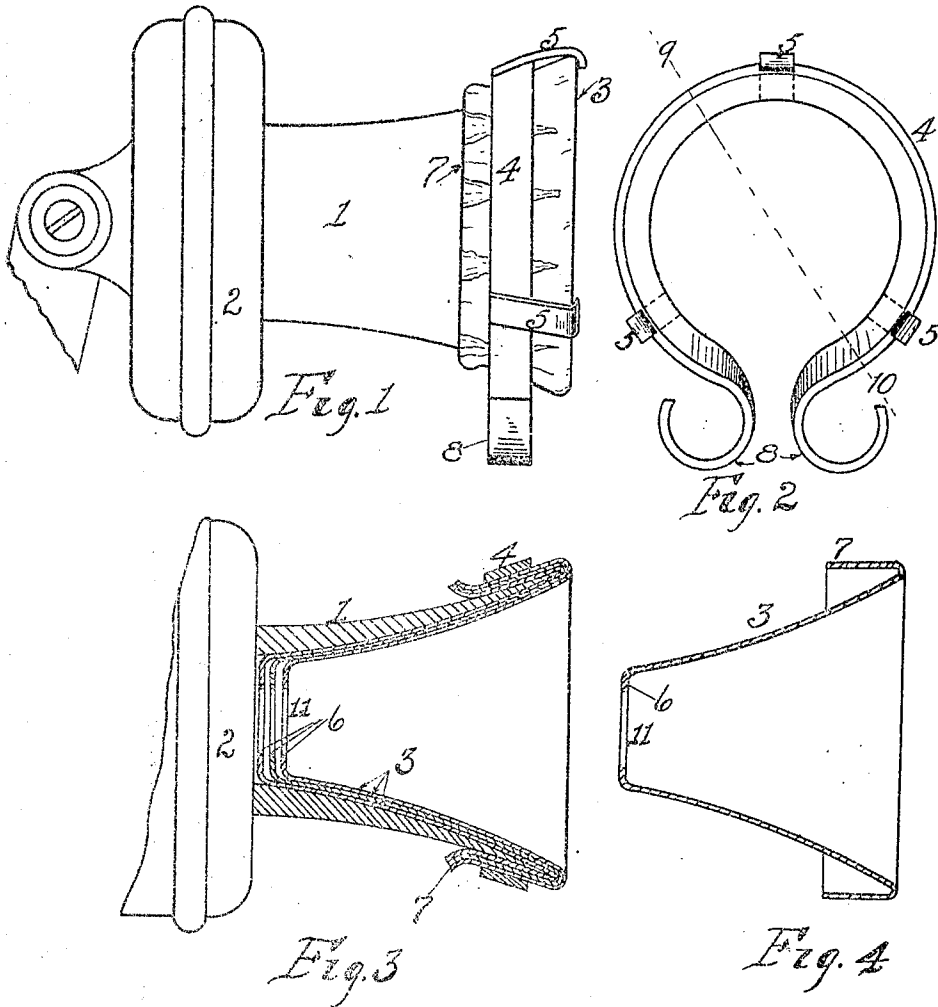


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GERMIOIDE LINING FOR MOUTHPIECES FOR VOICE TRANSMITTING INSTRUMENTS.  
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# UNITED STATES PATENT OFFICE.

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## GERMICIDE LINING FOR MOUTHPIECES FOR VOICE-TRANSMITTING INSTRUMENTS.

No. 913,792.

Specification of Letters Patent. Patented March 2, 1909.

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To all whom it may concern:

Be it known that I, AUGUSTUS A. WILLIAMS, a citizen of the United States, residing at Charlotte, in the county of Mecklenburg and State of North Carolina, have invented certain new and useful Improvements in Germicide Linings for Mouthpieces for Voice-Transmitting Instruments, of which the following is a specification.

10 My invention relates to an improvement in the method of making voice transmitting mouthpieces or similar devices germicide or antiseptic where disease germs are likely to breed and to be propagated from one person to another while in the act of talking, and my objects are—first: to provide a plurality of removable antiseptic or germicide linings for voice transmitting mouthpieces in order that the mouthpiece may be made antiseptic or germ proof without reducing the maximum amplitude of the sound wave to an objectionable extent; second: to provide a means to prevent saliva from entering the voice transmitting element; third: to provide a removable means for securing said linings to said voice transmitting mouthpieces to which they are to be attached; fourth: to provide a means whereby one or more of said linings may be readily removed, and, fifth: to provide a simple and cheap construction of said lining so that the same may be made cheaply in order that they may be destroyed after being used a desired length of time.

35 With these objects in view, my invention consists in certain novel features of construction and arrangement of parts as will hereinafter be more fully described and pointed out in the claims, reference being had to the accompanying drawing, forming part thereof, and in which—

40 Figure 1 is an elevation of a voice transmitting mouthpiece showing the method of securing the linings therein by an elastic band. Fig. 2 is a view of the elastic band; Fig. 3 is a section 9—10 of Fig. 2, and shows a plurality of linings arranged in a mouthpiece, and Fig. 4 is a view showing an individual lining.

50 Similar figures refer to similar parts throughout the several views.

Referring to the figures, 1 designates a voice transmitting mouthpiece and which

it is desired to be made antiseptic or germ proof, and is shown as the ordinary telephone transmitting instrument 2 and to which my present invention is particularly applicable; 3 designates a lining made of some cheap material, such as paper, and which is adapted to be treated with some antiseptic or germicide solution. It has the shape of a frustum of a cone, the sides being slightly concaved so as to take the form of the inside of the mouthpiece 1; 6 designates the upper base of the frustum and is provided with an aperture 11 therein. The aperture 11 is of such diameter as to readily allow the sound wave to pass to the transmitting element without reducing the amplitude of the sound wave to an objectionable extent, and is smaller in diameter than the upper base of the frustum. The lower base of the frustum shaped lining 3 is vertically turned forming the part 7 and is adapted to fit over the periphery of the mouthpiece 1.

4 designates an uncompleted loop of an elastic band, preferably of metal, the terminal portions 8 extending substantially in opposite direction and each also forming an uncompleted loop, which is adapted for finger engagement.

5 designates prongs which are rigidly attached to the band 4 and extend forward and inward over the end of the mouthpiece, which serves to prevent the band 4 from slipping back off the part 7 of the lining 3.

The thickness of the linings, as shown in Figs. 3 and 4, is somewhat exaggerated, and in practice would be made of thin material. The conical shape of these linings allows a plurality of them to be telescoped together, as shown in Fig. 3, and it is obvious can be readily inserted in a voice transmitting mouthpiece, as shown. The aperture 11, as heretofore described, allows the sound wave to readily pass to the transmitting element. These linings can readily be made antiseptic or germ proof by the ordinary methods, as are understood by those skilled in that art, and thus accomplishing the aforesaid first mentioned object of my said invention.

As shown in Fig. 4, the aperture 11, in the upper base of the frustum, is smaller in diameter than the upper base, the remaining part therefore acts as an obstruction to any saliva that may have a tendency to

flow in the transmitting element due to a vertical inclination of the transmitting mouthpiece. It is obvious that instead of a single aperture as shown a plurality of smaller ones would accomplish the same purpose, thus accomplishing the aforesaid second object of my said invention.

The elastic band 4 being of an uncompleted loop can readily be opened so as to fit over the part 7 of the lining 3, and being of elastic material, the free ends 8 will tend to converge and thereby firmly secure the linings to the voice transmitting mouthpiece 1 and thus accomplishing the heretofore mentioned third object of my said invention. After the innermost lining has been exposed for a desired length of time, or it is desired to remove same, the pressure of the elastic band can be released by slightly diverging the free ends 8 of the band 4 and the innermost lining can be withdrawn and destroyed exposing a new lining in place thereof.

It is obvious that these linings as heretofore described are of simple construction, and being made of paper, or the like, can be fabricated cheaply, and after they have served their period of usefulness, can be destroyed. New linings can therefore be substituted at a very small expense and thus accomplishing the fourth and fifth heretofore mentioned objects of my said invention.

I am aware that other antiseptic or germ proof devices have been devised, but I know of none that possess the advantage of being cheaply constructed, so that the same may be destroyed when their period of usefulness is over and which also will allow the sound wave to pass to the transmitting element without reducing the amplitude of same to an objectionable extent.

Having thus described the nature and object of my said invention, which I claim as new, and desire to secure by Letters Patent, is:—

1. A plurality of removable, thin paper linings for voice transmitting mouthpieces combined in telescopic relation and each provided with means to prevent saliva from entering the transmitting element, substantially as described.

2. A plurality of removable, germicide, frusto-conical shaped, thin paper linings for voice transmitting mouthpieces combined in telescopic relation and each provided with an aperture in the upper base thereof smaller in diameter than said base, all substantially as and for the purpose shown and described.

3. A plurality of removable, germicide, frusto-conical shaped, thin paper linings for voice transmitting mouth-pieces combined in telescopic relation each provided with an aperture in the upper base thereof smaller in diameter than said base and the lower base turned rearwardly over the pe-

riphery of said mouth-piece and means adapted to secure same to said mouth piece, all substantially as and for the purpose shown and described.

4. A plurality of removable, germicide, thin paper linings for voice transmitting mouthpieces combined in telescopic relation and a means on each to prevent saliva from entering the transmitting element, all substantially as and for the purpose shown and described.

5. A plurality of removable, germicide, thin paper linings for voice transmitting mouthpieces, frusto-conical shaped and in telescopic relation and the upper base thereof provided with an aperture therein less in diameter than said base, all substantially as and for the purpose shown and described.

6. A plurality of removable, germicide, thin paper linings for voice transmitting mouthpieces, each lining frusto-conical shaped, an aperture in the upper base thereof smaller in diameter than said base and each lower base turned over the periphery of said mouthpiece and an elastic band adapted to secure the turned portion of said base to said mouthpiece, all substantially as and for the purpose shown and described.

7. A plurality of removable, germicide, thin paper linings for voice transmitting mouthpieces, each frusto-conical shaped and in telescopic relation, an aperture in the upper base of each lining smaller in diameter than said base, each lower base turned back over the periphery of said mouthpiece and a split elastic band adapted to secure said lower base to said mouthpiece, all substantially as and for the purpose shown and described.

8. A germicide attachment for telephone mouthpieces consisting of a plurality of thin germicide paper linings, frusto-conical shaped and arranged in telescopic relation with an aperture in each upper base smaller in diameter than said base and each lower base rearwardly turned and adapted to inclose the larger periphery of said mouth-piece and a retaining means adapted to compress the rearwardly turned part against the outer periphery of said mouthpiece, all substantially as and for the purpose shown and described.

9. The combination with a germicide lining for voice transmitting mouthpieces adapted to inclose the periphery of said mouth piece, of a flat elastic member formed into an uncompleted loop, the free ends oppositely turned and forming loops and prongs attached to said band disposed forwardly and inwardly and adapted to retain said lining in rigid relation to said mouth-piece, all substantially as and for the purpose shown and described.

10. A plurality of removable germicide

linings for voice transmitting mouthpieces, each having the shape of a frustum of a cone and in telescopic relation, an aperture in the upper base of said frustum smaller in diameter than said upper base, the lower base vertically turned over said mouthpiece, an elastic band securing said lower base to said mouthpiece and a means provided in said band for securing same in rigid rela-

tion to said mouthpiece, substantially as described.

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

AUGUSTUS A. WILLIAMS.

Witnesses:

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