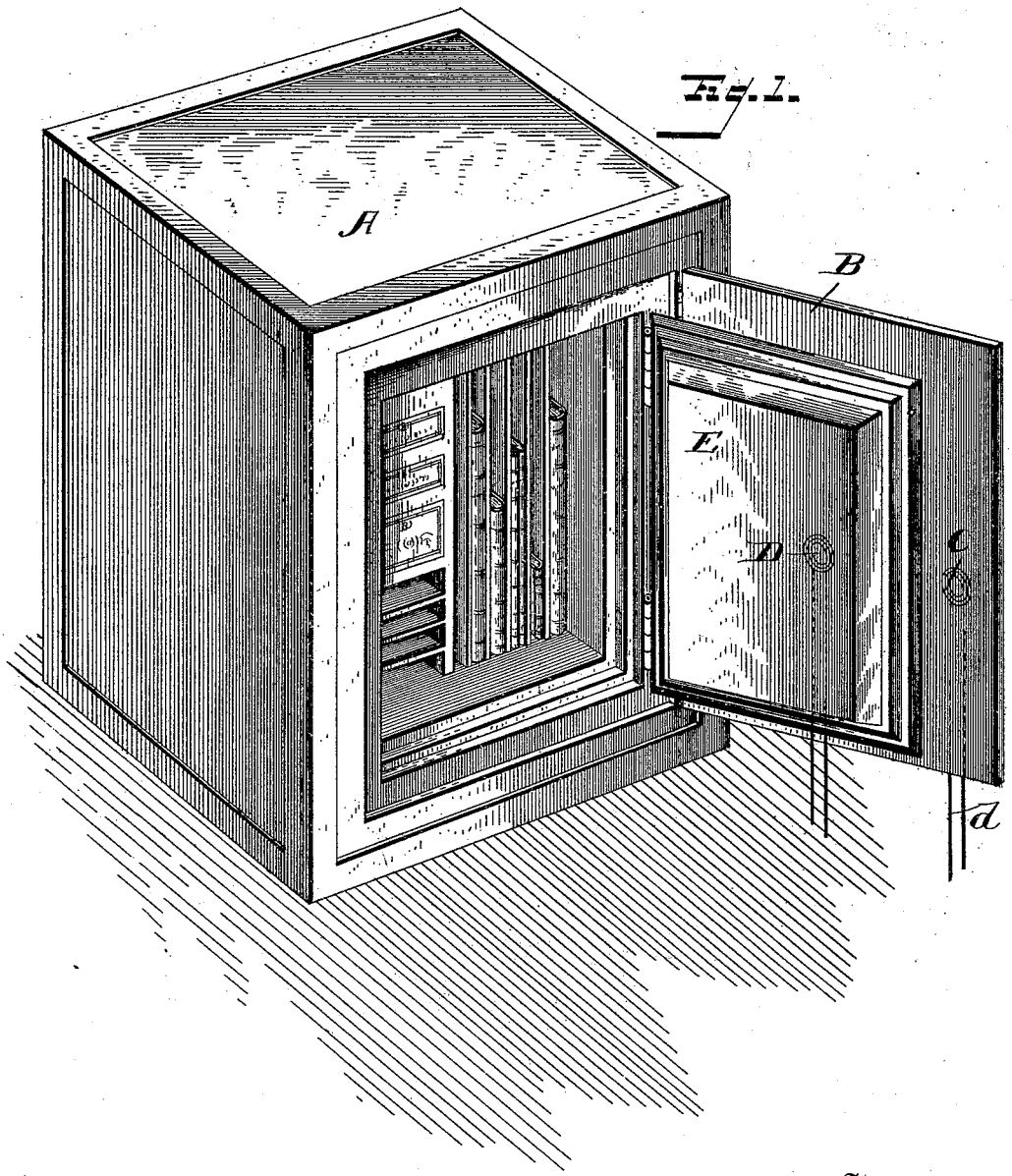
(No Model.) 2 Sheets—Sheet 1.

W. H. CARR.

ELECTRIC BURGLAR ALARM.

No. 490,870. Patented Jan. 31, 1893.

Fig. 1.



Witnesses
C. E. Hunt.
M. J. McMahon.

Inventor
Warren H. Carr,
By J. R. Littell,
his Attorney

(No Model.) 2 Sheets—Sheet 2.

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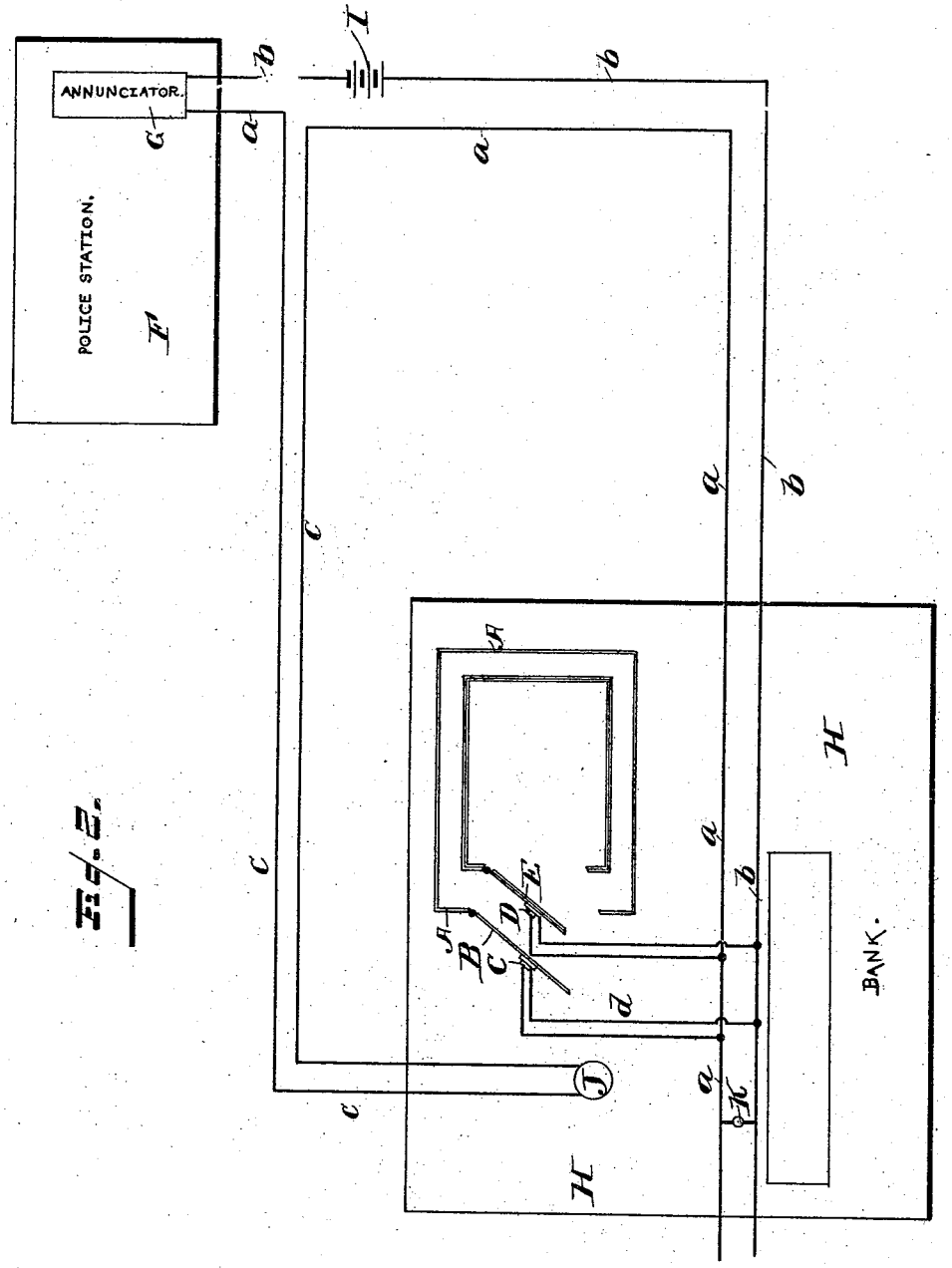

Fig. 2.

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Inventor
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his Attorney.

UNITED STATES PATENT OFFICE.

WARREN HENRY CARR, OF BATH, MAINE, ASSIGNOR TO HIMSELF AND JAMES W. WAKEFIELD, OF SAME PLACE.

ELECTRIC BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 490,870, dated January 31, 1893.

Application filed September 22, 1892. Serial No. 446,572. (No model.)

To all whom it may concern:

Be it known that I, WARREN HENRY CARR, a citizen of the United States, residing at Bath, in the county of Sagadahoc and State of Maine, have invented certain new and useful Improvements in Electric Burglar-Alarms; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a new and improved burglar alarm and protective system for banks and the safes or vaults therein; and has for its object to provide electro mechanical alarm signaling and indicating apparatus at a central or police station operated automatically by circuit controlling devices in the safe designed to be actuated by any attempt to manipulate the lock or to enter the safe on the part of any unauthorized person.

It is a further object of my invention to provide an auxiliary exterior protective casing enveloping the safe proper and also included in the alarm circuit which circuit is also closed by any tampering or unwarrantable endeavor to open the auxiliary casing by a burglar or unathorized person.

For the attainment of the above stated objects, my invention comprises certain details of mechanical structure, and arrangement of electro-mechanical devices and circuits; all of which will be more fully described hereinafter, and specifically pointed out in the appended claims.

Referring to the accompanying drawings:—Figure 1, is a perspective view showing my improved protective casing placed over the safe proper, and Fig. 2, is a diagrammatical view showing the circuits, the central station containing the alarm signaling and visual indicating apparatus, and the bank fixtures included in the said circuit.

Like letters of reference indicate like or corresponding parts in the several views of the drawings.

Before proceeding to further describe my invention, I desire to state that in the diagram of the drawings the several well known electro-mechanical features that are illustrated are only shown conventionally, the details of construction being of any approved form.

Referring to Fig. 1, A designates the exterior rectangular skeleton-covering made of any desired metal, such as steel, and suitably fastened and insulated from the safe proper. This casing is provided with a door, B, corresponding in size, shape and arrangement to the door of the interior safe, and accordingly equipped with a combination lock, C, corresponding to the lock, D, on the safe door, E; by the provision of this auxiliary or supplemental covering, an additional safeguard is provided, both as regards rendering the same more securely burglar proof and furnishing a supplementary alarm sounder, as will be more clearly set forth hereinafter.

Referring to Fig. 2, F represents the police or central station provided with the annunciator and visual indicator apparatus, G, here illustrated conventionally and designed to be of any suitable construction. A number of banks or residences can be independently run into circuit with this one station, as will be manifest, but for the sake of clearness and simplicity, I have shown only one circuit from the bank, H, to the station. This circuit includes certain circuit controlling apparatus at the bank, the electro-magnets of the alarm indicator and sounder at the station, and extends from the source of electricity, I, through the station to the bank. This main circuit consists of the outgoing wire or conductor, *a*, and the return branch, *b*. In a branch, *c*, from one leg of said main circuit, is a cut off switch, J, located in the bank H, whereby a properly authorized employé can cut off or open the circuit during the business hours, and close the same in an operative condition for the night after closing hour. When the switch is open all the automatic alarm sounders on the safes are open circuited.

Under the counter or desk of the bank is located a push button, K, connected in multiple arc with the main circuit, whereby the alarm may be sounded in the day even when the switch J, is open, so that protection is afforded to the bank in case aid is needed in any emergency during the day.

The combination lock C of the casing A is

electrically connected with the main circuit by a multiple arc branch, *d*, in such manner that a predetermined movement of said lock will sound the alarm at the station. In order to represent such circuit controller, I have only deemed it necessary to show the branch circuit *d* running into the conventionally shown lock C, since the manner of controlling the circuit by said lock may be varied at will according to the preferred methods. Likewise, the lock D on the safe proper is in circuit with the main circuit so as to sound the annunciator and drop a shutter at the central station, thus indicating to the person in charge that the bank-safe corresponding to the number on the door shutter is being tampered with.

Having thus described my invention, I claim and desire to secure by Letters Patent:

The combination, with a central station, electro-mechanical annunciating and indicating apparatus located at said station and included in an electric circuit, and an electric circuit fed by a suitable source of electricity and extending from said station to a distant safe, of a rectangular wholly-metallic casing surrounding the safe and insulated therefrom by an air-space, a circuit controlling lock on a door of said casing and included in the electric circuit, a circuit controlling lock on the safe door and included in the same electric circuit, a controlling switch for said circuit located near the safe, and a push button included in a multiple arc branch from the main circuit; said branch being arranged to short-circuit the safe when closed, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WARREN HENRY CARR.

Witnesses:
W. B. MUSSENDEN,
W. R. CAMPBELL.