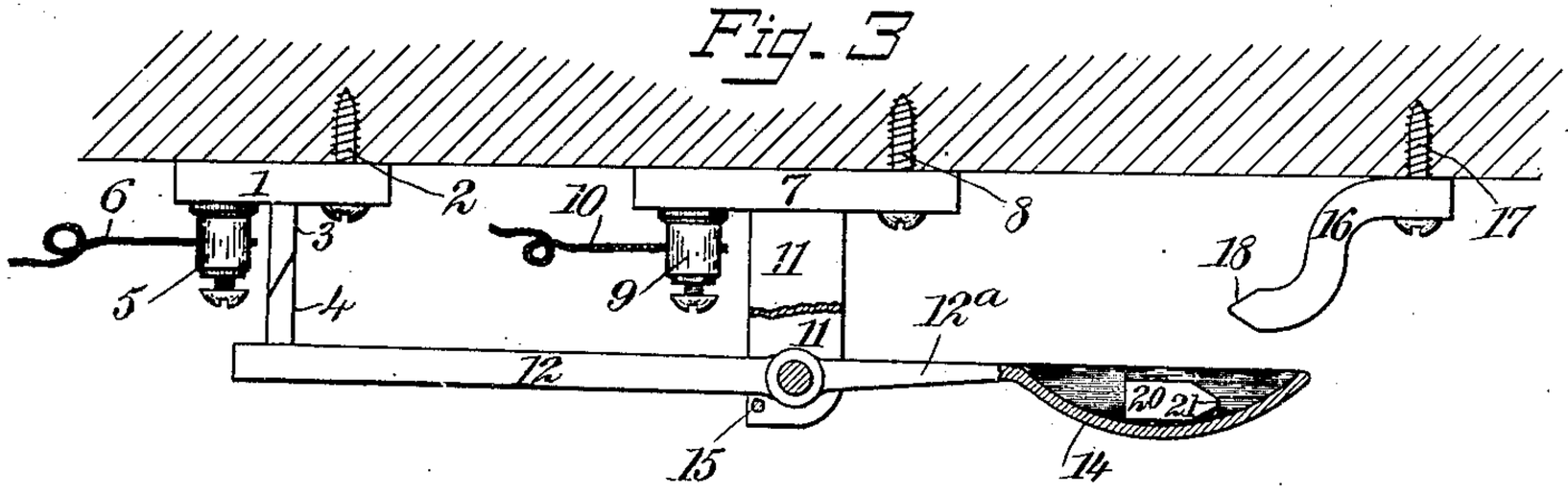


Fig. 3



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No. 736,755. Patented August 18, 1903.

UNITED STATES PATENT OFFICE.

GEORGE BRUCE MARTIN, OF ZANESVILLE, OHIO.

ELECTRIC FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 736,755, dated August 18, 1903.

Application filed May 22, 1903. Serial No. 158,326. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BRUCE MARTIN, a citizen of the United States, and a resident of Zanesville, in the county of Muskingum and State of Ohio, have invented a new and Improved Electric Fire-Alarm, of which the following is a full, clear, and exact description.

My invention relates to electric fire-alarms, and more particularly to the production of a neat, cheap, simple, and efficient form of fire-alarm suitable for use in houses, hotels, restaurants, &c., being an article which may be readily put and sold in the market.

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 all the figures.

Figure 1 is a side elevation, partly in section, showing my device ready for use. Fig. 2 is an inverted plan view of the same; and Fig. 3 is a view similar to Fig. 1, but showing the device in the act of sounding an alarm.

A plate 1, preferably of metal, is mounted upon a ceiling by means of a screw 2 and is provided with a beveled contact member 3. This contact member is mated by another beveled contact member, 4, of substantially similar form. The plate 1 is provided with a binding-post 5 for engaging a wire 6 or other conductor in the usual manner. Another plate, 7, is mounted upon the ceiling by means of screws 8 and is provided with a binding-post 9 for engaging the wire 10. The plate 7 is provided with parallel brackets 11, between which is disposed a lever consisting of a comparatively heavy portion 12 and a bowl-shaped portion 14, these parts being connected rigidly together, said lever carrying the contact member 4, above mentioned. A stop-pin 15 is mounted upon the brackets 11 and serves to limit the movement of the heavy portion 12 of the lever in one direction. The bowl-shaped portion 14, together with the neck 12^a, whereby these two parts are connected, constitutes a spoon-shaped lever.

A bracket 16, preferably of metal and having a substantially serpentine form, is secured to the ceiling by means of a screw 17 and is provided with a pointed end 18, as indicated more particularly in Figs. 1 and 3. A spherical piece of wax 19 or other substance fusible by heat is secured upon the pointed end 18, and upon this wax 19 a weight 20 is secured by inserting the pointed end 21 of the weight directly into the body of the wax, as indicated in Fig. 1. The weight 20 is thus held temporarily in position, but is free to drop when the wax 19 melts.

The wires 6 and 10 are connected with a battery 22 and with an alarm-bell 23 or equivalent device, such as a regular alarm device used in cities.

The operation of my invention is as follows: The several parts being in the position indicated in Fig. 1, the weight of the lever 12 causes the contact member 4 to move away from the contact member 3, thus producing a break in the circuit leading to the bell 23. This represents the normal position of the several parts and may be maintained indefinitely in the absence of fire. If, however, a fire breaks out or for any other reason the wax 19 becomes heated, the weight 20 drops into the bowl 14, as indicated in Fig. 3. The increased weight upon this end of the lever causes the contact member 4 to rise, thereby engaging the contact member 3 and completing the circuit from the battery 22 through the conductors 10 6, and bell 23, thereby sounding the alarm.

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

1. In an electric fire-alarm, the combination of a stationary contact member, movable mechanism provided with a contact member for engaging said stationary contact member, and also provided with a bowl, and a heat-controlled weight for dropping into said bowl and thereby actuating said movable mechanism.

2. In an electric fire-alarm, the combination of a bracket of conducting material, provided with a binding-post and with a contact member, said bracket being further provided with means whereby it may be secured to a fixture, a lever pivotally mounted adjacent to said bracket and provided with a contact member for engaging said contact member first mentioned, and further provided with a receptacle, an electrical alarm mechanism connected with said binding-post, a weight for dropping into said receptacle and thereby ac-

tuating said lever, and a fusible substance for normally suspending said weight.

3. In an electric fire-alarm, the combination of a stationary member provided with a pointed end, a quantity of fusible material mounted upon said pointed end, a weight provided with a pointed end engaging said fusible material for the purpose of temporarily supporting said weight, a weight-controlled electrical mechanism disposed adjacent to the said weight free to be actuated thereby, and an alarm to be actuated by said weight-controlled electrical mechanism.

4. In an electric fire-alarm, the combination of a plate provided with brackets and with a binding-post, a lever disposed between said brackets and pivoted thereon, said lever being provided with a bowl and with a contact member, another contact member disposed adjacent to said first-mentioned contact member and connected with said binding-post, wiring for connecting said binding-post with an electric alarm, and a heat-controlled weight for dropping into said bowl.

5. In an electric fire-alarm, the combination of a movable member free to open and close a contact, said member being provided with a bowl, and a weight for dropping into said bowl, said weight being temporarily restrained by means of a heat-controlled medium.

6. In an electric fire-alarm, the combination of a stationary contact member, means for mounting the same, a movable lever provided with a contact member mating said stationary contact member and also provided with a bowl, a bracket provided with means for securing the same upon a fixture and also provided with a pointed end, a quantity of fusible material mounted upon said pointed end, a weight provided with a pointed end, said pointed end being inserted within said fusible material, said weight being disposed directly over said bowl, and electrical connections for said lever and said stationary contact member.

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

GEORGE BRUCE MARTIN.

Witnesses:
DONALD THOMSON,
FRANK HAWORTH.