

(No Model.)

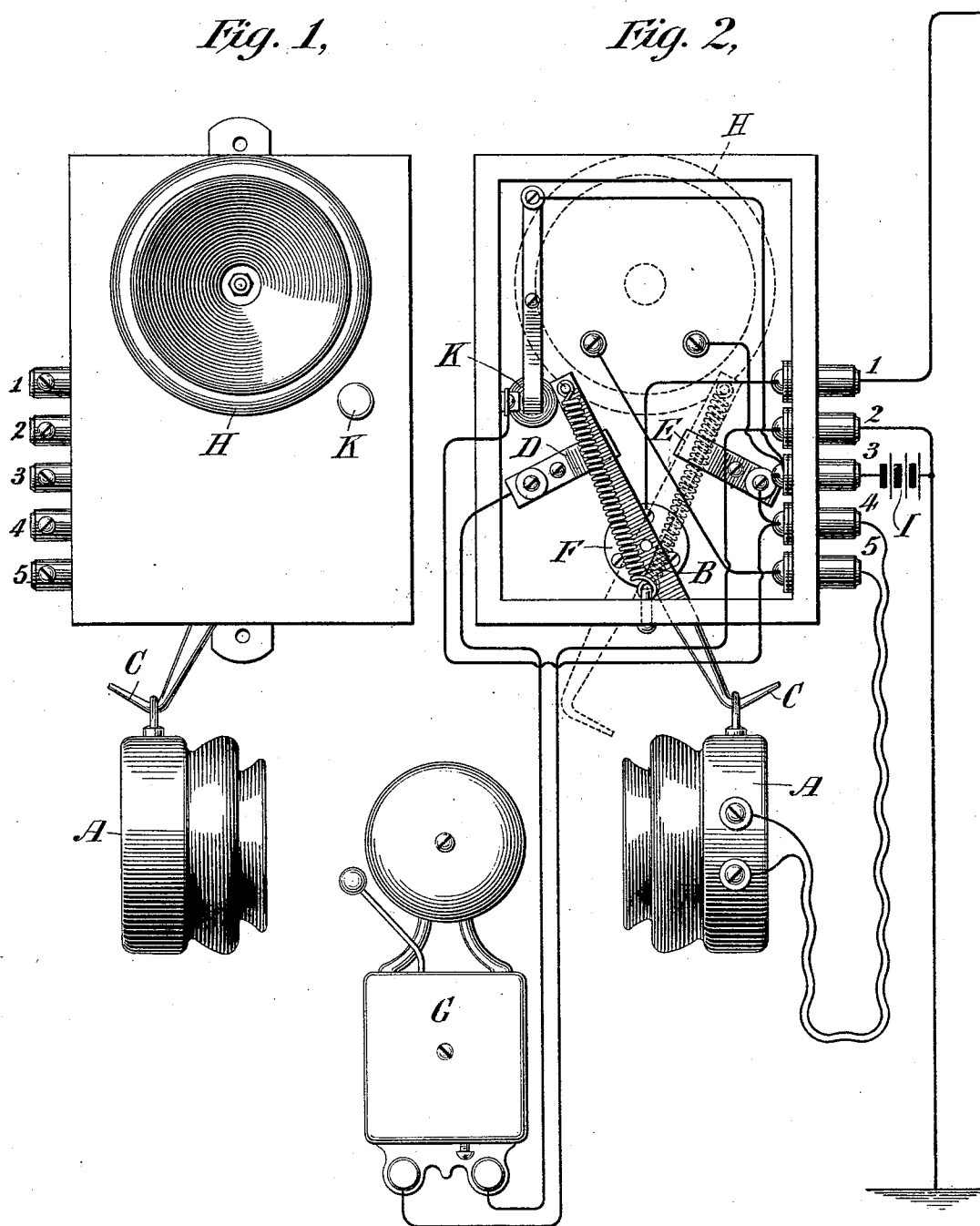
F. R. COLVIN.
TELEPHONE SWITCH.

No. 517,263.

Patented Mar. 27, 1894.

Fig. 1,

Fig. 2,



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK R. COLVIN, OF NEW YORK, N. Y.

TELEPHONE-SWITCH.

SPECIFICATION forming part of Letters Patent No. 517,263, dated March 27, 1894.

Application filed December 6, 1893. Serial No. 492,891. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. COLVIN, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Telephony, of which the following is a specification.

This invention relates to telephony, its object being to produce a cheap and efficient station outfit.

In carrying out the invention, I place a call-receiving apparatus in normally closed relation to the line terminals, and provide a switch, which in its normal position cuts out the talking apparatus, and in its abnormal position cuts in said talking apparatus, and places in shunt relation thereto call-sending apparatus. This switch is so constructed that in its normal position, that is to say, when the call-receiving apparatus is in operative relation to the line terminals, it will form a support for a telephone, but in its abnormal position it will not act as a support for the telephone. By this provision, since the call-sending apparatus is in operative condition only when the switch is in an abnormal position, it is necessary that a subscriber in sending a call shall put the switch in a position where it will not act as a support for the telephone, thus rendering it obligatory on the part of the operator in disposing of the telephone when the conversation is ended to set the switch in its normal position.

The several features of novelty of the invention will be more particularly hereinafter described, and will be definitely indicated in the claims appended to this specification.

In the accompanying drawings, which illustrate the invention, Figure 1 is a front elevation of an instrument embodying my improvements, and Fig. 2 is a rear elevation with the back removed showing in diagram the circuit connections.

A represents a telephone receiver provided with a hook or otherwise arranged so that it may be attached to or supported upon a projecting arm or extension of a switch-lever B. In the instance shown in the drawings the projection is provided with a hook C over which an eye attached to the telephone may be placed. One end of the switch-lever co-

operates with two contacts D, E, so arranged that when the contact D is engaged the supporting arm or hook will be in a position to support the telephone, but when the contact E is engaged the support or hook will be tilted downwardly as indicated in dotted lines in Fig. 2, in which position the telephone cannot be hung upon the hook.

The switch shown in the drawings is provided with a spring, one end of which is fastened to the upper end of the lever, and the other end of which is secured to the frame at a point in the same vertical plane as the switch pivot. The line terminal 1 is electrically connected with the pivot of the switch-lever through a metallic support F and the lever is preferably made of metal. The normal contact D is electrically connected with one terminal of a call-receiving device G, such, for example, as an electric bell, the other terminal of which is connected with a binding-post 2 forming or connecting with the other line terminal. The contact E is electrically connected with binding-post 4 with which one terminal of the telephone is connected, the other terminal of the telephone connecting with a transmitter H, and thence with binding-post 3 between which and one of the line terminals is included a battery I. In shunt relation to the talking circuit, which is included between the binding-posts 3 and 4, is a normally open call-sending branch including a push-button K. A binding-post 5 may be conveniently arranged so as to form a connector for one terminal of the telephone and transmitter respectively. It will thus be seen that in the normal condition of the parts, such as illustrated in Fig. 2, the switch acts as a support for the telephone, and the bell or other call-receiving device is in closed relation to the line terminal, so that if a distant subscriber operates his instrument and sends an impulse of current over the line, the call-receiving device G will notify the called subscriber; but it will be impossible for the called subscriber to place either his call-sending apparatus in condition for operation so that he may reply to the signal, or to communicate telephonically with the distant subscriber, until his switch shall have been shifted from the contact D upon which it normally rests

to the contact E. It will therefore be necessary for him to shift the switch to the position indicated in dotted lines in Fig. 2 before telephonic inter-communication can be established. The transmitter H, as shown in the drawings, is a carbon transmitter which varies the strength of the current furnished by the battery I, this current passing to line through the receiver A. It is evident, however, that the instrument A might be a magneto instrument and the carbon transmitter could be omitted without in any way disturbing the functions of the switch. When, after the conversation has been concluded, the operator desires to restore the telephone, it will be noted that he cannot do so until the switch first shall have been shifted to a position which puts the call-receiving instrument in closed relation to the line and cuts out the talking apparatus. This provision is of great importance in practice by preventing a careless operator from leaving the line in a condition in which the call-receiving apparatus is not in condition to perform its duty. While I have illustrated in the drawings a convenient form of support for the telephone, namely, the hook C, it will be obvious to those skilled in the art that the construction might be widely varied, the only important desideratum being that when the switch is in a normal position the telephone will be provided with a suitable support, and that this support shall be rendered incapable of service when the switch has been thrown to its abnormal position.

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

1. A telephone switch provided with a tilting hook or support for the telephone, the free end of the hook normally pointing upward, the angle of tilt to shift the switch to its abnormal position being sufficient to cause the hook to point downward to shed the telephone.

2. A station telephone apparatus comprising a switch normally connecting the line terminals with a call-receiving instrument, call-sending devices connected with the line terminals in an abnormal position of the switch, and a telephone support connected to the switch, said support being rendered inoperative when the switch is in its abnormal position.

3. A station telephone apparatus comprising a switch normally connecting a call-receiving instrument with the line terminals, talking instruments connecting with the line terminals through a normally open switch contact, and a normally open shunt around the talking instrument including a circuit-closer and battery.

In testimony whereof I have hereunto subscribed my name this 2d day of December, A. D. 1893.

FRANK R. COLVIN.

Witnesses:

ROBT. H. READ,
E. C. GRIGG.