

(No Model.)

A. W. ROSE.
Electric Speaking Telephone.

No. 231,362.

Patented Aug. 17, 1880.

Fig. 1,

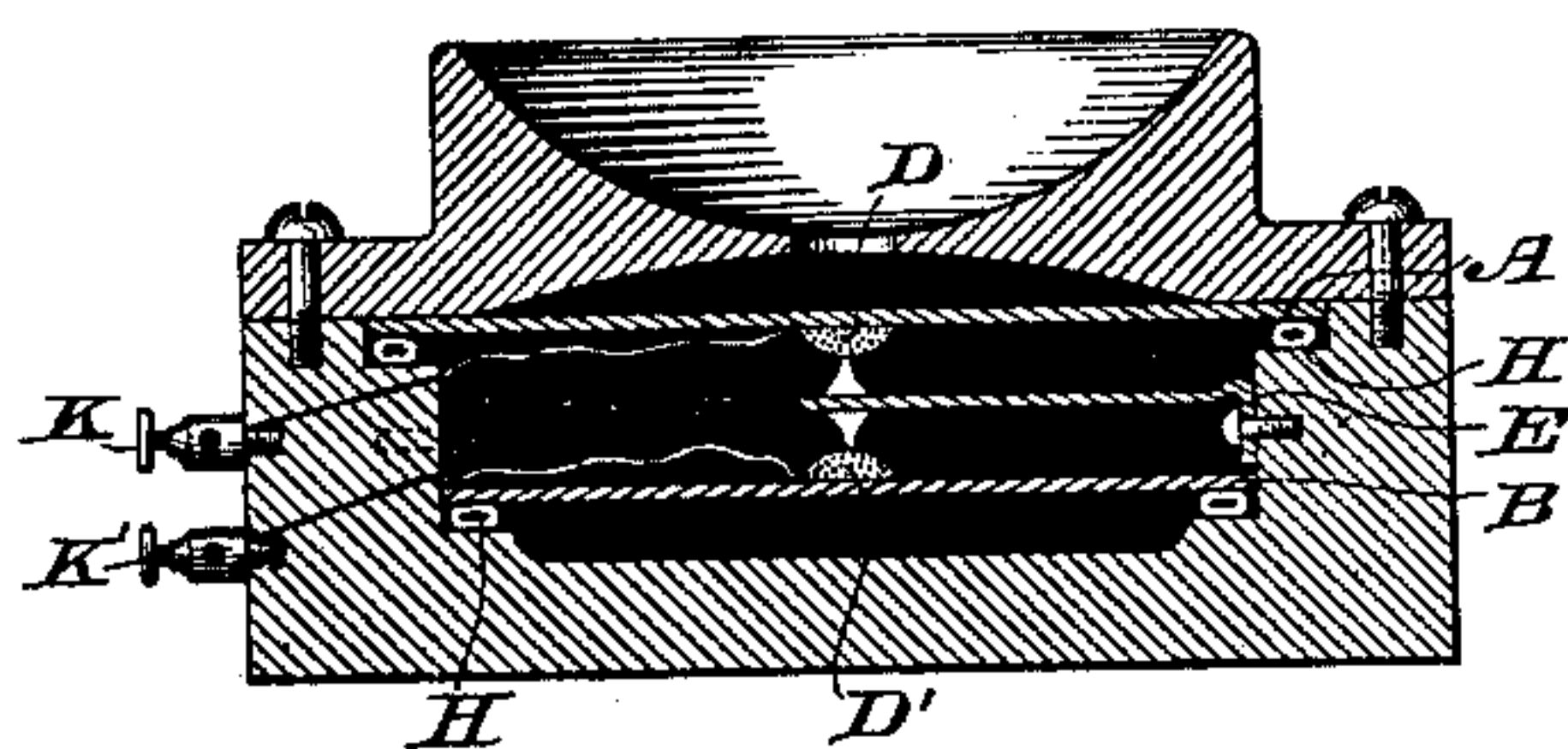
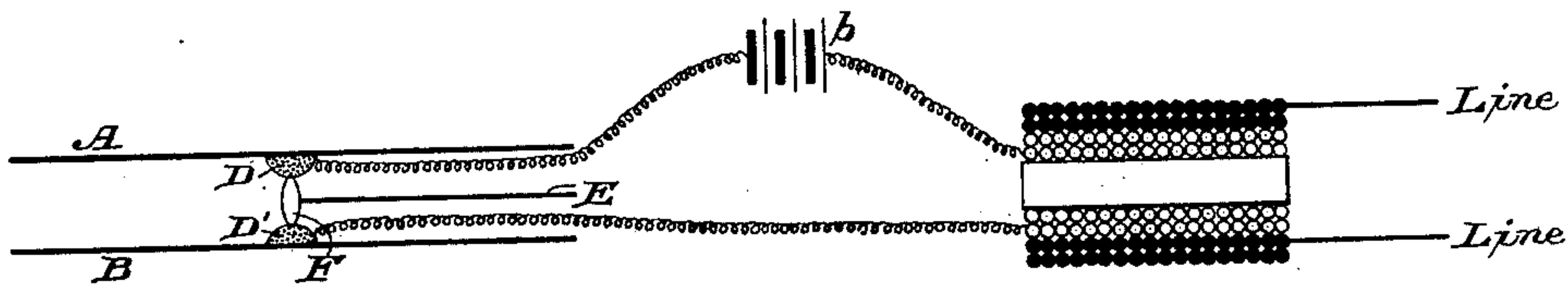


Fig. 2,



WITNESSES

Wm A. Shirkley.
Geo W. Breck.

INVENTOR

Allen W. Rose,

By *his Attorneys,*

Baldwin, Hopkins & Peyton

UNITED STATES PATENT OFFICE.

ALLEN W. ROSE, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES A. CHEEVER,
OF SAME PLACE.

ELECTRIC SPEAKING-TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 231,362, dated August 17, 1886.

Application filed March 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALLEN W. ROSE, a citizen of the Dominion of Canada, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Electric Speaking-Telephones, of which the following is a specification.

My invention more especially relates to that class of instruments known as "battery-telephones," by which the strength of a continuous current is increased or diminished by varying the pressure or area of conducting contact-points or bodies through which the current passes. The apparatus most generally used for producing such variations consists, broadly stated, of a vibrating transmitting-diaphragm and a carbon button through which the current passes.

Experience has demonstrated that it is better not to attach the conducting-body permanently to the case of the telephone, but to mount it upon a yielding support allowing a certain amount of play. The well-known Blake transmitter, in which the conducting-body is mounted on an adjustable spring, is a good illustration of this last-mentioned form of apparatus. Experience has, however, demonstrated even this form of apparatus to be objectionable, it being difficult to permanently adjust the tension of the spring properly, and a very slight variation of such tension is often sufficient to prevent the proper working of the instrument.

The objects of my invention, generally speaking, are to simplify the construction of the apparatus, to diminish its cost, and to increase its efficiency, which ends I attain by mounting two diaphragms, substantially parallel to each other, on a suitable casing or support, and interposing between them an independent conductor capable of corresponding to their vibrations.

The subject-matter claimed is hereinafter specified.

The diaphragms are electrically insulated from their support, and are preferably rendered adjustable with relation to each other.

The conducting-bodies employed by me preferably consist of carbon buttons or contact-points brought directly in contact with each

other; but platinum disks or surfaces may be interposed between them, as is well understood.

In the accompanying drawings, Figure 1 represents a vertical central section through one form of my improved telephone, and Fig. 2 a diagram of the apparatus employed.

The details of construction shown being old and well known, except as hereinafter specified, need not be particularly described here.

Two diaphragms, A B, are inserted in a cavity in the casing, respectively mounted on elastic or yielding rings H, resting upon suitable shoulders in the casing.

Conducting-bodies or contact-points are shown in the drawings as consisting of carbon buttons D D', secured upon the inner faces of their respective diaphragms, with an independent electrical conductor, consisting of a platinum button or contact-point, F, interposed between and in contact with them, and mounted upon a support, E, which may consist either of a diaphragm, yielding arm, or spring, properly mounted upon the casing, but electrically insulated from the line-wire or circuit-wires, one of which wires leads through a suitable binding-post, K, to the carbon button D, and the other through the binding-post K' to the other button, D'.

The pressure of the diaphragms or the carbon buttons upon the interposed conductor may readily be regulated by means of the elastic supporting-rings or screw-connections above described, or by other well-known means.

Under the arrangement on circuit shown in the drawings the current will pass from one pole of the battery through one carbon button and the interposed conductor to the other button, and thence, through the primary circuit of the induction-coil, to the other pole of the battery, b, by which organization the continuity of the circuit is maintained.

The various methods of arranging my improved apparatus on circuit (other than that herein represented) shown in an application for Letters Patent filed by me October 27, 1879, are the invention of Charles A. Cheever, of New York city, and consequently are herein disclaimed.

My application above mentioned shows

two diaphragms with carbon buttons in direct contact with each other, without the interposition of an intermediate conductor, which form of construction is consequently
5 not herein claimed.

I claim as of my own invention—

1. The combination, substantially as here-
inbefore set forth, of two diaphragms, con-
ducting-buttons or contact-points mounted
10 thereon, and an interposed independent con-
ductor vibrating correspondingly with the con-
tact-points to maintain the continuity of the
circuit.

2. The combination, substantially as herein-
15 before set forth, of a sectional casing, an ad-
justable screw-connection, two diaphragms,

each supported upon an elastic ring, and an
interposed independent conductor in electri-
cal connection with each diaphragm, whereby
the proper relation of the various parts is 20
maintained.

3. The combination, substantially as here-
inbefore set forth, of two diaphragms, an in-
terposed independent conductor, a battery,
connecting-wires, an induction-coil, and a line- 25
wire.

In testimony whereof I have hereunto sub-
scribed my name.

A. W. ROSE.

Witnesses:

EDWARD CLARK,
JOHN COLTON.