

(No Model.)

T. J. McTIGHE.
TELEPHONE SWITCH.

No. 270,326.

Patented Jan. 9, 1883.

Fig. 1.

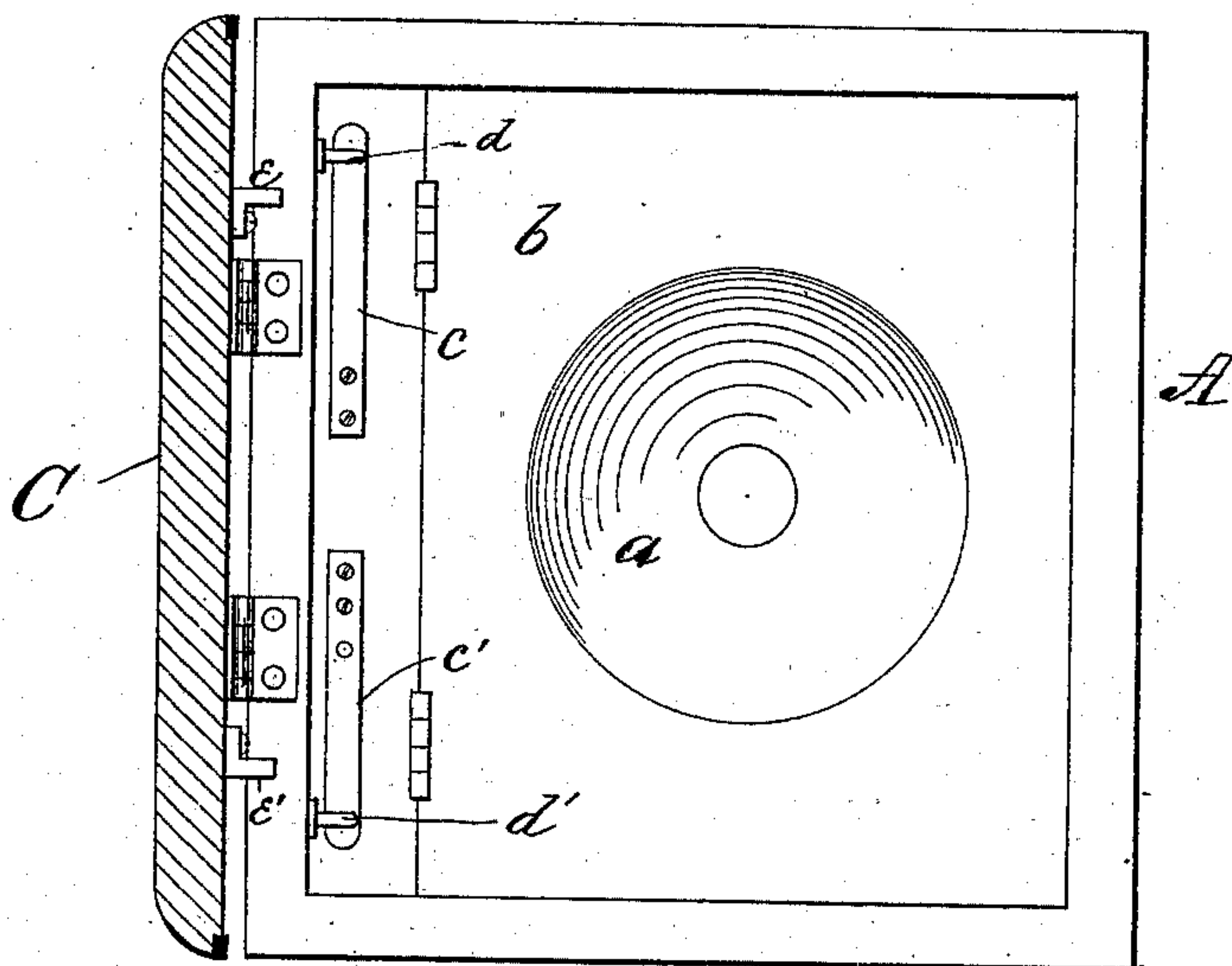
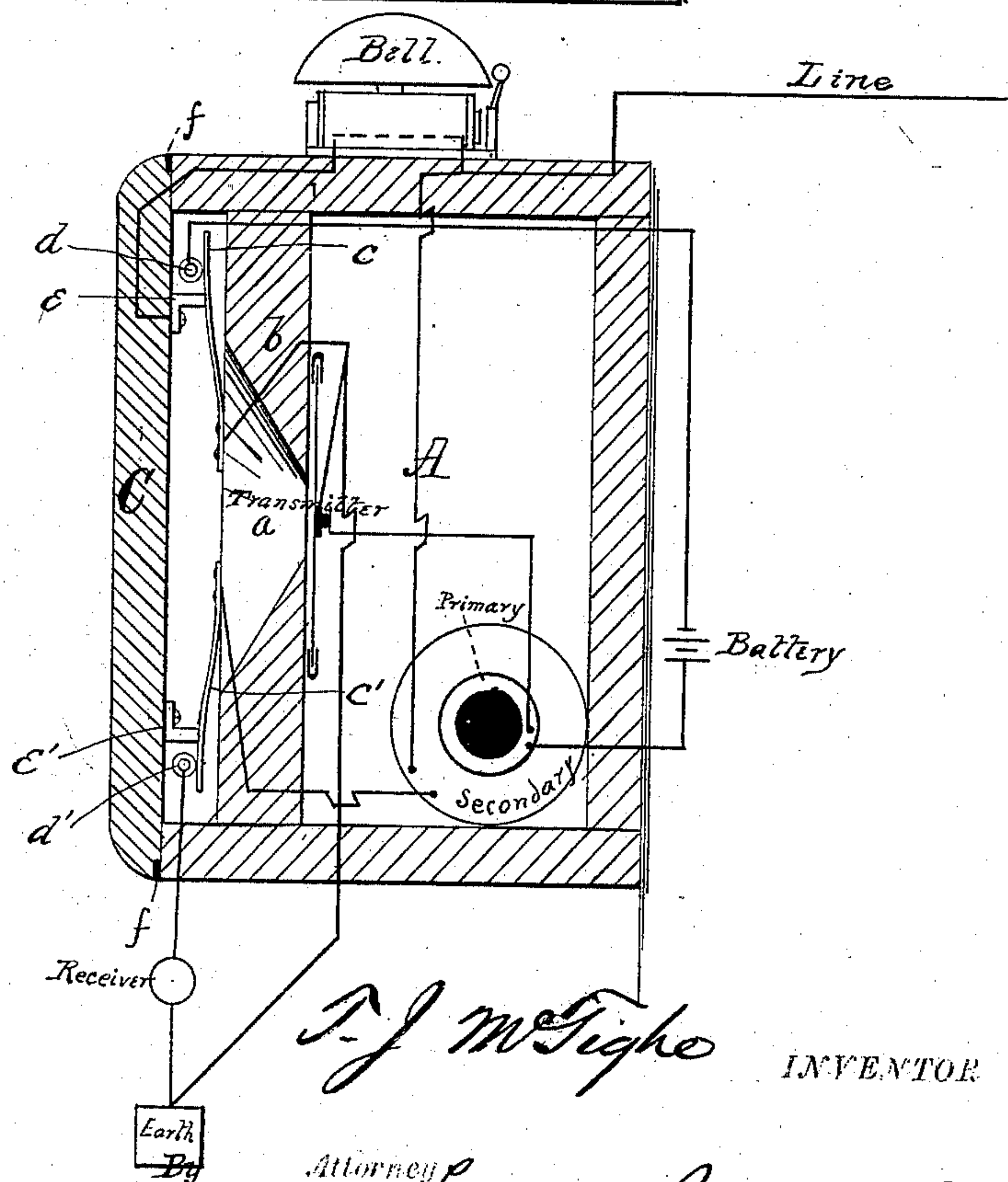


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

THOMAS J. MCTIGHE, OF PITTSBURG, PENNSYLVANIA.

TELEPHONE-SWITCH.

SPECIFICATION forming part of Letters Patent No. 270,326, dated January 9, 1883.

Application filed June 16, 1881. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. MCTIGHE, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Telephone-Switches; 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, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a front elevation of a transmitter with open door in section. Fig. 2 is a vertical transverse section of Fig. 1.

This invention relates to telephonic apparatus or other electrical devices in which it is desired that switching or shunting shall be done at certain times by the automatic action of parts. For instance, in telephonic apparatus as now used, when the apparatus is not in actual operation it is desirable that the extra resistance of the receiver should be cut out of the line and the battery put on open circuit, and that when in use the receiver should be in circuit, battery closed on transmitters, and bell-resistance cut out. Other changes are sometimes desirable also.

My invention consists in arranging upon the transmitter or other portion of the apparatus a protecting-door or other covering, which must be moved for access to the apparatus or part thereof, and so constructing the terminals of the various circuits that the motion of the door or covering effects the switching, shunting, or cutting out, or any of them.

My invention further consists in combining with a transmitter a protecting-door or covering, made dust-tight for the preservation of the working parts inside, and, further, in the combination and arrangement of parts, substantially as hereinafter fully described and claimed.

In the drawings, A designates the transmitter-casing. To the transmitter-box A, I attach a door, C, which must be swung open or otherwise moved out of the way before access can be had to the instrument inside or under cover. I arrange the various circuits in such manner

that the opening and closing or swinging of the door C will effect the proper modification of circuits. This may be done in a variety of modes; but one illustration will suffice for present purposes. I construct the sides and ends of the box A so as to project beyond the plane of the mouth-piece *a*, which stands on the inner face, *b*. On face *b*, I place spring-strips *c c'*, which, when free to move, spring forward against the contact-pins *d d'*, respectively. Projections *e e'* on door C, when the door C is shut, push the strips *c c'* away from and out of contact with the pins *d d'*. Now, let the battery-circuit through the transmitter terminate at points *c d*, bell-circuit terminate at *c e*, and receiver-circuit terminate at *e' d'*. When not in use the door C is shut, and may be fastened by a spring-catch or other device. When door C is shut strips *c c'* are pressed away from pins *d d'* and metallic projection *e* of door C is in contact with strip *c*. In this position the battery and transmitter circuit is cut or broken, as is also the receiver-circuit, and the bell-circuit is closed to the line. Now, before any conversation can be carried on, the door C must be opened, and the opening act allows strips *c c'* to close on pins *d d'*, while projection *e* leaves strip *c*, and thus the bell-circuit is cut, while transmitter and receiver circuits are closed for conversation. The principle may be applied to either the transmitter-box or call-box, or to a box placed to contain the receiver.

I do not confine the scope of my invention to the particular form and arrangement above described, as the broad principle of a door or other covering whose movement for access to interior shall operate switches may be applied in many ways within the ordinary skill of electricians.

The door C may be provided with a packing, *f*, so that when shut all dust and insects will be excluded. In some countries this feature is important for the preservation of the parts.

I claim as my invention—

1. The combination of the terminals, spring-strip *c*, and pin *d* on box A with projection *e* on door C, substantially as described.

2. The combination, with a switch acting to make and break the main-line circuit through

a signal-bell, of a second switch acting to simultaneously break and make the main-line circuit through a telephone, and a movable cover for the transmitter.

- 5 3. The combination, with a circuit making and breaking switch for the loop containing the telephone and a switch controlling the local circuit, of a hinged cover-plate for the transmitter and operating devices for said
10 switches actuated by the cover-plate.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

THOMAS J. MCTIGHE.

Witnesses:

T. J. PATTERSON,
JAMES J. MCTIGHE.