

(No Model.)

J. P. YOUNG.
TELEPHONE TRANSMITTER.

No. 345,658.

Patented July 13, 1886.

Fig. 1.

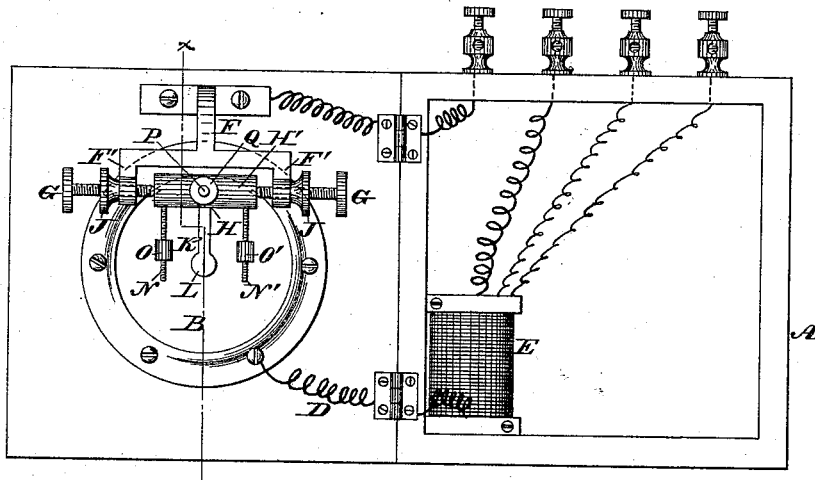
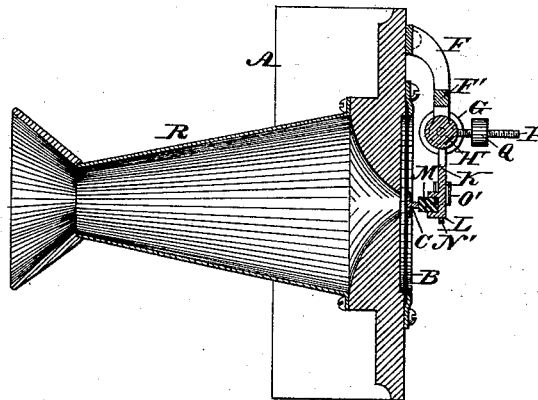


Fig. 2.



WITNESSES:

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JAMES P. YOUNG, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOHN B. DALLAS, OF SAME PLACE.

TELEPHONE-TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 345,658, dated July 13, 1886.

Application filed October 24, 1884. Serial No. 146,349. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. YOUNG, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Telephone-Transmitters, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 represents a view of the interior of a microphone embodying my invention. Fig. 2 represents a section of a portion of the microphone in line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists of a microphone having means whereby the contact of the electrodes may be maintained and nicely adjusted when necessary.

20 Referring to the drawings, A represents a box or casing of a microphone, and B the diaphragm thereof.

Suitably attached to the diaphragm B is the electrode C, having the wire D conducting to the induction-coil E.

30 To the casing A is attached a bracket, F, which has two arms, F' F', extending therefrom, between which is suspended, by means of screws G, a metallic oscillating arm, H, (shown T-shaped,) said screws being provided with jam-nuts J.

K represents the vertical part of the arm H, the same having a circular plate, L, to which is secured an electrode, M.

35 Rigidly secured to and projecting downward from the top part, H', of the arm H are threaded rods N N', having blocks or weights O O' adjustable thereon. These rods are at equal distances from part K and parallel thereto.

40 P represents a threaded rod, which extends horizontally from and at a right angle to the part H' of the arm H, and carries a block or weight, Q, adjustable thereon.

45 It will be seen that owing to the rods N, N', and P, with their weights O, O', and Q, the oscillating arm H may be so regulated, first, by the weights O O', which may be set nearer to or farther from the axis of the arm H, so as to render the latter as sensitive as possible, and next by the weight Q, whereby a delicate
50 contact of the electrodes may be maintained,

and thus a low-speaking telephone is produced, it being noticed that the rods or arms N N' are on opposite sides of the arm H, which carries the electrode M, each of the said arms N N' having its own adjustment, so that said electrode may be set with precision on the electrode C, the weights of said rods N N' permitting more or less strain to be imparted to either side of the electrode M.

60 Attached to the mouth-piece of the telephone or the wall of the opening thereof corresponding to said piece is a resonator, R, which consists of a double conical tube, or is formed of two truncated cones, *a a'*, united at their narrow diameter. By this provision the sound is gathered by the outer cone, *a*, and then passed into the wider cone, *a'*, where the sound-waves expand, after which said waves are gathered by the conical opening in the door of the transmitter, and thus directed against the diaphragm, increasing the volume of sound transmitted, said cone being formed of thin metal, or other suitable material which vibrates freely, and thus increases the resonant power of said cone.

I am aware that it is not new to suspend electrodes from the frame of a transmitter; neither is it new to connect with the said electrodes devices for adjusting or regulating the contact of the same, and such I do not claim.

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

85 A microphone composed of the casing A, having a bracket, F, with arms F' F' secured thereto, the oscillating arm H, pivotally secured to said arms by screws G G, and having a pending portion, K, provided with a circular plate, L, having a recess adapted to receive an electrode, and arms N N', with adjustable weights thereon, the said arms being equally distant from and parallel with the pending portion K, the electrode M, held in the plate L, and the diaphragm B, secured to said casing A, and having the electrode C, all said parts being combined and arranged substantially as and for the purpose set forth.

JAMES P. YOUNG.

Witnesses:

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