

(No Model.)

T. F. AHERN.
TELEPHONE.

No. 601,865.

Patented Apr. 5, 1898.

Fig. 1.

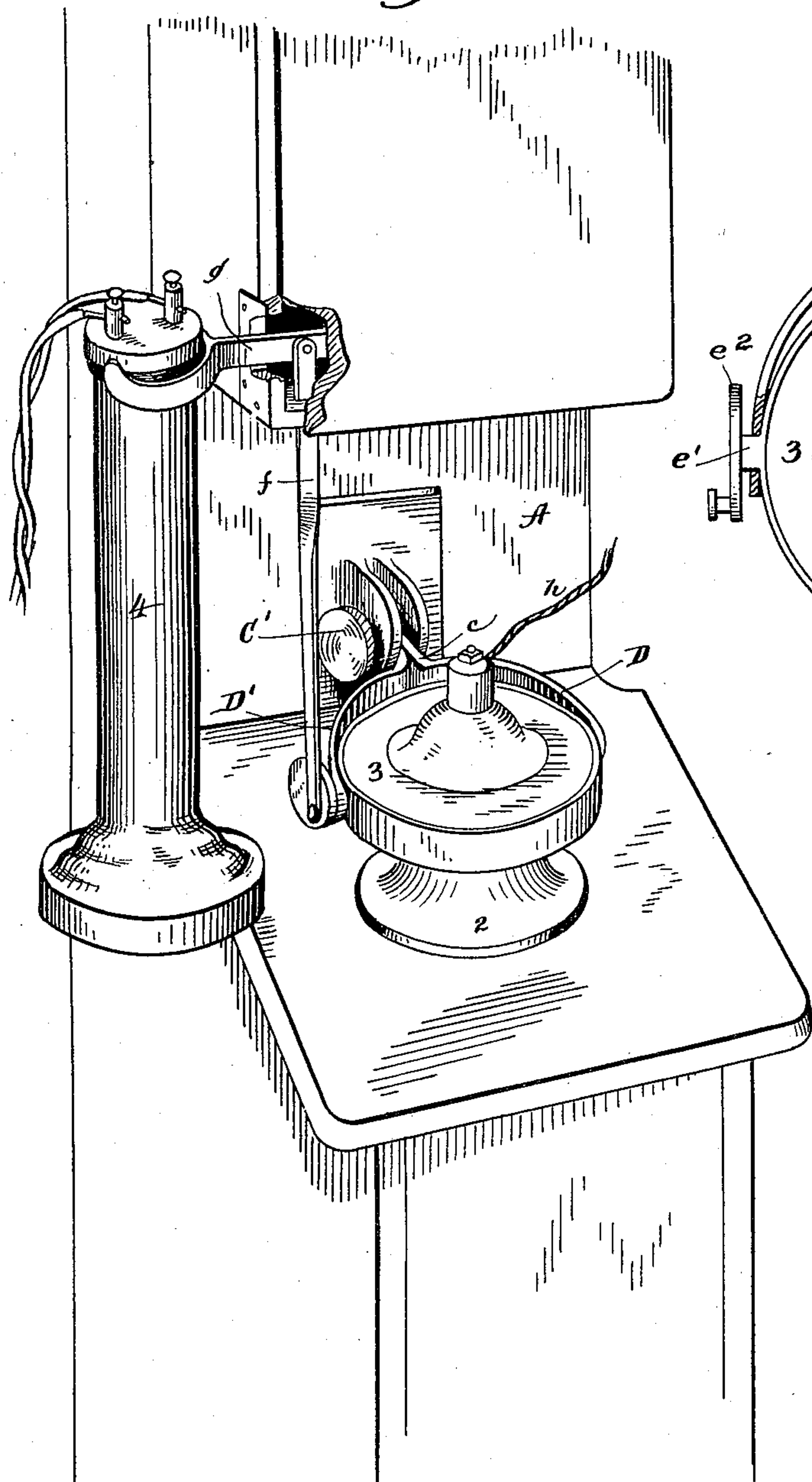
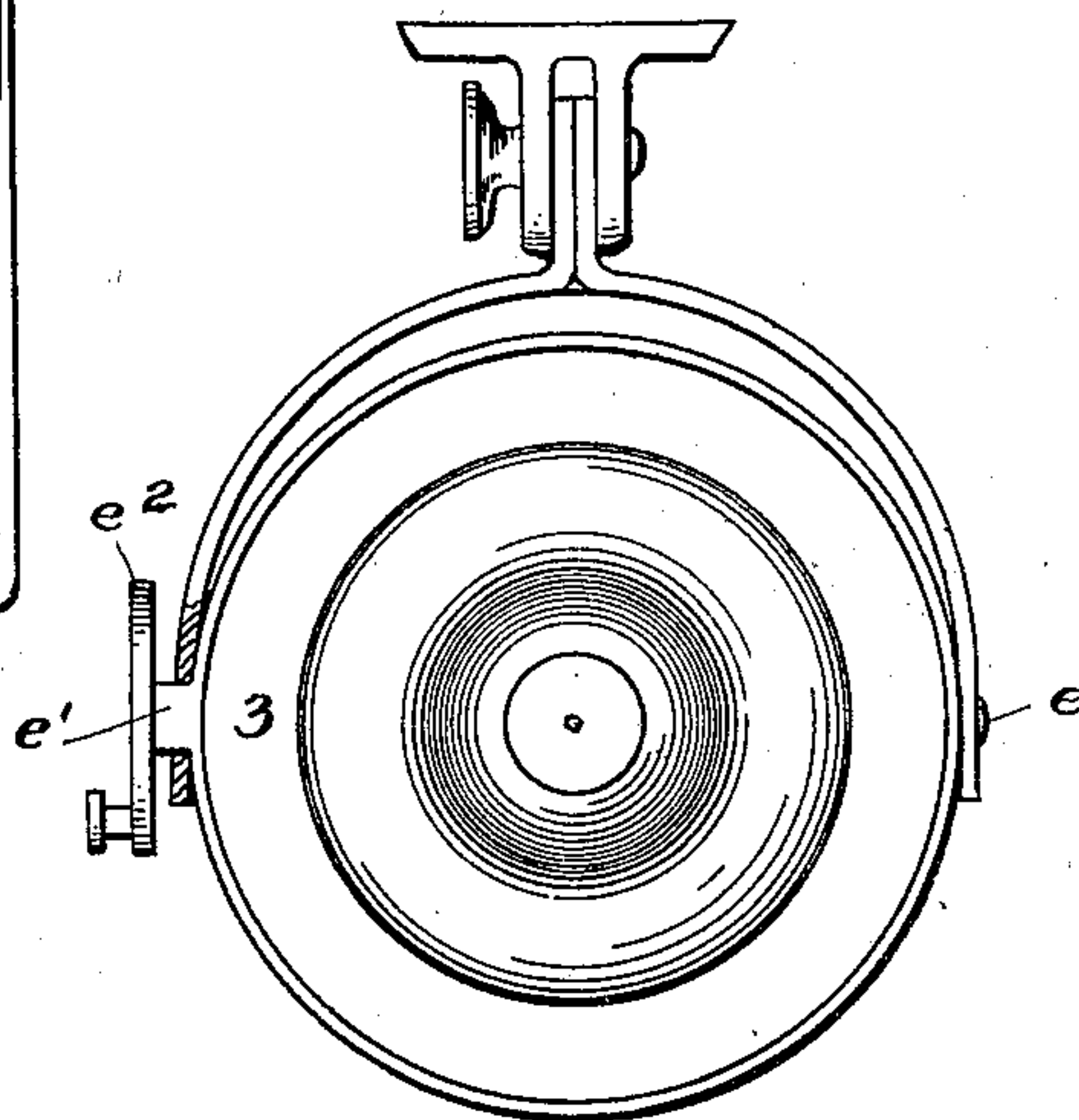


Fig. 2.



WITNESSES

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THOMAS F. AHERN, OF DETROIT, MICHIGAN.

TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 601,865, dated April 5, 1898.

Application filed April 26, 1897. Serial No. 633,917. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. AHERN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Telephones; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to that class of telephones in which the loudness of the sound is increased by the use of a quantity of small pellets or dust of carbon so arranged in the transmitter as to vary the intensity of the electrical current passing through it. In telephonic transmitters in which carbon is used for this purpose it has been found that after a time the carbon becomes packed together more or less and ceases to produce the desired result, or, at least, the desired result is not produced as effectively after the carbon has become packed as it is when the carbon is fresh and loose; and the object of this invention is to produce a telephonic transmitter with the carbon particles arranged in it and to arrange for the repeated disturbance of the carbon particles, so that they are kept in their loose and unpacked condition at all times.

In the drawings, Figure 1 shows the carbon-transmitter and its attachments in perspective. Fig. 2 shows a plan of the transmitter and the fork on which it is suspended.

A indicates the wall-board or base on which the transmitter is held.

C indicates a pair of unequal lugs between which, by an adjusting-screw C', is held the shank c of a fork. The two branches D and D' of the fork constitute a substantial semicircle of a size slightly larger than the periphery of the body part 3 of the telephone-transmitter. The branches D and D' are furnished with bearings at the ends, and in the bearings engage trunnions e and e', that extend sidewise from the body part 3 of the transmitter. One of the trunnions e' is provided on its extending end with a crank e², with which engages a link f, that reaches upward to the arm g. The arm g is the arm commonly found on telephones on which is suspended the receiving-telephone 4 and which is drawn upward when the receiving-telephone 4 is not

hung to it by a spring and drawn downward against the tension of the spring when the receiving-telephone 4 is hung up on the form which terminates it. This arm g is in common use in the majority of telephones, and its functions are well known and form no part of this invention, this invention merely seeking to utilize the arm g, which is always actuated when the telephone is used for the purpose of connecting the arm with the telephone-transmitter, it thereby causing the telephone-transmitter to move in unison with the arm g. The link f is so arranged with respect to the crank e² and the crank e² is so arranged with respect to the body of the telephone-transmitter that the mouth 2 of the transmitter is turned downward whenever the arm g is drawn downward by the weight of the receiving-telephone 4; and the mouth 2 of the transmitter is turned to a vertical position and into position to be used as a transmitter whenever the receiving-telephone 4 is lifted off from the arm g. Thus at each time of use the transmitter is turned with a quick motion through a quarter of a circle, and this quick motion serves to agitate the carbon within the transmitter and prevent it from becoming impacted.

The transmitter is connected by a flexible cord h to the line-wire, and this flexible cord permits the motion spoken of without interfering with the transmission of the message.

What I claim is—

1. A transmitter suspended on a horizontal axis in a plane in or parallel to the diaphragm, so journaled that the speaking-tube is normally downward, and means connecting the movable receiver-hook with the transmitter, compelling the latter to rotate so that the diaphragm is in substantially a perpendicular plane when the receiver is detached from the hook, substantially as and for the purpose described.

2. In a rotating transmitter, the combination of a spring-hook, a receiver, a link connecting the hook to a crank on a rotating transmitter and a transmitter hung on a horizontal axis in a plane in or parallel to the diaphragm, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

THOMAS F. AHERN.

Witnesses:

R. A. PARKER,

MARION A. REEVE.