

J. J. COMER.
TELEPHONIC TRANSMITTER.
APPLICATION FILED MAR. 4, 1907.

1,105,066.

Patented July 28, 1914.

Fig. 1.

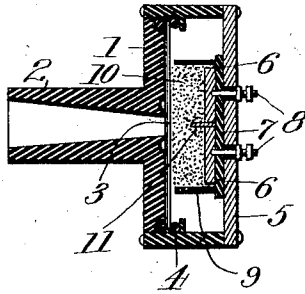


Fig. 2.

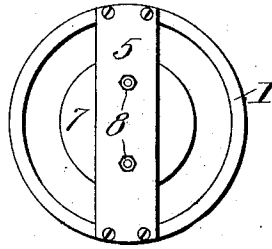
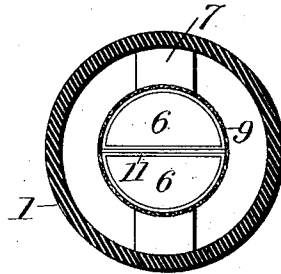


Fig. 3.



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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN J. COMER, OF SANTA MONICA, CALIFORNIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE WEBB TALKING PICTURE COMPANY, A CORPORATION OF DELAWARE.

TELEPHONIC TRANSMITTER.

1,105,066.

Specification of Letters Patent.

Patented July 28, 1914.

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To all whom it may concern:

Be it known that I, JOHN J. COMER, a citizen of the United States, residing at Santa Monica, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Telephonic Transmitters; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to transmitters designed more particularly for instruments for recording sound relations but adapted for other kinds of sound or wave transmitting instruments.

It has for its object to produce a transmitter free from metallic sounds and having an unlimited range of vibration and which will cause more distinct and audible transmission of the sound vibrations.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the features hereinafter particularly described and then sought to be clearly defined by the claims, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical section through the transmitter; Fig. 2 is a front view of the granular carbon holding cup, the electrodes, the separator, and the diaphragm; and Fig. 3 is a rear view showing the bridge supporting the electrodes and granular carbon holding cup.

In the drawing, the numeral 1 designates the casing having the tube 2 which parts may be of any approved pattern, the interior of the tube being tapering toward the diaphragm, which latter is designated by the numeral 3 and may be of glass, aluminum, or other suitable material. The diaphragm has the rubber rings 4 bearing thereon near its periphery, on its opposite sides.

To the bridge 5 is secured by screws, or otherwise, the carbon electrodes 6 which are insulated from the bridge by a suitable insulation 7. The electrodes have the terminals 8 secured thereto, and are encircled by a fibrous cotton wall 9 which forms a cup for holding the granular carbon 10.

This fibrous wall relieves the diaphragm of the pressure that would result from making the wall of a hard substance, and hence a free vibration of the diaphragm is obtained. The electrodes 6 are separated by a strip of mica 11 which projects into the body of the granular carbon contained in the cup. This separator causes the current to follow a course or circuit extending farther into the body of the carbon granules as it must pass over or around the separator, and thus affords the diaphragm a better opportunity to disturb the path of the current and produce a greater resistance to it. The construction described relieves the diaphragm of weight, deflects the path of the current, and enables the vibration of the diaphragm to better disturb the path of the current and cause greater resistance to it, all of which results in a greater range of vibration, greater sensitiveness, absence of metallic tones, and clearer and more distinct production of the waves of vibration.

I have described a construction which will give the results assigned to each of the features but changes can be made in the details without departing from the essential features.

Having described my invention, and set forth its merits, what I claim is:—

1. A transmitter comprising a diaphragm, a bridge carrying a cup containing granular carbon, two electrodes both of which are carried by the bridge and insulated therefrom and lying on the same side of the granular carbon, and an insulating strip interposed between the electrodes and extending into the granular carbon whereby said strip is caused to serve the twofold purpose of separating the two electrodes and deflecting the path of the current from one electrode to the other, said cup, electrodes and insulating strip being supported from the bridge independently of the diaphragm to relieve the latter from the weight of said parts, and said diaphragm being in contact with the granular carbon and free from positive connection with said parts including the cup, substantially as described.

2. A transmitter comprising a diaphragm, a granular carbon holding cup, the wall whereof is formed of soft loose fibrous material, electrodes on the same side of the granular carbon, and a separator between the electrodes and projecting into the body

of the carbon granules transversely across the cup; said separator serving to insulate the electrodes from each other and deflect the path of the current from one electrode to the other, said cup, electrodes and separator being supported independently of the diaphragm to relieve the latter from the weight of said parts, substantially as described.

3. A transmitter comprising a diaphragm, granular carbon holding cup, two electrodes both of which are on the same side of the carbon in the cup, and an insulating strip interposed between the two electrodes and projecting into the body of the carbon gran-

ules transversely across the cup, said cup, electrodes and separator being supported independently of the diaphragm to relieve the latter from the weight of said parts, and said diaphragm being in contact with the granular carbon and free from positive connection with said parts including the cup, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. COMER.

Witnesses:

FRED JABEZ COMER,
JOSEPH A. COMER.