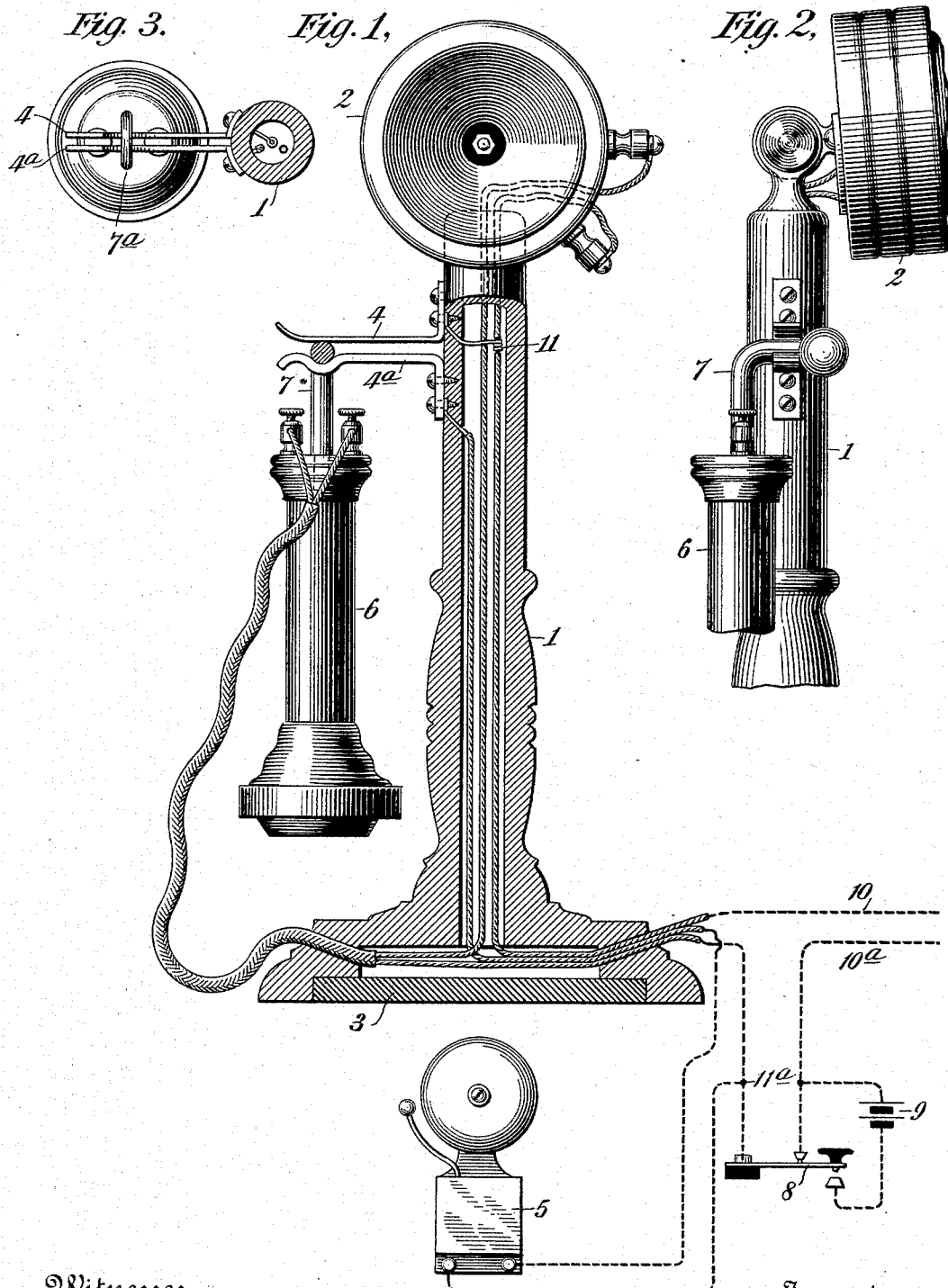


(No Model.)

F. R. COLVIN.
TELEPHONY.

No. 522,707.

Patented July 10, 1894.



Witnesses
C. E. Ashley
H. W. Lloyd

Inventor
Frank R. Colvin
By his Attorneys
Pease & Co.

UNITED STATES PATENT OFFICE.

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

TELEPHONY.

SPECIFICATION forming part of Letters Patent No. 522,707, dated July 10, 1894.

Application filed May 22, 1894. Serial No. 512,069. (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, the object being to provide a simple and inexpensive device for cutting out the bell or other calling instrument when the telephone is in use.

In carrying out my invention I mount upon the telephone support two contacts, which, when the telephone is in its normal position, are bridged and close the bell or other calling circuit, but when the telephone is removed open the bell branch and leave only the telephonic apparatus in circuit.

The preferable form of carrying out the invention consists in placing the bell in a shunt around the talking apparatus, such shunt including two independent contact points which are electrically bridged when the telephone is upon its support.

The novelty of the invention will be more particularly hereinafter explained and will be definitely indicated in the claim appended to this specification.

In the accompanying drawings, which illustrate the invention, Figure 1 is a vertical elevation, partly in section, of a desk-instrument embodying my improvements. Fig. 2 is a partial elevation on a plane at right angles to that indicated by Fig. 1; and Fig. 3 is a top sectional view of a modification.

1 represents a stand, on the top of which is mounted a transmitter 2, preferably of the form described in my Patent No. 513,305, dated January 23, 1894. The stand is loaded with a suitable weight 3 at the bottom to render it a stable support for the apparatus. The stand is longitudinally perforated to form a duct for the wires leading to the several parts of the instrument. Upon the side of the instrument are mounted two conducting arms 4, 4^a, forming the terminals of a normally closed shunt including a bell or other call-receiving device 5. Mounted on the receiver 6 is a metallic projection 7 adapted to bridge the contacts 4, 4^a when the telephone is in its normal position, as indicated in the drawings.

The manner in which this electrical bridge is completed may be varied in a number of ways; for example, in Figs. 1 and 2 the bridge is completed by forcing a metal projection 7 between the contact arms 4, 4^a, which are thereby electrically connected; in Fig. 3 the arms 4, 4^a are bridged by a metallic ring 7^a connected to the telephone, so that when the ring is slipped over the arms they are electrically bridged. The same end might be effected by rendering the upper arm 4, as in Fig. 1, sufficiently elastic so that the weight of the telephone would depress it and bring it in contact with the lower arm 4^a when said telephone is placed upon the upper arm. I prefer, however, not to depend upon the weight of the telephone for completing the bridge, since in some forms of instrument the weight is comparatively little and would produce a weak and high resisting contact. A spring calling key 8 normally closing the line upon the bell and telephonic apparatus is provided with an abnormal contact by which a calling battery 9 may be thrown upon the line when the key is depressed.

In the form of apparatus illustrated, where a transmitter of the kind referred to is employed, the latter is in series relation to the telephone and line. It will be understood, however, that if an induction coil were employed, the circuit connections should be suitably altered in a way obvious to those skilled in the art. In the form shown, one side of the line 10 leads through the transmitter and receiver in series, and then returns to the side 10^a of the line by way of key 8. The bell or other call-receiving instrument is placed in a shunt around the transmitter and receiver at the points 11, 11^a, this shunt being opened at an intermediate point and terminating in the arms 4, 4^a firmly mounted on the stand 1. These points, as will be evident upon an inspection of the drawings, are bridged when the telephone is in its normal position, so that the bell shunt is closed, and both the telephonic apparatus and the call-receiving apparatus are in closed relation to the line. If, in this condition, the key 8 of a distant station be depressed, so as to throw a battery similar to 9 at said station upon line, current will pass in multiple arc through the tele-

phone apparatus and call-receiving apparatus at both stations and the call will be sounded. The operator at the called station will then remove his telephone from its support, thus
5 opening the bell shunt, so that while talking only the telephonic apparatus will be in circuit. A similar action by the calling operator will open his bell shunt, when the two operators may intercommunicate without ex-
10 perienceing any disturbance from the bells.

The batteries 9 at the two stations should be so connected that when both keys are depressed they will act in series relation and reinforce one another, so that both operators
15 may hold down their keys and intensify the strength of the talking current.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

A telephone station outfit comprising a tele- 20 phone in permanently closed relation to the line terminals, and a call-receiving instrument in shunt relation to the telephone, said shunt including contacts electrically bridged by a contact piece carried by the telephone, 25 and removable therewith to open the shunt when the telephone is removed.

In testimony whereof I have hereunto subscribed my name this 21st day of May, A. D. 1894.

FRANK R. COLVIN.

Witnesses:

ROBT. H. READ,
W. R. HUTCHINS.