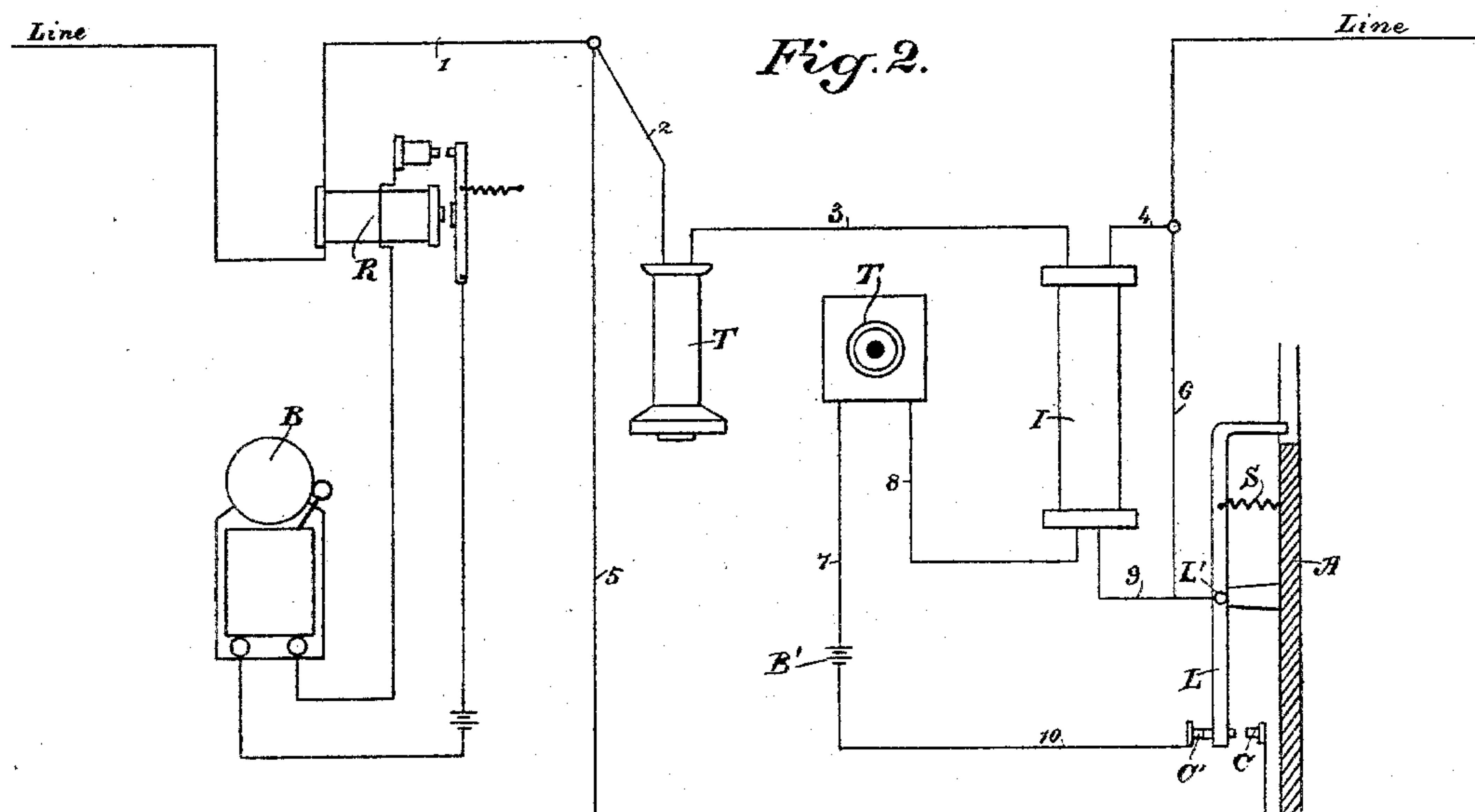
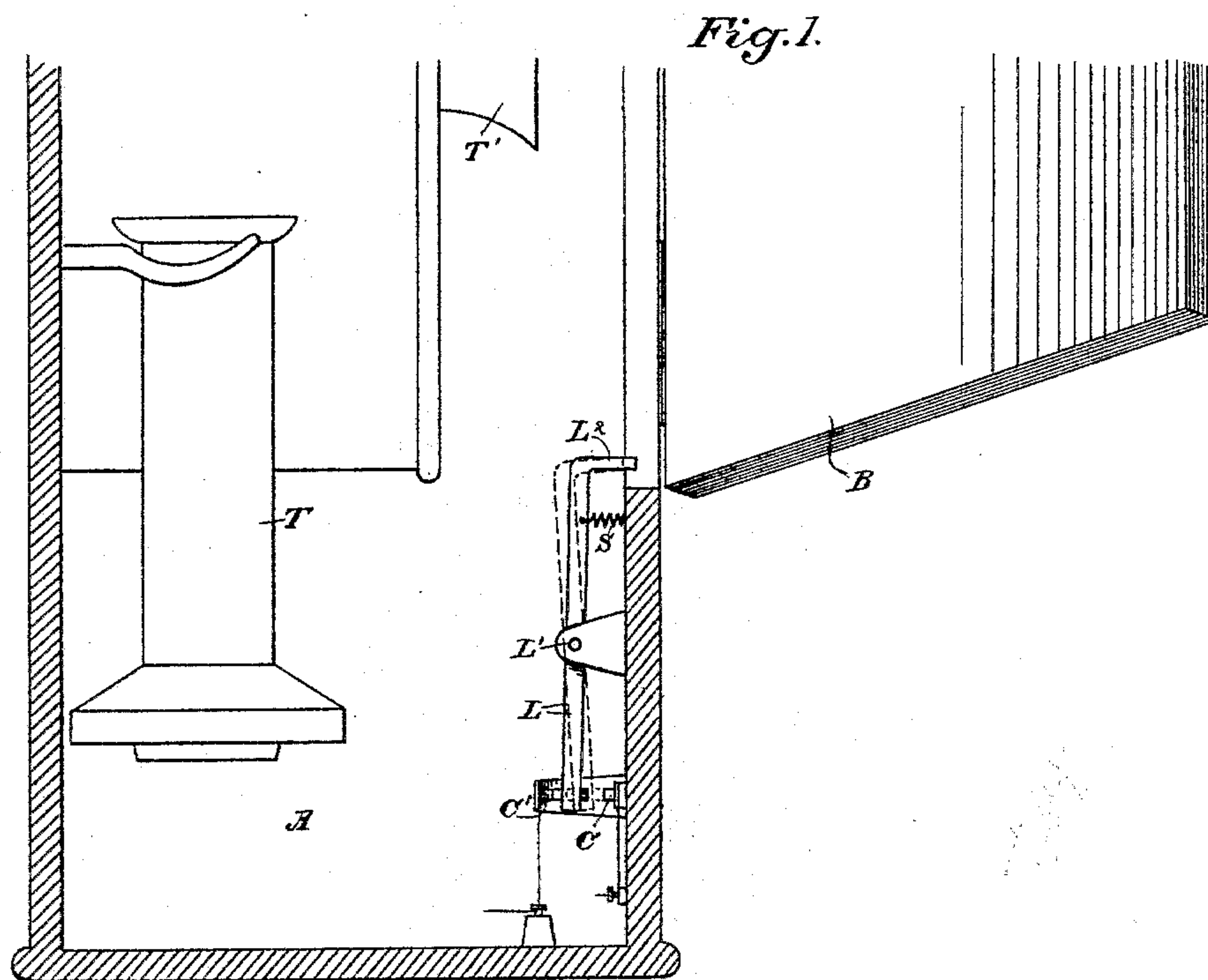


(No Model.)

A. C. ROBBINS.
ELECTRIC SWITCH AND CUT-OUT FOR TELEPHONE BOXES.
No. 589,618. Patented Sept. 7, 1897.



Witnesses,
J. H. Morse
H. F. Aschbeck

Inventor,
Arthur C. Robbins
By D. W. Co. atty.

UNITED STATES PATENT OFFICE.

ARTHUR C. ROBBINS, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO
EDWARD C. HUGHES, OF SAME PLACE.

ELECTRIC SWITCH AND CUT-OUT FOR TELEPHONE-BOXES.

SPECIFICATION forming part of Letters Patent No. 589,618, dated September 7, 1897.

Application filed March 26, 1897. Serial No. 629,345. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR C. ROBBINS, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in an Electric Switch and Cut-Out for Telephone-Boxes; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an electric switch and cut-out mechanism for telephone-boxes, and applies principally to telephonic apparatus which is inclosed in boxes or closets, such as are used in police and fire-alarm systems and placed upon posts in the street.

It consists in details of construction whereby the opening and closing of the door actuates the mechanism for cutting the telephonic apparatus in or out of the main circuit and at the same time placing the local telephone-battery in or out of the circuit.

In the accompanying drawings, Figure 1 is a view of the closet, showing the door open and the telephone in the circuit. Fig. 2 is a diagrammatic view showing the parts and the relative position when the door is open.

A is the containing-box, and B is a door by which it is opened or closed. In Fig. 2 the line from the central station to the box and continuing beyond the same is illustrated, as shown.

The line from the central station enters the box or closet through a main-line relay R, passing thence through wires 1 and 2, telephone-receiver T, wire 3, induction-coil I, and wire 4, passing thence from the box to the line with the entire apparatus in circuit.

The shunt-circuit passes through wire 5, contact C, lever L, and wire 6, as shown.

The lever L is suitably fulcrumed at L' within the case or closet, having two contact-points C and C', here shown upon opposite sides at one end, a bent arm L² at the opposite end, and a spring S connecting with the lever, so as to draw the bent arm into the path of the door B, which is movable upon the box or closet A.

When the door is opened, the contact of the lever L is separated at C by the action of the spring S, the opening of the door relieving the pressure on the arm L² of the lever.

At the same time the shunt or cut-out to the main line is broken at C, the lever L makes a connection at the opposite contact C' and closes connection with the local telephone-battery B' through the wire 7, transmitter T, wire 8, induction-coil I, wire 9, lever L, contact C', and the wire 10. Upon closing the door the lever L breaks the connection of the local circuit just described by separating the contacts at C' and closes the cut-out or shunt-circuit by making the contacts at C, the tilting of the lever by the closing of the door against the arm L² producing this result. When this occurs, the main-line current passes through the relay R, wires 1 and 5, contact C, lever L, wire 6, and then exits from the box into the main line, a proportionate amount of the current also passing through the telephone.

It will be noted that no main-line circuit is broken in this cut-out operation, the current passing through the telephonic apparatus entirely should the contact at C prove ineffective.

The relay R and bell B are used for illustrative purposes only, and may be replaced by a magneto-electric bell or other suitable apparatus which will take the same relative position in the circuit as is shown for the relay R in the diagram.

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

1. In an inclosed telephone, a transmitter, receiver, and local battery with induction-coil and connecting-wires, a door attached and opening to expose the interior of the inclosing box, contacts and a lever fulcrumed between its ends, having one portion bent into the path of the door so as to be actuated thereby and the opposite portion having the contacts on its opposite sides whereby when one contact is made, the telephone apparatus is thrown into the circuit, and when this is broken and the other made the current is shunted around said apparatus.

2. In an inclosed telephone, a transmitter, receiver, and local battery with inductive coil and connecting-wires, a door attached and opening to expose the interior of the inclosing box, contacts whereby when one contact is made, the telephonic apparatus is

thrown into the circuit, and when this is broken and the other is made, the current is shunted around said apparatus, and a mechanism consisting of a fulcrumed lever automatically operated when the door is opened to throw the telephonic apparatus into the circuit by making one and breaking the other of the contacts, and correspondingly operated when the door is closed to reverse the move-

ment of the contacts and shunt the current around the telephone apparatus.

In witness whereof I have hereunto set my hand.

ARTHUR C. ROBBINS.

Witnesses:

S. H. NOURSE,

JESSIE C. BRODIE.