

No. 626,382.

Patented June 6, 1899.

M. M. HUMPHREY.

AUXILIARY ELECTRIC ALARM FOR TELEPHONE CALL BELLS.

(Application filed May 27, 1898.)

(No Model.)

Fig. 1.

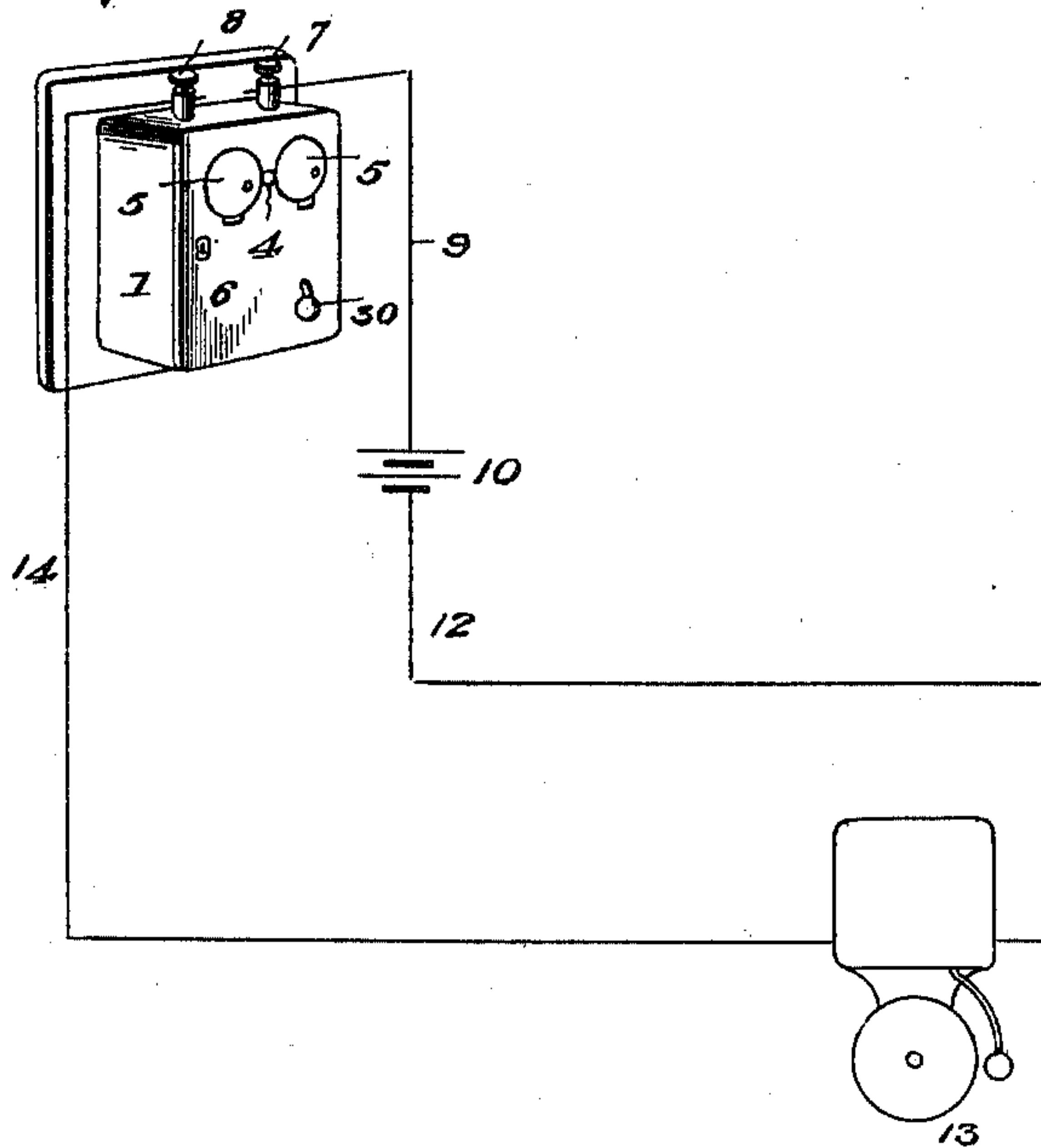
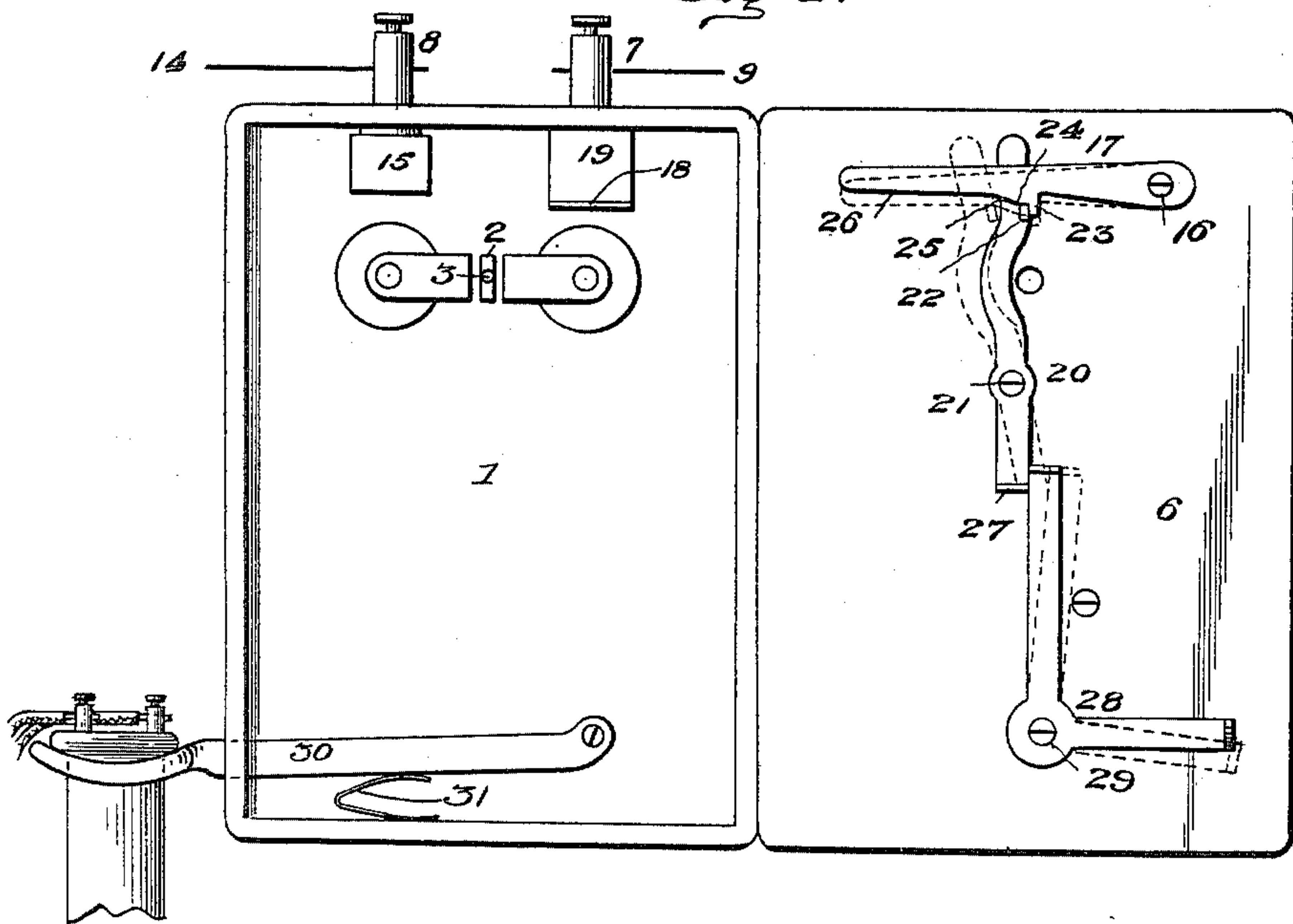


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

MORTON MOLDER HUMPHREY, OF SILOAM SPRINGS, ARKANSAS.

AUXILIARY ELECTRIC ALARM FOR TELEPHONE CALL-BELLS.

SPECIFICATION forming part of Letters Patent No. 626,382, dated June 6, 1899.

Application filed May 27, 1898. Serial No. 681,896. (No model.)

To all whom it may concern:

Be it known that I, MORTON MOLDER HUMPHREY, a citizen of the United States, residing at Siloam Springs, in the county of Benton and State of Arkansas, have invented certain new and useful Improvements in Auxiliary Electric Alarms for Telephone Call-Bells; and I do 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 relates to improvements in auxiliary electric alarms for telephone call-bells; and the object is to provide a simple and reliable device for sounding an alarm at a distant point from the telephone-station, whereby a person not within hearing distance of the usual magnetic call-bell will be notified when the call is sounded.

To this end the invention consists in the construction, combination, and arrangement of the auxiliary signal-bell with the usual magneto call-bell, as will be hereinafter more fully described, and particularly pointed out in the claims.

The accompanying drawings show my invention in the best form now known to me; but many changes in the details might be made within the skill of a good mechanic without departing from the spirit of my invention as set forth in the claims at the end of this specification.

The same reference characters indicate the same parts of the invention.

Figure 1 is a perspective view of a telephone magneto call-bell and the auxiliary alarm embodying my invention. Fig. 2 is a diagrammatic view showing the automatic switch and its actuating mechanism.

1 denotes the usual magneto call-box, and 2 its vibrating armature provided with the hammer-arm 3, on the free end of which is mounted the hammer 4, which is adapted to alternate its strokes on the gongs 5 5, which are fixed on the outside of the hinged cover 6 of the call-box 1.

7 and 8 represent binding-posts fixed to the box 1, and from the post 7 a conductor-wire 9 extends to a battery 10, and from said battery a conductor-wire 12 extends to an ordinary vibrating call-bell 13. From said bell

a return conductor-wire 14 extends to the binding-post 8. On the lower end of the binding-post 7, within the call-box 1, is fixed a contact-spring 15, the free end of which forms an electrical contact with the screw-post 16, fixed on the inner face of the hinged cover 6.

17 represents a gravity conductor-lever fulcrumed on the screw-post 16, and its free end is arranged to form a contact with the horizontal finger 18 on the lower end of a conductor 19, depending from the binding-post 8, so as to complete the circuit between the binding-posts 7 and 8 and sound an alarm on the bell 13. The free end of this contact-lever 17 is normally held out of contact with the finger 18 by means by the vertical lever 20, fulcrumed on the stud-screw 21, fixed in the box-cover. The upper arm of this lever 20 extends across the path of the hammer-arm 3, and its upper end is provided with a horizontal toe 22, upon which the lower edge of the contact-arm rests. The lower edge of this contact-arm is formed with a limit-lug 23, against which the toe 22 rests when the contact-lever is raised, and with a plain ledge 24, which rests upon the toe. From the ledge 24 the edge is inclined at 25 to the horizontal edge 26, so that when the lever 20 is thrown to the right (as shown by the dotted lines of Fig. 2) by the action of the magneto bell-hammer arm the contact-lever 17 will drop and its free end 26 close the alarm-circuit between the binding-posts 7 and 8 and sound the auxiliary alarm.

The lower arm of the trip-lever 20 terminates in a horizontal toe 27, which projects into the path of the vertical arm of a setting-lever 28, fulcrumed on a stud-bolt 29, and the free end of the horizontal arm of said lever is turned inwardly and projects across the path of the telephone receiver-lever 30, so that when the receiver is on the hook the vertical arm of the setting-lever 28 is out of contact with the lower arm of the trip-lever 20.

If a call be received on the box 1, the arm 3 of the magneto-call will be vibrated horizontally, which will throw the trip-lever 20 into the position shown by the dotted lines, so that its upper arm will allow the contact-lever 17 to drop, when its free end 26 will rest on the finger 18 and close the alarm-circuit and sound the auxiliary alarm on the bell

13, which will continue ringing until the receiver is removed from its lever 30, which, being relieved of its weight, is thrown upward under the influence of the spring 31, carrying upward with it the horizontal arm of the setting-lever 28, the vertical arm of which sets the trip-lever, which in turn raises the free end of the contact-lever 17 out of contact with the contact-finger 18, and thus opens the alarm-circuit and silences the auxiliary alarm.

The device is entirely automatic in its action, requiring no attention whatever, and by means of an ordinary switch may be rendered inoperative whenever desired.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

20 1. The combination with the magneto-call and its armature, of an auxiliary alarm-circuit, a gravity contact-lever adapted to close said alarm-circuit and a trip-lever project-

ing into the path of said armature-lever and adapted to support said contact-lever, substantially as shown and described. 25

2. The combination with the magneto call-box, its vibrating armature and the receiver-lever, of an auxiliary alarm-circuit terminating at said box, a gravity contact-lever adapted to close said circuit, a trip-lever projecting into the path of said armature and adapted to support said contact-lever, and a setting-lever having its vertical arm extending across the path of said tripping-lever and its horizontal arm extending across the path of said receiver-lever, substantially as shown and described. 30 35

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 40

MORTON MOLDER HUMPHREY.

Witnesses:

J. B. LINEBACK,
W. C. MOORE.