(No Model.)

I. LUCAS.

TELEPHONE TRANSMITTER.

No. 549,803. Patented Nov. 12, 1895.

Fig. 1.

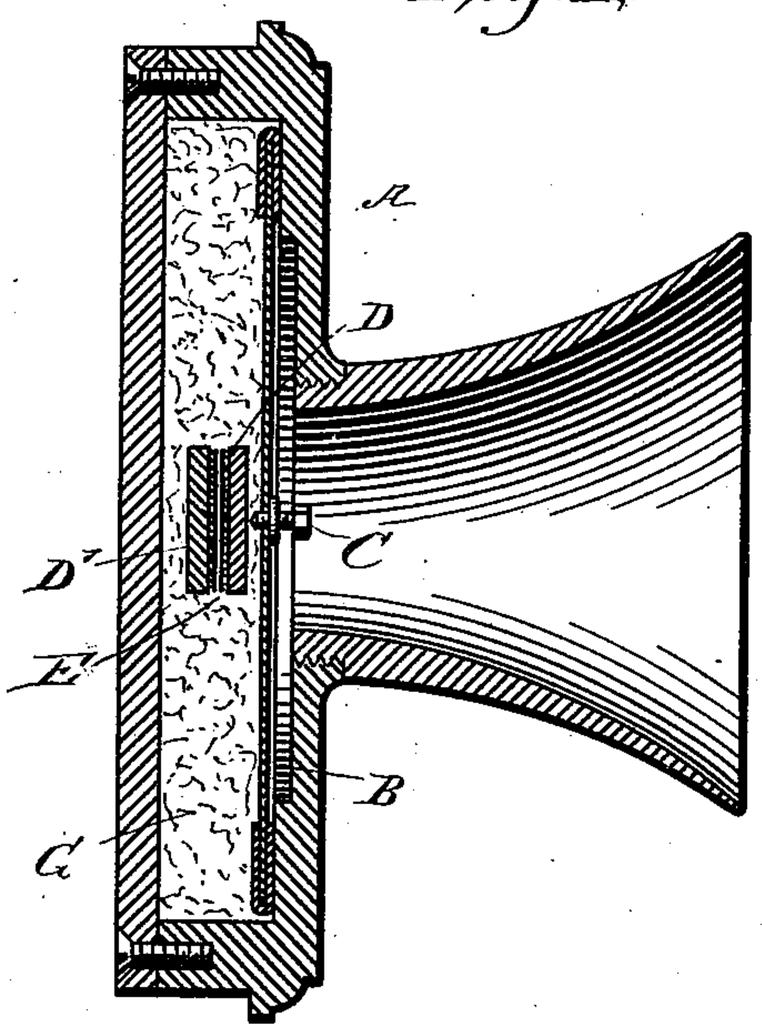


Fig. 2.

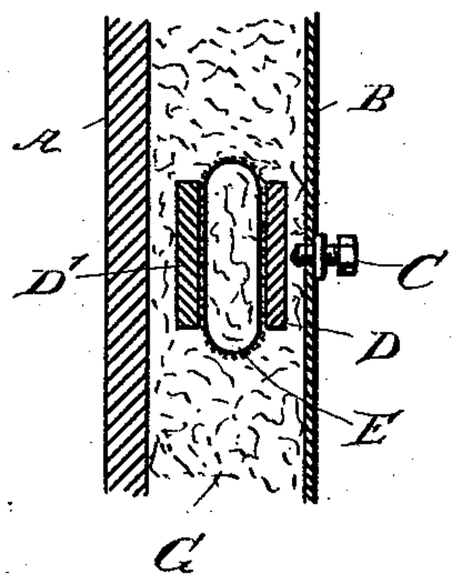
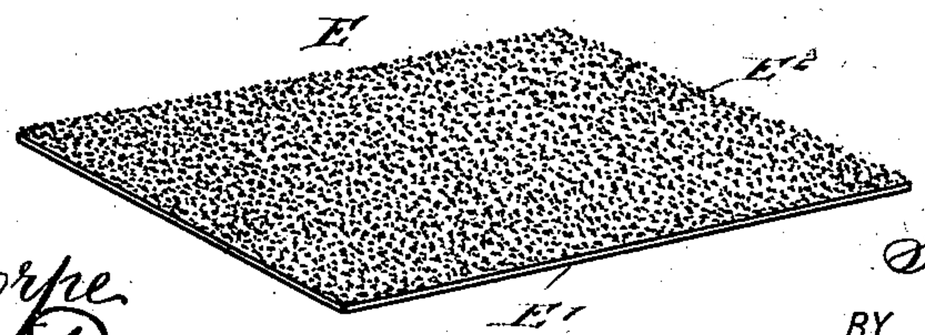


Fig. 3.



WITNESSES:

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IGNATIUS LUCAS, OF PASSAIC, NEW JERSEY.

TELEPHONE-TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 549,803, dated November 12, 1895.

Application filed May 31, 1895. Serial No. 551,190. (No model.)

To all whom it may concern:

Be it known that I, IGNATIUS LUCAS, of Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Telephone-Transmitters, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in telephone-transmitters whereby the displacement of the granulated carbon between the buttons is entirely prevented and a uniform and perfect transmission of sound is obtained, even if the transmitter is located in a building subjected to noise and jar, owing to running machinery or other causes.

The invention consists principally of a base in the form of a sheet of conductive material and a surface coating of granulated carbon applied thereto.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement as applied. Fig. 2 is a sectional side elevation of a modified form of the improvement, and Fig. 3 is a perspective view of a sheet of the improved material.

The transmitter is provided with the usual casing A and a diaphragm B, carrying a screw C in engagement with a button D, opposite to which is arranged a rear button D′, as plainly indicated in the drawings. Between the two buttons D and D′ is placed a doubled-up sheet E, consisting of a base E′ of conductive material, such as wire-netting, foil, &c., the sheet being coated on its surface with granulated carbon E^2, and this surface is in contact with the corresponding inner faces of the buttons D and D′.

The material placed between the two buttons D and D′ is made in large sheets and cut to the desired form, either in the shape of single disks placed with their bases in contact and with the coating on the outside, or in the shape of disks each doubled up, as desired, and indicated in Fig. 1, or in the shape of an oblong ring, as indicated in Fig. 2, it being, however, understood that the granulated coating is in contact with the buttons D and D′, and the space inside of the base is filled in with a suitable soft material G, such as felt, sliver, or the like, and in which the buttons are preferably embedded, as more fully described in the application for Letters Patent of the United States, Serial No. 549,429, filed by me on May 15, 1895. The granulated carbon is firmly attached to the sheet of conductive material by a suitable adhesive substance—such, for instance, as collodion—applied to the sheet to receive the granulated carbon in an even layer.

Now it will be seen that by the arrangement described the granulated carbon always remains uniformly in contact with the buttons D and D′, notwithstanding that the transmitter may be subjected to jar when located in vibrating buildings—such, for instance, as factories, &c.

In transmitters as now constructed, the loose carbon is liable to be displaced between the buttons, owing to the vibrations of the transmitter by external causes; but by attaching the granulated carbon to a sheet of conductive material a uniform contact is always made between the granulated carbon and the buttons.

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

1. In a telephone or like instrument, the combination with the buttons thereof, of a material composed of a base having granulated carbon thereon, the material being between the opposing faces of the buttons with the carbon in contact with said buttons, substantially as described.

2. In a telephone or like instrument, the combination with the buttons thereof, of a material composed of a metallic base having granulated carbon thereon, the material being between the opposing faces of the buttons with the carbon in contact with said buttons, substantially as described.

3. As a new article of manufacture, material to be used between the buttons of telephones and like instruments, comprising a base of reticulated metal, having a coating of granulated carbon on one surface thereof only, as set forth.

IGNATIUS LUCAS.

Witnesses:
THEO. G. HOSTER,
C. SEDGWICK.