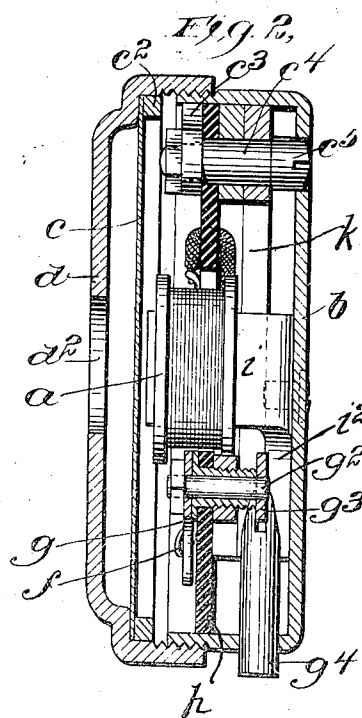
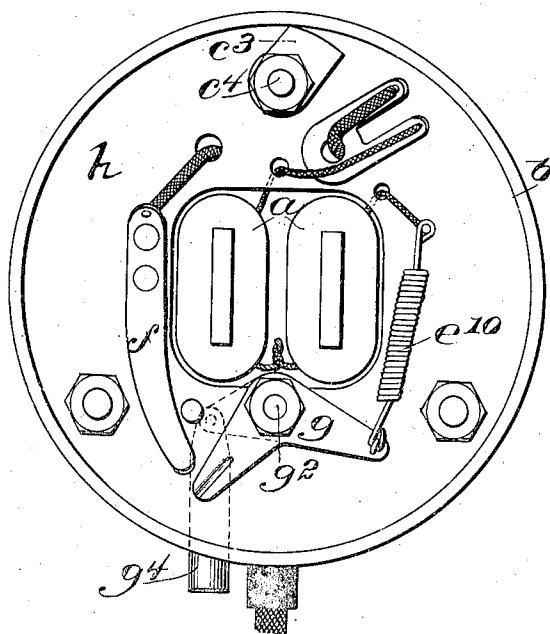
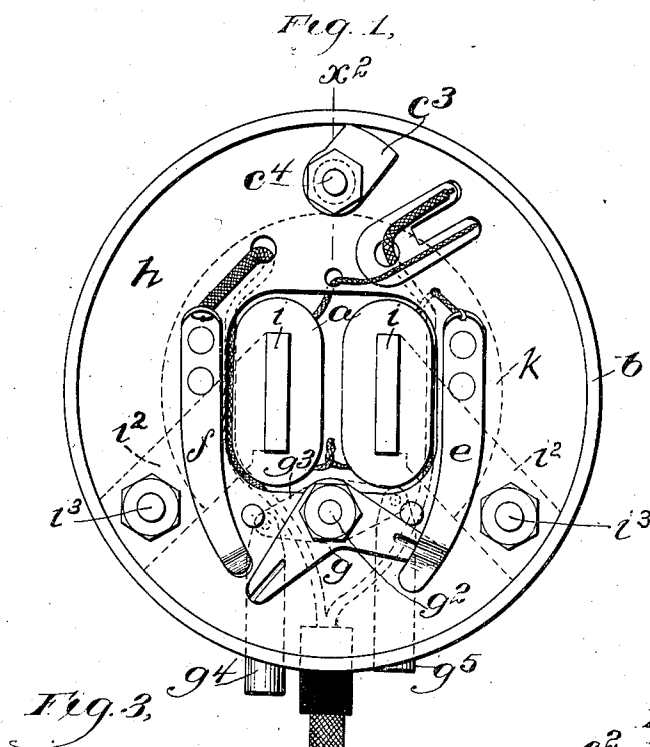


W. F. TAYLOR.
TELEPHONE RECEIVER.
APPLICATION FILED AUG. 8, 1908.

960,731.

Patented June 7, 1910.

2 SHEETS—SHEET 1.



witnesses:
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2 SHEETS—SHEET 2.

Fig. 4.

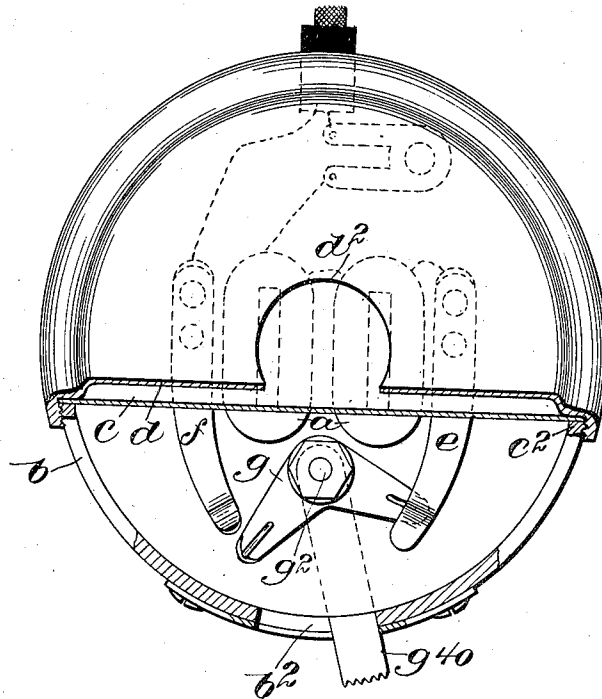
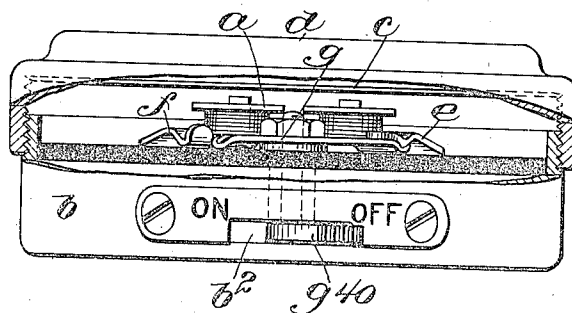


Fig. 5.



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UNITED STATES PATENT OFFICE.

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TELEPHONE-RECEIVER.

960,731.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed August 8, 1908. Serial No. 447,575.

To all whom it may concern:

Be it known that I, WALTER F. TAYLOR, a citizen of the United States, residing in Brookline, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Telephone- Receivers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The present invention relates to a telephone receiver, and is embodied in a receiver of that type commonly used for testing purposes, or sometimes for telephoning, in which type the circuit controller is contained in the receiver itself, instead of being controlled by a switch hook, or similar device.

The purpose of the invention is to simplify the construction so that all the parts are easily accessible for repair when the cap and diaphragm are removed.

The invention further relates to means for locking the diaphragm after the same has been adjusted with relation to the polar extremities of the magnet.

In accordance with the invention, the switch terminals are mounted on a support of insulating material just below the diaphragm and arranged to be bridged by means of a rocker arm provided with a suitable external actuating device located outside of the receiver case, the opening of the switch being manually controlled or automatically controlled, as may be desired. The bridging member of the switch is also located on the outside of the support of insulating material, so that all the working parts are exposed when the cap and diaphragm have been removed.

Figure 1 is a top plan view, on an enlarged scale, of a receiver embodying the invention, with the cap and diaphragm removed from the case; Fig. 2 is a transverse section of the same on line a^2 , Fig. 1, with the cap and diaphragm on; Fig. 3 is a view, similar to Fig. 1, showing a modification; Fig. 4 is a top plan view with a portion of the cap and diaphragm broken away, this view showing a further modification; and Fig. 5 is an elevation of the device shown in Fig. 4, with a portion of the case broken away to show the switch within.

The receiver, embodying the invention, comprises the electro-magnets a contained in an inclosing case b , across the face of which,

as shown in Fig. 2, the diaphragm c is held by the removable cap d , having an opening d^2 in the center. The cap and diaphragm are fastened together, the diaphragm being held in place by a ring c^2 . The cap is screwed on the casing, and the position of the diaphragm with relation to polar extremity of the magnet can thus be adjusted by turning the cap. After the proper adjustment has been made, the cap is prevented from turning by a locking device of any suitable or usual construction, said locking device being herein shown as consisting of a member c^3 radially mounted on a pin c^4 rotatably mounted in the case and having a screw head c^5 at the back of the case, so that it can be turned to force the member c^3 into engagement with case and cap, as shown. The circuits through the magnets are the same as those commonly employed, and need not, therefore, be traced in connection with this description. The circuit terminals, however, in accordance with the invention, consist of springs e and f which are mounted on a support h of insulating material and adapted to be bridged by means of a rocker g in order to close the circuit when the receiver is in use. This rocker g is mounted on a vertical pivot g^2 located between the terminal springs e and f and having a bearing in the support h , so that by moving said rocker on its pivot from the position shown in Fig. 1, one end of the rocker will come in contact with the terminal f without disconnecting the other end of the rocker from the terminal e , so that the two terminals are bridged and the circuit is closed. This rocker g is provided with any suitable actuating device or devices conveniently located outside of the case b .

In the construction shown in Fig. 1, the pivotal support g^2 is provided at its lower end with a cross arm g^3 having push rods g^4 and g^5 pivotally connected with it at opposite ends and extending through openings through the side of the case b . In this construction, when the receiver is to be used, the push rod g^4 is operated, thus bringing the rocker g into position to close the circuit, and when the receiver is no longer in use, the push rod g^5 is operated to break the circuit.

In the construction shown in Fig. 3, the opening of the circuit is automatic, the terminal e being replaced by a spring e^{10} which

tends to hold the rocker *g* in the position shown, except when the push rod *g*⁴ is operated to move the rocker against the stress of the spring. In this case, the person using the receiver must keep the push rod *g*⁴ depressed while the receiver is in use, thus closing the circuit through the spring *e*¹⁰, rocker *g*, and contact member *f*, the circuit, however, being automatically opened as soon as the push rod *g*⁴ has been released.

In Figs. 4 and 5, the actuating member for the rocker *g* is shown as consisting of a swinging radial arm *g*⁴⁰ connected with the pivotal support for the rocker *g*, and projecting outward through an opening or slot *b*² in the wall of the case *b*. In this construction, the switch is opened or closed by a lateral movement of the arm *g*⁴⁰, the on and off position being indicated by the words printed upon the receiver, as shown in Fig. 5.

The magnet cores *i* are provided at the back with lateral extensions *i*² adapted to be supported against the rear wall of the case *b*. The support *h* is secured to the lateral extensions *i*² by means of bolts *i*³, the said support *h* being separated from the extensions *i*² by one or more interposed metallic members *k*, thus affording a space behind the support for the leading-in wires, and at the same time bringing the terminals and the switch which are on the face of the support near the front of the receiver just below the cap.

35 Claims.

1. In a telephone receiver, a casing provided with a cap and diaphragm adapted to be secured to the open end of the casing; an electro-magnet contained in said casing; a

supporting member of insulating material 40 located between the diaphragm and the base of the electro-magnet, thereby affording a space within the casing for the leading-in wires; switch terminals mounted on the outer surface of the said support; a switch 45 also mounted on the outer surface of said support and adapted to bridge the terminals; and an actuating device for said switch extending through the wall of the casing, substantially as described.

2. In a telephone receiver, the combination with the case; of the electro-magnet therein; a support of insulating material surrounding said electro-magnet; switch terminals mounted on the outer surface of said support; a bridging member pivotally connected with said support and located between said terminals; and a push rod connected with said member at one side of the pivotal support thereof projecting outward 60 through an opening in said receiver case.

3. The combination with the receiver case; of the screw-threaded cap and the diaphragm secured in said cap; the electro-magnet; a locking member consisting of an arm adapted to be forced against the inner wall of the casing to hold the cap in its adjusted position; and a rotating actuating member from which said arm extends radially, said member being accessible at the 70 outside of the case.

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

WALTER F. TAYLOR.

Witnesses:

M. E. COVENEY,
JAMES J. MALONEY.