(No Model.)

O. MORAN.

TELEPHONE TRANSMITTER.

No. 587,593. Patented Aug. 3, 1897.

Fig. I.

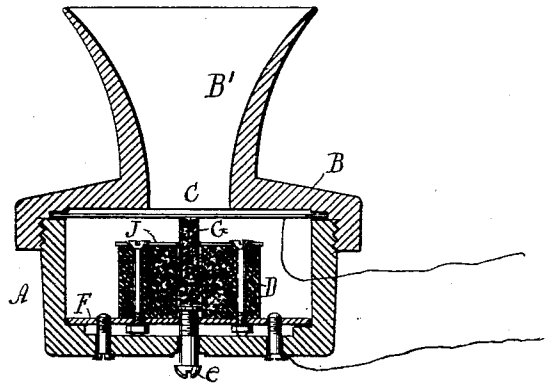


Fig. III.

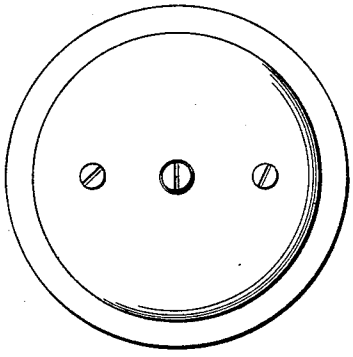
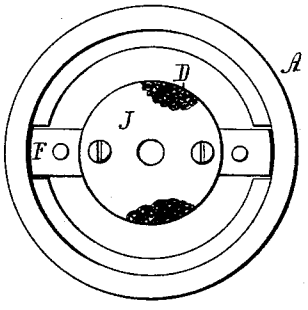


Fig. II.



WITNESSES

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TELEPHONE-TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 587,593, dated August 3, 1897.

Application filed December 22, 1896. Serial No. 616,587. (No model.)

To all whom it may concern:

Be it known that I, OWEN MORAN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Telephone-Transmitters, of which the following is a specification.

My invention relates especially to that class of telephone-transmitters in which are incorporated granules of carbon or other conducting material in a loose state; and it consists of certain novel features of construction for producing various advantageous results, as hereinafter fully set forth.

In the accompanying drawings, Figure 1 represents a vertical central section of a transmitter embodying my invention. Fig. 2 represents a plan view thereof with the cap removed and portions of the mica ring broken away to expose the carbon block beneath it. Fig. 3 represents an inverted plan view of the instrument.

Similar letters of reference indicate corresponding parts.

The letter A indicates the box or casing, and B the cap fitted thereon with the diaphragm C between it and the box, said cap having the mouthpiece B formed integral therewith.

The letter D indicates a carbon block, which is situated centrally within the casing A and which has a central hole extending therethrough for the reception of granules of carbon or other like electric material in a loose state. These granules of conducting material are supported by means of a set-screw E, which extends through the bottom of the casing upwardly into said hole of the carbon block and through a metallic plate F, secured to the interior of the bottom of the casing. At a point central to the diaphragm C and extending downwardly therefrom is a carbon pencil G, which is fitted into a central hole or opening of the carbon block D in such a manner as to be capable of free up-and-down movement therein. This carbon pencil G in practice contacts with the granules of carbon contained within said central hole of the carbon block D and jointly with the diaphragm G forms one of the electrodes of the instrument, of which the other electrode is formed by means of the metallic plate F coacting with one of two more screws, serving to fasten said plate to the casing. The set-screws, besides acting as a support for the loose granules, constitute an adjusting medium therefor in relation to the carbon pencil, and in order to prevent the escape of the granules in an upward direction from their containing hole or socket the carbon block D is provided on its upper part with a ring J, of mica or other insulating material, and fastened to the carbon block, which is of a diameter to fit snugly around the carbon pencil G without impeding its round movement in undulations of the diaphragm to which it is subjected in the operation of the instrument.

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

1. In a telephone-transmitter the combination with the casing, the cap fitted thereon having a suitable mouthpiece and with the diaphragm between said casing and cap, of the carbon block within the casing having a central hole extending therethrough for the reception of granules of carbon or other conducting material in a loose state, a set-screw extending through the bottom of the casing upwardly into said hole of the carbon block to form a support and adjusting medium for the loose granules and a carbon pencil extending downwardly from the diaphragm into said hole of the carbon block to contact with granules, substantially as shown and described.

2. In a telephone-transmitter the combination with the casing, the cap fitted thereon, having a suitable mouthpiece and the diaphragm between said casing and cap, of the carbon block within the casing, a central hole extending therethrough for the reception of granules of carbon or other conducting material in a loose state, a metallic plate secured to the interior of the bottom of the casing to act as a support for the carbon block and form one of the electrodes of the instrument, a set-screw extending through the bottom of the casing and through said metallic plate upwardly into said hole of the carbon block to form a support and adjusting medium for the loose granules therein, and a carbon pencil extending downwardly from the diaphragm

into said hole of the carbon block to contact with said granules, substantially as shown and described.

3. In a telephone-transmitter the combination of the following instrumentalities, a casing, a cap fitted thereon with a suitable mouthpiece, a diaphragm between said casing and cap, a carbon block within the casing having a central hole extending therethrough for the reception of granules of carbon or other conducting material in a loose state, a metallic plate secured to the interior of the bottom of the casing to act as a support for the carbon block and form one of the electrodes of the transmitter, a set-screw extending through the bottom of the casing and through said metallic plate upwardly into said hole of the carbon block to form a support and adjusting medium for the loose granules, a carbon pencil extending downwardly from the diaphragm into said hole of the carbon block to contact with said granules and a ring of mica or other insulating material arranged on the upper part of the carbon block to fit snugly around said carbon pencil for preventing the escape of the granules at that point, substantially as shown and described.

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Witnesses:
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