Oct. 11, 1932. J. F. MITCHELL 1,881,834

TRANSMITTER CUT-OUT SWITCH

Filed March 24, 1931

Fig. 1.

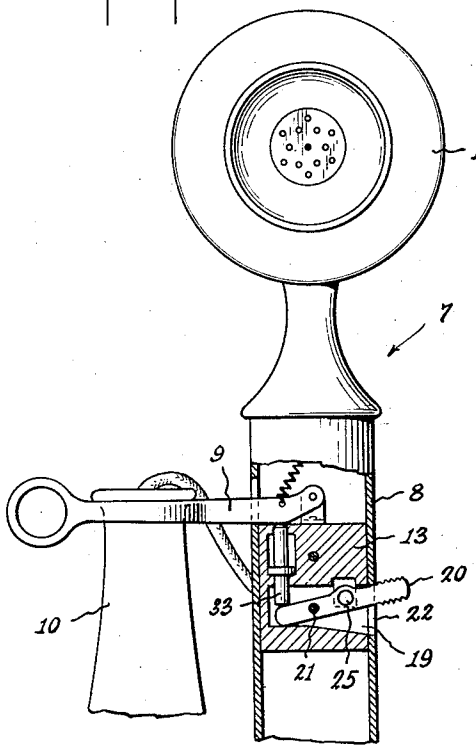


Fig. 2.

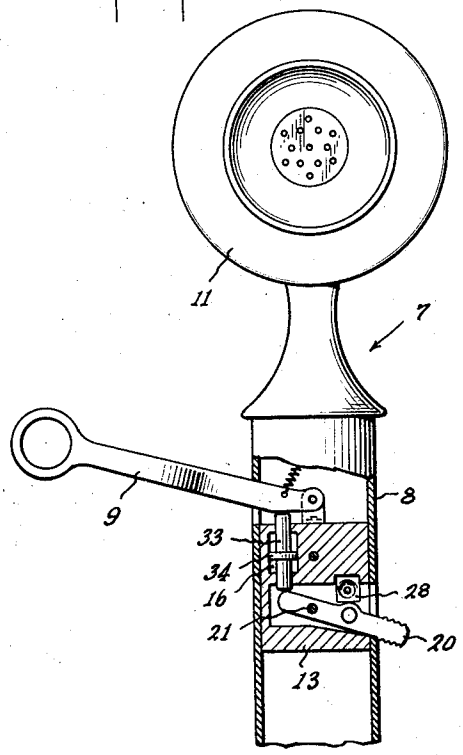


Fig. 3.

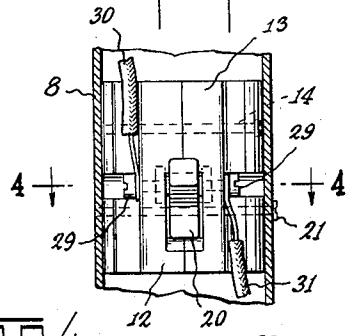


Fig. 5.

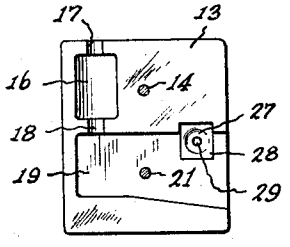


Fig. 4.

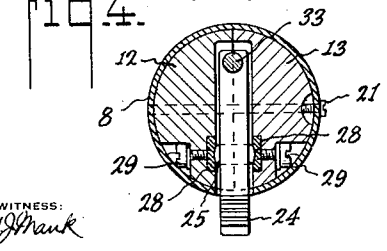
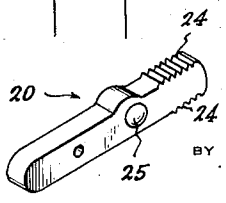


Fig. 6.



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WITNESS:

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UNITED STATES PATENT OFFICE

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TRANSMITTER CUT OUT SWITCH

Application filed March 24, 1931. Serial No. 524,956.

This invention relates to telephones and more particularly it has reference to means operable by a subscriber for cutting out or cutting in the transmitter circuit of the telephone.

When using a telephone it is sometimes found necessary to interrupt the conversation with the listener at the other end of the line in order to converse with another person. In such an instance it is sometimes desirable to prevent the person at the other end of the line from hearing the conversation, and to accomplish this it has heretofore been the practice of the subscriber to cover the transmitter with his hand. A more convenient and more presentable means for accomplishing the same result is an object of this invention.

More specifically it is an object of the invention to provide means, such as a switch for example, operable by the subscriber to accomplish the above mentioned result.

Another object of the invention is the provision of means whereby the mentioned switch may be automatically returned to normal position in case the subscriber forgets to return it to such position.

Other objects will be appreciated by those skilled in the art upon reading the following specification.

The invention will be fully and comprehensively understood from a consideration of the following detailed description when read in connection with the accompanying drawing which form part of the application, with the understanding, however, that the improvement is capable of extended application and is not confined to the exact showing of the drawing nor to the precise construction described and, therefore, such changes and modifications may be made therefrom as do not affect the spirit of the invention nor exceed the scope thereof as expressed in the appended claims.

In the drawing:

Fig. 1 is a fragmentary front view of a telephone partly in section including the apparatus of the present invention and showing the telephone when not in use.

Fig. 2 is a view similar to Fig. 1 when the telephone is in use and the transmitter circuit is cut out by the structure of my invention.

Fig. 3 is an enlarged view of a switch shown in Figs. 1 and 2.

Fig. 4 is a horizontal section taken on line 4—4 of Fig. 3.

Fig. 5 is a front view of part of the body of the switch shown in Figs. 1, 2 and 3; and

Fig. 6 is a perspective view of a lever forming part of the switch shown in the previous figures.

Referring to the drawing for a more detailed description thereof, numeral 7 indicates a telephone of the usual construction comprising a tubular standard 8, a receiver hook 9, a receiver 10, and a transmitter 11. According to my invention as shown in the drawing, I provide a switch for opening and closing the transmitter circuit, such a switch being shown as comprising two semi-cylindrical members 12 and 13 held together by a transverse screw 14 and together forming the body of the switch. The semi-cylindrical members 12 and 13 are disposed within the tubular standard 8 and are preferably held in place or fixed through the use of the pin 21 hereinafter referred to. A vertical recess 16 having reduced end portions 17 and 18 is formed in the semi-cylindrical members 12 and 13 and a horizontal recess 19 is also formed therein, the recess 19 communicating with the reduced portion 18 of the recess 16.

A switching lever 20, shown in perspective in Fig. 6, is pivotally mounted in the members 12 and 13 by means of a transverse pin 21, the inner part of the lever being within the recess 19 while the outer part extends through an aperture 22 in the tubular standard 8. The upper and lower surfaces of the exterior part of the lever 20 are provided with ribs 24. A transverse metallic plug 25

is secured to and extends through the lever 20 and has rounded projections extending slightly beyond the lateral face thereof. The ends of the plug are adapted to fit into recesses 27 formed on the inner faces of spring contactors 28 positioned in the semi-cylindrical members 12 and 13. The contactors 28 are connected with metal screws 29 which pass through the members 12 and 13 and form terminals to which wires 30 and 31 respectively are connected, these wires forming part of a transmitter circuit connected to the transmitter 11.

Positioned in the recess 16 is a pin 33 provided with an annular flange 34, the upper end of the pin extending through the restricted portion 17 and the lower end of the pin extending through the restricted portion 18 of the recess 16. It will readily be understood that the annular flange 34 retains the pin within the recess 16. The upper end of the pin is adapted to contact with the receiver hook 9 while the lower end of the pin is adapted to contact with the inner end of the lever 20, for purposes presently to be described.

When it is desired to open the transmitter circuit the outer end of the lever 20 is pressed downwardly to a position shown in Fig. 2. The plug 25 is then out of contact with the contactors 28 whereby the transmitter circuit is opened. When the outer end of the lever 20 is depressed the inner end pushes the pin 33 upwardly to the position shown in Fig. 2 against the raised receiver hook. In case the user of the telephone forgets to return the lever 20 to normal position, the receiver hook 9 in its downward movement after the receiver is placed thereon, forces the pin 33 downwardly against the inner end of the lever 20 to close the transmitter circuit.

What is claimed as new is:

1. A cut out switch for the purpose indicated comprising, in combination with a desk telephone and the receiver hook therefor having means for elevating it when the receiver is removed, a pair of members disposed in the telephone standard below the receiver hook and carrying contacts included in the transmitter circuit, a lever disposed between said members and having a pivotal mounting in the same and a contact bridging the first said contacts in one position of the lever, the latter having a finger actuating extremity protruding from the standard to shift its contact out of bridging relation with the first said contacts, and operative connections between the receiver hook and said lever for bringing the latter into contact bridging relation when the receiver is disposed on its hook.

2. A cut out switch for the purpose indicated comprising, in combination with a desk telephone and the receiver hook therefor having means for elevating it when the receiver is removed, a pair of members disposed in the telephone standard below the receiver hook and carrying contacts included in the transmitter circuit, a lever disposed between said members and having a pivotal mounting in the same and a contact bridging the first said contacts in one position of the lever, the latter having a finger actuating extremity protruding from the standard to shift its contact out of bridging relation with the first said contacts, and operative connections between the receiver hook and said lever for bringing the latter into contact bridging relation when the receiver is disposed on its hook, the last said means comprising an element slidably mounted in said members with one end in engagement with said lever remote from the finger actuating extremity and the other end in the path of said receiver hook.

In testimony whereof I hereby affix my signature.

JOHN F. MITCHELL.