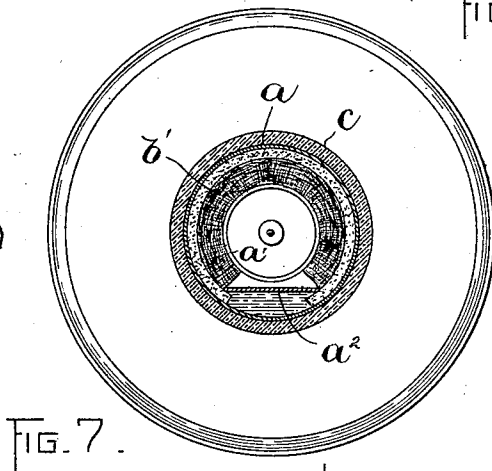
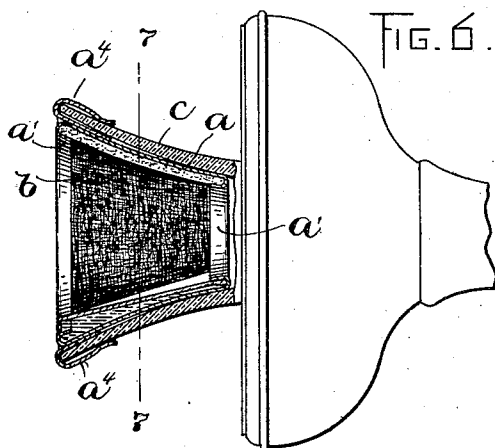
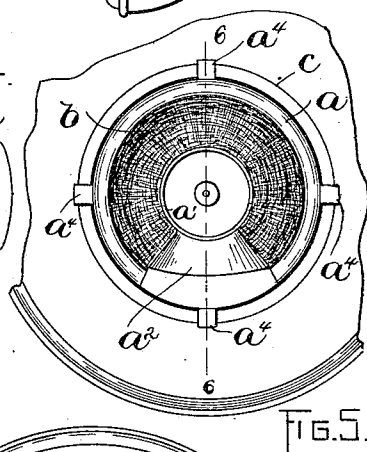
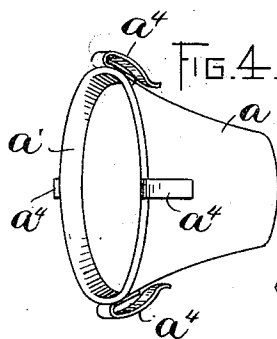
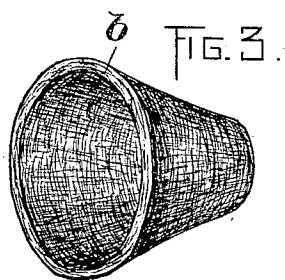
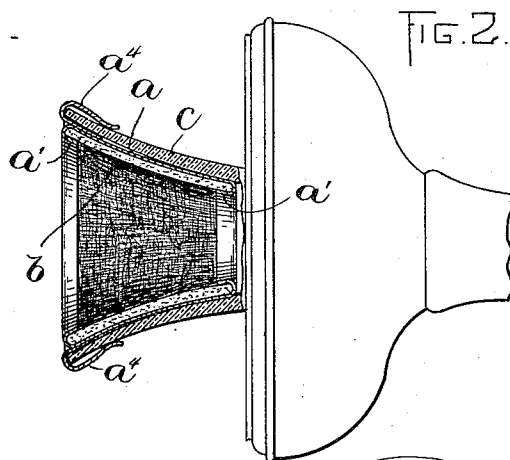
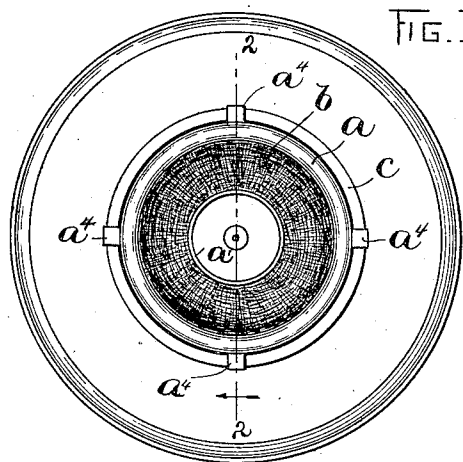


(No Model.)

C. L. COHN & M. MARTIN.
MOUTHPIECE FOR TELEPHONES.

No. 579,790.

Patented Mar. 30, 1897.



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UNITED STATES PATENT OFFICE.

CASPER L. COHN, OF BOSTON, AND MORRIS MARTIN, OF MALDEN, MASSACHUSETTS; SAID MARTIN ASSIGNOR TO SAID COHN.

MOUTHPIECE FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 579,790, dated March 30, 1897.

Application filed December 11, 1896. Serial No. 615,338. (No model.)

To all whom it may concern:

Be it known that we, CASPER L. COHN, of Boston, in the county of Suffolk, and MORRIS MARTIN, of Malden, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Mouthpieces for Telephones, &c., of which the following is a specification.

This invention relates to mouthpieces for telephones, phonographs, speaking-tubes, &c., and has for its object to provide an article of this class which shall be adapted to readily receive and retain an antiseptic liquid and present the same at the interior of the mouthpiece, so that its evaporation will prevent the accumulation of disease-germs in the mouthpiece.

The invention consists in the improvements which we will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a front elevation of a long-distance-telephone transmitter to which our improvement is applied. Fig. 2 represents a section on line 2 2 of Fig. 1. Fig. 3 represents a perspective view of the absorbent lining shown in Figs. 1 and 2. Fig. 4 represents a perspective view of the shell which holds said lining. Fig. 5 represents a view similar to Fig. 1, showing the shell provided at its lower portion with a liquid-reservoir. Fig. 6 represents a section on line 6 6 of Fig. 5. Fig. 7 represents a section on line 7 7 of Fig. 6.

The same letters of reference indicate the same parts in all the figures.

In carrying out our invention we provide a shell *a*, which forms a tube or conduit adapted for the transmission of sound-waves and is preferably of a tapering or frusto-conical form. The shell may be made of sheet metal and is provided with suitable means for retaining in contact with its inner surface an absorbent lining *b*, adapted to receive an antiseptic liquid. The lining, as shown in Figs. 1, 2, and 3, is a seamless conical tube of felt adapted to fit the interior of the shell *a*, the latter being provided at its ends with inwardly-projecting flanges *a'* *a'* to receive the ends of the lining *b* and hold the same in place in the shell. It will be seen that the

lining exposes a large area of absorbing-surface, which may be saturated with any suitable antiseptic liquid and from which the liquid will be evaporated in sufficient quantities to prevent the presence of disease-germs in the tube or conduit.

In Figs. 5, 6, and 7 we show the lower portion of the shell *a* provided with a liquid-reservoir *a*², which is formed to receive an accumulation of the liquid and has openings at its ends to receive the absorbent lining, which in this case is a strip or piece *b'* of wicking or other suitable material, instead of being a seamless tube, as shown in Figs. 1, 2, and 3.

We prefer to make the shell *a'* as an attachment for an ordinary permanent mouthpiece *c* and to provide the shell with means for detachably securing it to said mouthpiece *c*, so that the shell with its absorbent lining may be readily applied to and removed from an ordinary mouthpiece. The means here shown for detachably securing the shell to the permanent mouthpiece *c* comprise spring hooks or fingers *a'*, secured to the larger end of the shell *a* and adapted to grasp the corresponding end of the permanent mouthpiece *c*. It is obvious, however, that any other suitable means may be employed for detachably securing the shell to the mouthpiece *c*, our invention not being limited in this particular.

We believe it to be broadly new to detachably apply a lining-shell to a permanent mouthpiece, the said lining-shell having means for holding an antiseptic liquid.

We do not limit ourselves to the employment of a shell made in a separate piece from the absorbent lining, as the lining itself may be provided with means for retaining it in place in the permanent mouthpiece of a telephonic or other apparatus. For example, the seamless lining shown in Fig. 3 may be provided with an external coating of shellac, varnish, or other material to suitably stiffen it and adapt it to remain in place in a mouthpiece, or the lining thus treated may have hooks or fingers adapted to grasp the permanent mouthpiece.

The distinguishing characteristics of our invention are, first, a lining of absorbent material adapted to present a large area of evap-

orating-surface within a mouthpiece, and, secondly, a liquid-proof holder, shell, or backing arranged to prevent evaporation or escape of the absorbed liquid at the outer surface of the absorbent lining, or in such direction as would give the liquid access to the adjacent parts, such as the diaphragm. The antiseptic liquid employed contains alcohol, which acts as a solvent of the japan or varnish coating on the diaphragm of a telephone-transmitter, so that if the liquid had access to the said coating the metal of the diaphragm would be exposed and would therefore be liable to be rusted by the moisture of the breath condensed upon the diaphragm.

The absorbent lining securely holds a sufficient quantity of the antiseptic liquid in the mouthpiece to insure the desired disinfection, while the liquid-proof shell or backing protects the adjacent parts of the instrument from contact with the liquid, and when made removable from the fixed mouthpiece furnishes a substantial and durable holder for the absorbent lining.

It is desirable that the greater part of the inner surface of the absorbent lining be exposed within the mouthpiece to insure effective disinfection. We have provided for this by constructing the liquid-proof shell so that it bears on the outer surface and ends of the absorbent lining, leaving its inner surface wholly or mainly exposed.

The detachability of the device enables it

to be removed and conveniently charged with antiseptic liquid without liability of smearing the diaphragm or other parts with such liquid.

We claim—

1. A frusto-conical or cup-shaped mouthpiece-lining comprising a liquid-proof external section, and an absorbent inner section secured to the interior of the outer section, and fastening devices for attachment to a correspondingly-shaped mouthpiece.

2. A frusto-conical or cup-shaped mouthpiece-lining comprising a liquid-proof external section provided with end flanges, and an absorbent inner section covering the interior of the outer section and engaged at its ends with said flanges, the inner surface of said absorbent section being exposed between said flanges and forming an evaporating-wall for the sound-passage of the mouthpiece, and means for detachably connecting the said lining with a permanent frusto-conical or cup-shaped mouthpiece.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, this 7th day of December, A. D. 1896.

CASPER L. COHN.
MORRIS MARTIN.

Witnesses:

C. F. BROWN,
R. M. PIERSON.