

C. M. HARTNETT.  
 TELEPHONE TRANSMITTER CUT-OUT.  
 APPLICATION FILED MAY 31, 1910.

985,169.

Patented Feb. 28, 1911.

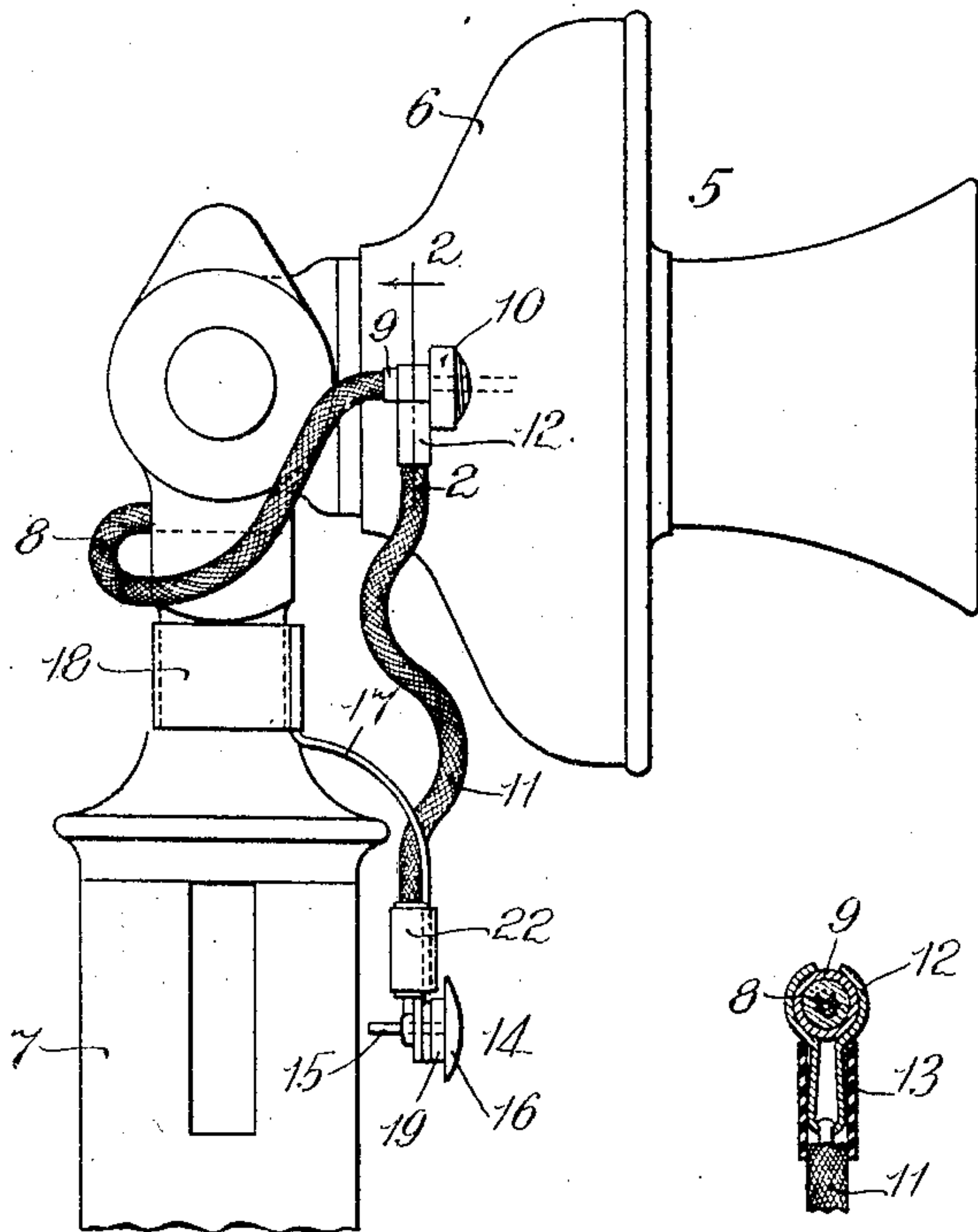


Fig. 1.

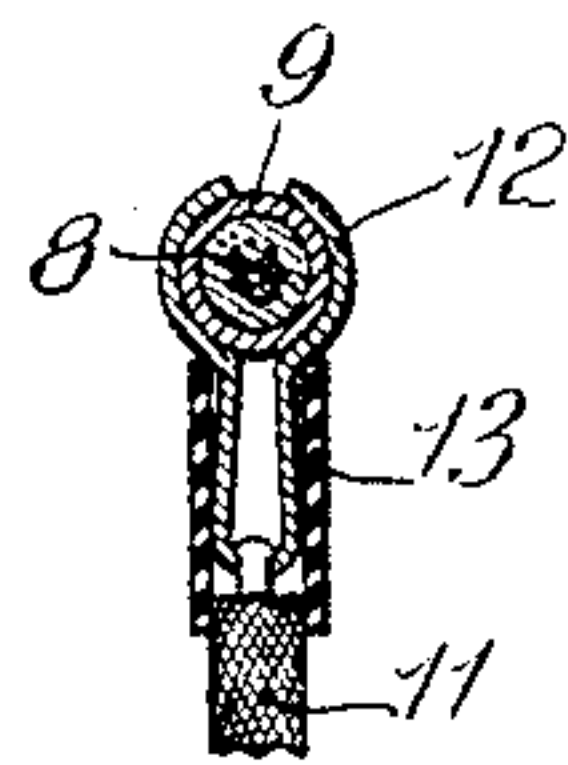


Fig. 2.

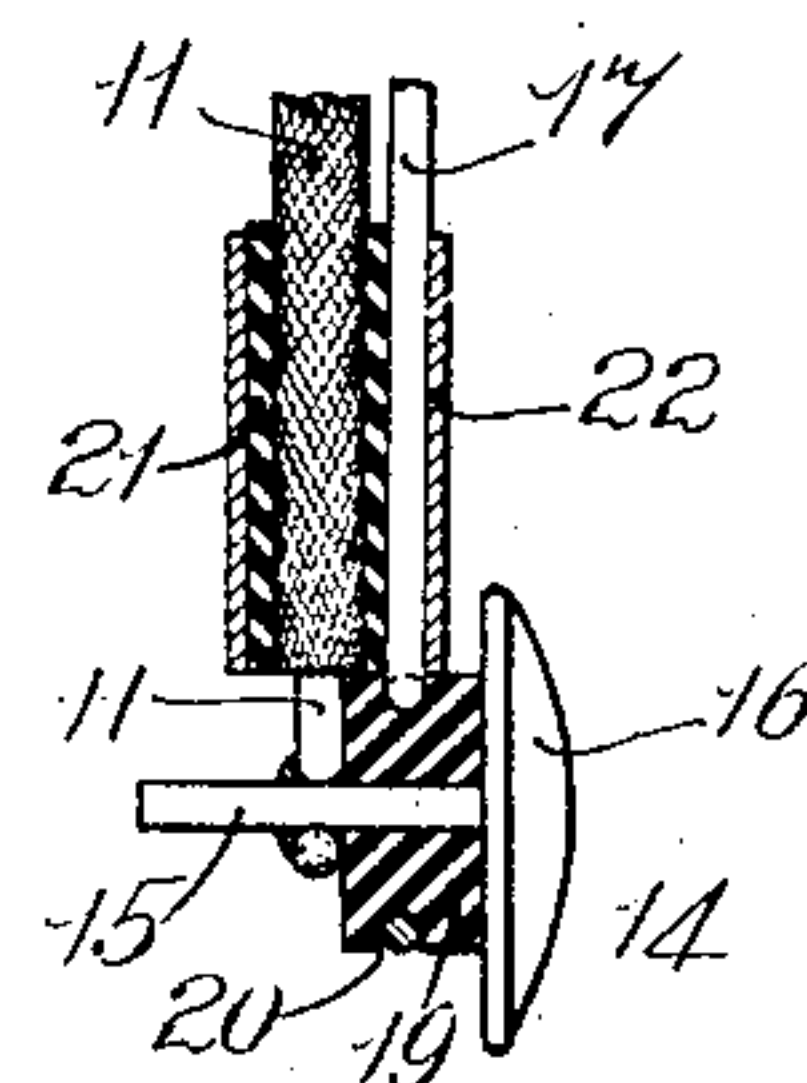


Fig. 3.

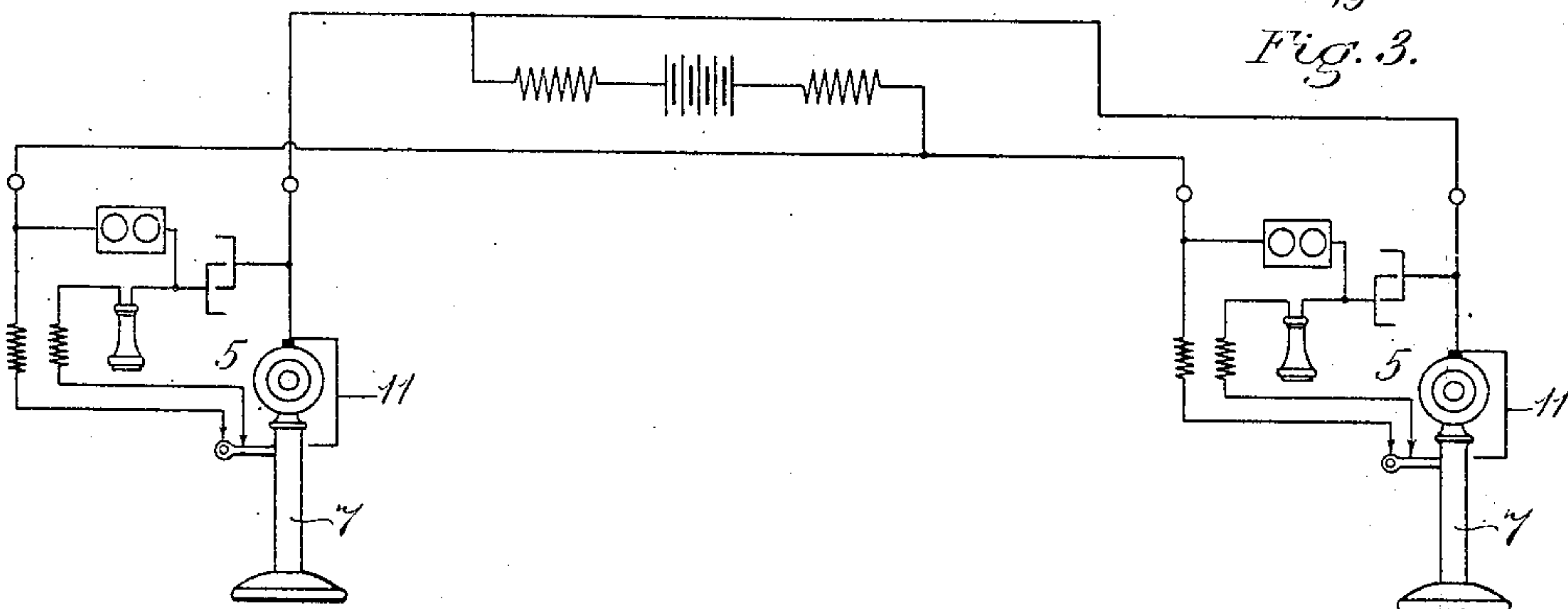


Fig. 4.

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# UNITED STATES PATENT OFFICE.

CHRISTOPHER M. HARTNETT, OF MALDEN, MASSACHUSETTS.

TELEPHONE-TRANSMITTER CUT-OUT.

985,169.

Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed May 31, 1910. Serial No. 564,221.

*To all whom it may concern:*

Be it known that I, CHRISTOPHER M. HARTNETT, of Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Telephone-Transmitter Cut-Outs, of which the following is a specification.

This invention relates to improvements in telephones, and the object is to provide means whereby the transmitter may be short-circuited at will so that when the telephone is in use the user may temporarily render the transmitter inoperative while the receiver is still in circuit, the purpose being to cut off from the party at the other end of the line all sounds at the transmitter which is thus rendered inoperative.

The object is further to provide a desk set telephone instrument having transmitter short-circuiting means embodying a spring-supported button located adjacent to the usual metallic pillar which supports the transmitter, the button being arranged to be pressed into contact with said pillar by the thumb of the hand which holds the pillar.

To these ends, the invention consists broadly in a telephone having means whereby the transmitter may be short-circuited at will.

The invention consists further in a telephone having a metallic support for the transmitter, which support forms one of the conductors of the circuit and another conductor adapted to be moved into and out of contact with said support and electrically connected to the transmitter, whereby the transmitter may be short-circuited or, in other words, cut out of operation at will.

The invention finally consists in the novel features of construction and in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims.

Referring to the drawings: Figure 1 is an elevation of a portion of a usual and well known desk set telephone instrument to which is applied a transmitter cut-out embodying my invention. Fig. 2 is an enlarged sectional view taken on line 2-2 of Fig. 1, looking toward the left. Fig. 3 is a central vertical sectional view of the push button showing its method of attachment with its spring support and with the conductor which leads to the transmitter. Fig. 4 is a diagram showing a pair of telephone

instruments connected in circuit in the usual and well known manner each having connected thereto a transmitter cut out.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is a telephone transmitter of usual and well known construction having a metallic casing 6 supported upon a metallic column 7 in the usual and well known manner. As is well known to those skilled in the art, one of the terminals of the transmitter is grounded upon its metal casing, while the other has connected thereto an insulated conductor which passes into the interior of the supporting column, this conductor being indicated at 8 in the drawings and provided with a metallic tip 9 extending into the transmitter casing 6 through an insulating bushing 10. To this metallic tip an insulated conductor 11 is electrically connected by a grip 12 embracing said tip and secured to said conductor in any suitable manner as, for example, by soldering, as shown in Fig. 2, the connection being preferably covered by a rubber sleeve 13.

The lower end of the conductor 11 is electrically connected to a push button designated generally by the numeral 14, said push button having a metallic contact member 15 to which said conductor is attached in any suitable manner, as by soldering, as shown in Fig. 3. This contact member may, in practice, consist of a tack provided with a head 16. The push button 14 is yieldingly supported upon the pillar 7 by any suitable means such, for example, as a spring 17 preferably formed of spring wire suitably secured at its upper end to a clamping ring 18 surrounding said column, the lower end of said spring being bent to form an eye which surrounds an insulating sleeve 19 provided with an annular groove 20 in which said spring is located, said sleeve surrounding the contact member 15 between the conductor 11 and the head 16.

The conductor 11 is provided adjacent to its lower end with a rubber sleeve 21 surrounding the same and said conductor is secured to the spring 17 by a suitable metallic sleeve 22 surrounding said conductor and said spring. The push button 14 is located adjacent to the enlarged part of the metallic column 7 so as to be readily engaged by the thumb of the hand which holds the column in the usual manner and



the contact member 15 is normally held out of contact with said column by the spring 17, as shown in Fig. 1.

When the telephone is in use, the user may short-circuit the transmitter at will by pressing the push button 14 to carry the contact member 15 into contact with the column 7, thus rendering the transmitter inoperative while the receiver is still in circuit and in this manner cutting off from the party at the other end of the line all sounds at the transmitter which is thus rendered inoperative.

The instruments at the two stations will, of course, be connected by the customary and well known wiring, as shown in diagram in Fig. 4, in which it is evident that the metallic casing of the transmitter and the metallic column which supports the same constitute a conductor of the circuit, one of the circuit wires being connected to the transmitter, but insulated from its metal casing.

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

1. A telephone having, in combination, a transmitter, a metallic support for said transmitter, said support forming one of the conductors of said circuit, and a conductor adapted to be moved into and out of contact with said support whereby said transmitter may be short-circuited at will.

2. A telephone having, in combination, a transmitter, a metallic support for said transmitter, a conductor connected to said transmitter but insulated from said support, a receiver in circuit with said transmitter through said conductor and said support, and means adapted to be operated at will to

electrically connect said conductor to said support thereby to short circuit said transmitter.

3. A telephone having, in combination, a transmitter, a metallic support for said transmitter, a conductor connected to said transmitter but insulated from said support, a receiver in circuit with said transmitter through said conductor and said support, a second conductor adapted to be operated at will to electrically connect the first-mentioned conductor to said support thereby to short circuit said transmitter, and yielding means acting to normally hold said second conductor out of electrical connection with said support.

4. A telephone instrument having, in combination, a transmitter, a conductor connected to said transmitter, a metallic support for said transmitter, a contact member, a spring on which said contact member is supported normally out of contact with said support, and a second conductor connecting said member to the first-mentioned conductor.

5. A telephone instrument having, in combination, a transmitter, a conductor connected to said transmitter, a vertical metallic pillar constituting a support for said transmitter, a contact member, a spring on which said contact member is supported normally out of contact with said support, said member being insulated from said spring and a second conductor connecting said member to the first-mentioned conductor.

In testimony whereof I have affixed my signature, in presence of two witnesses.

CHRISTOPHER M. HARTNETT.

Witnesses :

THOMAS P. RILEY,  
KATHERINE F. REILLY.