

(No Model.)

D. DRAWBAUGH.
CARBON HOLDER FOR TELEPHONES.

No. 540,960.

Patented June 11, 1895.

Fig. 1.

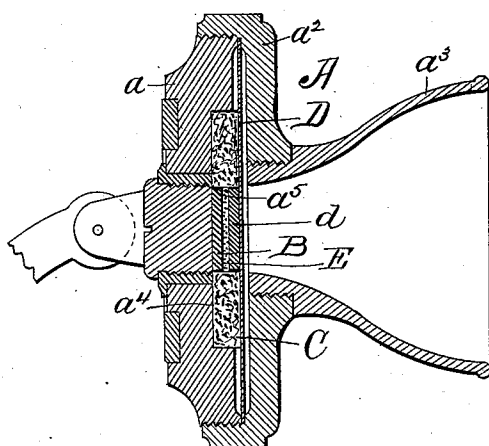
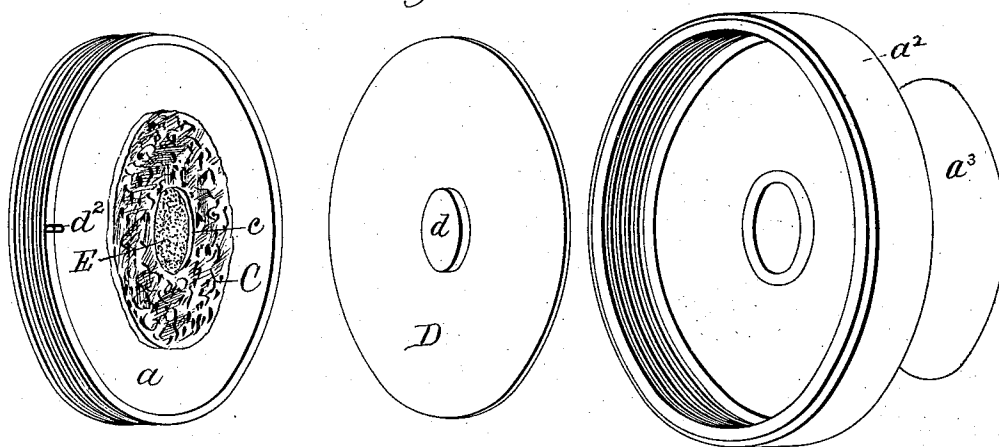


Fig. 2.



witnesses:

Harry S. Johns.
Rebecca C. Smith.

Inventor:
Daniel Drawbaugh,
by A. S. Dyrenforth,
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UNITED STATES PATENT OFFICE.

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CARBON-HOLDER FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 540,960, dated June 11, 1895.

Application filed February 21, 1895. Serial No. 539,274. (No model.)

To all whom it may concern:

Be it known that I, DANIEL DRAWBAUGH, a citizen of the United States, residing at Eberly's Mill, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Carbon-Holders for Telephones; and I do hereby 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.

This invention relates to telephone transmitters.

The object is to present a holder for loose carbon employed between the fixed carbon points of a microphone, which holder shall be of simple and ready production and be efficient in use and operation.

With this object in view, the invention consists in a dampener adapted to act as a carbon holder—that is, a combined dampener and carbon holder, of sponge or other suitable spongiform—that is, soft, elastic and cellular non-conductive substance, of appropriate size and shape.

In a combined dampener and carbon holder characterized by my invention, I employ as a suitable container for this carbon holder, preferably the body portion of the telephone. Within this portion is located a chamber in which is placed the carbon holder, comprising an annulus of a cellular character, preferably of sponge or spongiform substance having a central orifice into which project the electrodes or carbon points of the microphone and between which is placed granular carbon, the latter being held in position by the walls of the central orifice. The annulus is, by preference, slightly thicker than the depth of the chamber in order to permit of a close union with the diaphragm when the parts constituting the body of the transmitter are assembled, but such union is not of a nature to prevent or interfere with the proper vibrations of the diaphragm. As a matter of further improvement, I may, if desired, treat the annulus with any suitable moisture-resisting substance to prevent swelling thereof, which might interfere with the proper working of the microphone.

Further and specific details of construction

will hereinafter be fully described and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, and in which like letters of reference indicate corresponding parts, I have illustrated one form of embodiment of my invention, capable of carrying the same into effect, although other embodiments may be employed, without departing from the spirit thereof.

In the drawings, Figure 1 is a view in transverse section showing the relative positions occupied by the parts constituting a telephone-transmitter containing a carbon-holder constructed in accordance with my invention. Fig. 2 is a view in perspective showing the parts of the transmitter separated and displaying the annulus and its contained body of granular carbon.

Referring to the drawings, A designates the transmitter comprising a body-portion, a , a cap or cover a^2 , and a mouth-piece a^3 , and, as these parts may be of any well-known or preferred construction, a detailed description of them is deemed unnecessary.

The body-portion a is provided with a chamber or depression a^4 having a central opening a^5 , through which projects one of the electrodes B, which, in this instance, connects with an induction-coil, not shown. Within the chamber a^4 is placed the carbon-holder C, which is constructed of sponge, or any other suitable spongiform,—that is, soft, elastic, and cellular substance such as sponge-rubber that combines the properties of resiliency and non-conductivity. The central opening c of the carbon-holder is also engaged by the electrode d of the diaphragm D, which latter is connected through the medium of a contact-point d^2 with a source of electricity, and, between the two electrodes B and d , is interposed the body of granular carbon E, which serves to prevent any make and break of the current with its attendant disagreeable results, as is well understood. The annulus is of a thickness slightly greater than the depth of the chamber a^4 in order to permit of a close union between it and the diaphragm when the parts constituting the body of the transmitter are assembled, and, also, to hold the body of granular carbon in place against loss.

In some instances, the carbon holder may be treated with a suitable moisture-resisting substance, to prevent any swelling or bulging thereof, which might result in the derangement of the adjustment of the parts of the telephone and thereby interfere with its proper working.

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

1. A carbon-holder for telephone-transmitters, comprising an annulus wholly of sponge, substantially as described.

2. The combination with a telephone-transmitter and its electrodes, of an annulus, constructed wholly of sponge, encircling the electrodes, and a body of granular carbon interposed between the electrodes and held in place by the annulus, substantially as described.

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

DANIEL DRAWBAUGH.

Witnesses:

G. MILTON BAIR,
R. M. ELLIOTT.