Dec. 31, 1929. S. WILSON 1,741,668

SANITARY TELEPHONE ATTACHMENT

Filed June 30, 1926

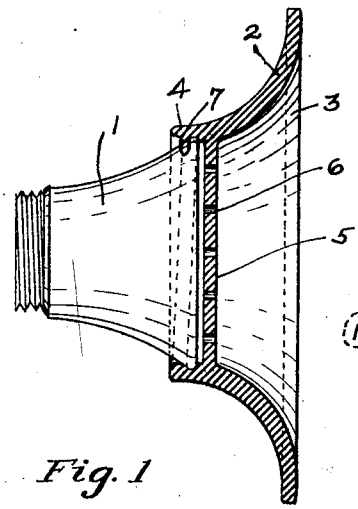


Fig. 1

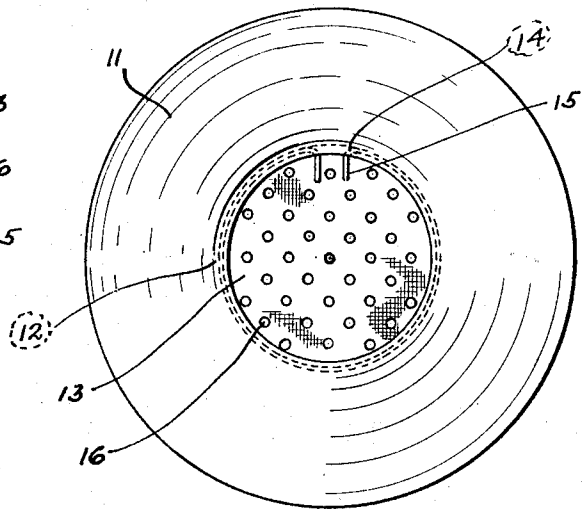


Fig. 2

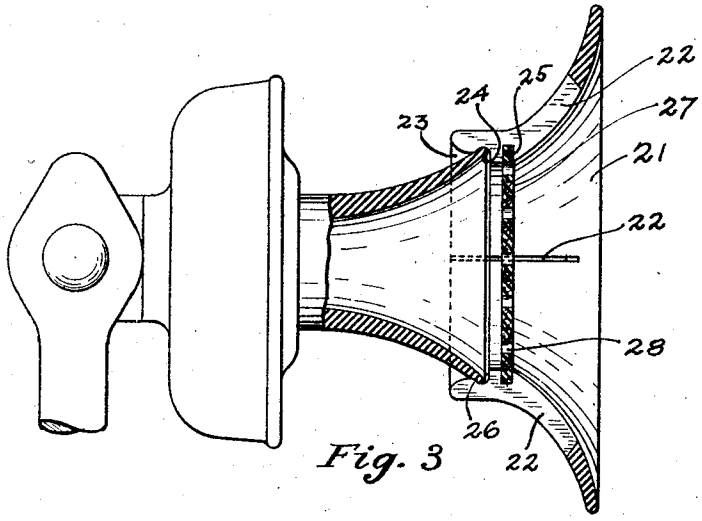


Fig. 3

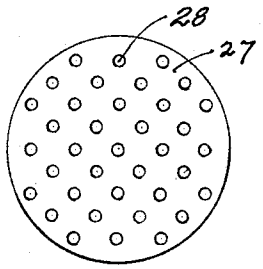


Fig. 4

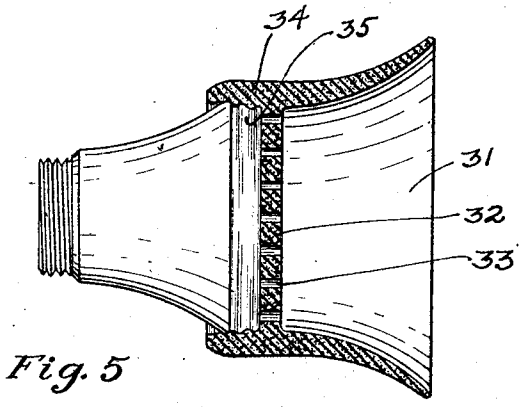


Fig. 5

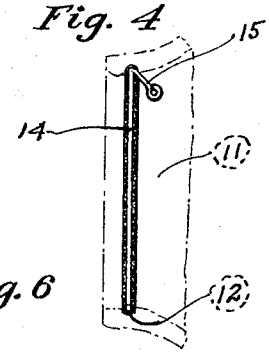


Fig. 6

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UNITED STATES PATENT OFFICE

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SANITARY TELEPHONE ATTACHMENT

Application filed June 30, 1926. Serial No. 119,596.

This invention, as indicated, relates to a sanitary telephone attachment. More particularly, it comprises a funnel-shaped structure having a perforated diaphragm adjacent the smaller end and having means for securing the same to the mouthpiece of a telephone. The device is adapted for manufacture in several different forms and is particularly adapted to contain an ingredient having a decided germicidal effect.

Heretofore it has been proposed to use attachments for telephone mouthpieces which would snap over the outer edge of the standard transmitter mouthpiece and extend inwardly within the same. It has also been proposed to provide a modified form of mouthpiece which would be provided with a temporary outer mouthpiece to be thrown away after use. Such liners for sanitary mouthpieces are not adequate to produce a fully sanitary protection for the user, and such attachments as involve a substitute mouthpiece for the standard mouthpiece are too expensive for general use.

The present invention has for its principal object the provision of an attachment which may be applied to a telephone mouthpiece of standard design with a minimum of effort, and which will provide for an improved transmission through the instrument, as well as afford a perfectly sanitary device to prevent germ transmission through the mouth and throat of the telephone user. A further object of the invention is to provide a mouthpiece of the character described which may be readily carried by the user and applied to any standard mouthpiece which it may be convenient to use, with the full assurance that danger of contamination may be practically eliminated even though a public telephone is used which has been previously used by persons having colds or more serious infections. Another object of the invention is to provide a readily attachable mouthpiece which will have a replaceable diaphragm carrying germicidal ingredients which may be thus renewed from time to time as such preparations lose their efficacy. Other and further objects of the invention will appear in the course of the following description.

To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims; the annexed drawing and the following description setting forth in detail certain structure embodying the invention, such disclosed means constituting, however, but one of various structural forms in which the principle of the invention may be used.

In said annexed drawing:

Fig. 1 is a side elevation of a standard telephone transmitter mouthpiece with one form of my improved sanitary mouthpiece shown in section connected therewith; Fig. 2 is a front elevation of a modified form of sanitary mouthpiece embodying the principle of my invention, said mouthpiece having a removable diaphragm; Fig. 3 is a side elevation partly in section showing still another modified form of mouthpiece involving the principle of my invention; Fig. 4 is a plan view of the removable diaphragm shown in Fig. 3; Fig. 5 is a side elevation partly in section showing another form of sanitary attachment for telephone mouthpiece; and Fig. 6 is a transverse sectional detail view of a removable diaphragm such as is shown in Fig. 2.

As is clearly shown in Fig. 1 of the drawing, my preferred form of sanitary attachment for a telephone mouthpiece 1 comprises a funnel-shaped member 2 having a wide bell-like opening 3 at one end and a substantially cylindrical portion 4 at its smaller end of a size adapted to engage the outer end of said telephone mouthpiece 1. Adjacent said cylindrical portion an integral diaphragm 5 is formed having a plurality of spaced openings 6, through which the sound is transmitted. The cylindrical portion of the mouthpiece is provided with coarse screw threads 7 which permit of such attachment being rotated to firmly engage the outer edge of the standard mouthpiece.

The mouthpiece may be formed of any suitable material of a rigid or semi-rigid character, and is preferably made of a composition in which is embodied a germicidal ingredient. It has been found that by using formaldehyde in connection with seed oil and

other ingredients that a suitable transparent or semi-transparent attachment may be formed which will have decided germicidal properties and which may be readily kept in a perfectly sanitary condition by the user.

In the form of construction shown in Fig. 2 the funnel-shaped member is of substantially the same shape as that shown in Fig. 1, but in place of having an integral diaphragm a flexible, readily removable diaphragm is used instead. The funnel-shaped member 11 is provided adjacent its smaller end with a groove 12, within which is seated a double diaphragm 13, preferably formed of gauze or similar fabric of circular form and engaged over a wire frame 14 comprising a ring bent to circular shape and having its ends 15 projecting inwardly to serve as finger pieces to permit said ring to be compressed to smaller size so that it may be withdrawn from the groove 12. The fabric diaphragm may be perforated at spaced intervals with aligned apertures 16. The fabric is preferably gauze, or some equivalent fabric, which has been impregnated with germicidal agents which will protect the user of the mouthpiece from germs which may have been deposited within the standard mouthpiece by a previous user of such instrument.

In the form of construction shown in Figs. 3 and 4 the extension mouthpiece 21 is provided with a plurality of slots 22 opening toward its rearward smaller portion, which gives the same a slight degree of resiliency so that the sections may snap over the forward edge of the standard telephone mouthpiece. The inner wall of the cylindrical portion 23 of the mouthpiece is provided with a pair of grooves 24 and 25, the groove 24 being adjacent the rearward end and adapted to seat upon the rim of the standard telephone mouthpiece. The cylindrical wall 23 is curved rearwardly of said groove 24 in order to snap over the rim of said mouthpiece, and the rearward edge of said groove 24 is provided with an inclined face 26, which will permit said attachment to be readily withdrawn from said standard mouthpiece. The groove 25 has parallel side walls and is adapted to receive a medicated diaphragm 27 formed of suitable material, such as compressed fiber. Said diaphragm is provided with spaced apertures 28 to permit transmission of vocal sounds therethrough. Said diaphragm is engaged within this groove when the rearward portion of said attachment is spread to a distance slightly greater than that necessary to engage upon the rim of the standard mouthpiece. Thus the diaphragm will remain in position at all times, irrespective of the position of the attachment when the same is removed or attached to the standard mouthpiece.

In the form of construction shown in Fig. 5, the attachment 31 is made of porous material and the diaphragm 32 adjacent the rearward portion thereof is made integral therewith. Spaced apertures 33 are formed through said diaphragm and the cylindrical portion 34 of the structure adjacent the rearward end thereof is provided with a corrugated interior surface 35, which is adapted to frictionally engage the rim of the standard telephone mouthpiece.

The porous material employed in the construction shown in Fig. 5 may be of semi-rigid character, such as papier-mâché, or may be in the nature of natural or artificial stone. Said material, from time to time, will be treated with a solution embodying formaldehyde or some similar germicidal agent, which will thus serve to maintain the attachment in satisfactory sanitary condition.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the structure herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:

1. An attachment adapted to be applied to standard telephone mouthpieces, comprising a body portion of rigid material embodying a germicidal ingredient substantially cylindrical adjacent one end and flared outwardly toward its opposite end to its point of greatest diameter, a diaphragm positioned at the meeting point of said cylindrical and flared outer portion, and fastening means provided on said cylindrical portion for securing said device to a standard telephone mouthpiece.

2. An attachment adapted to be applied to standard telephone mouthpieces, comprising a body portion of rigid material embodying a germicidal ingredient substantially cylindrical adjacent one end and flared outwardly toward its opposite end to its point of greatest diameter, a diaphragm positioned at the meeting point of said cylindrical and flared outer portion, and means provided on the inside of said cylindrical portion inwardly of said diaphragm for engaging a standard telephone mouthpiece.

3. An attachment adapted to be applied to standard telephone mouthpieces, comprising a body portion of rigid material embodying a germicidal ingredient substantially cylindrical adjacent one end and flared outwardly toward its opposite end to its point of greatest diameter, and a recessed surface formed on the inner portion of said cylindrical section of said body member for engaging a standard telephone mouthpiece.

4. An attachment adapted to be applied to standard telephone mouthpieces, comprising a rigid integral body portion substantially cylindrical adjacent one end and flared outwardly toward its opposite end to its point

of greatest diameter, a recessed surface formed on the inner portion of said cylindrical section of said body member for engaging a standard telephone mouthpiece, and an antiseptic compound made a part of the body portion of said attachment.

5. An attachment adapted to be applied to standard telephone mouthpieces, comprising a body portion of rigid material embodying a germicidal ingredient substantially cylindrical adjacent one end and flared outwardly toward its opposite end to its point of greatest diameter, a recessed surface forming on the inner portion of said cylindrical section of said body member for engaging a standard telephone mouthpiece, a diaphragm positioned at the meeting point of said cylindrical and flared outer portion, and an antiseptic ingredient provided in the diaphragm of said attachment.

6. An attachment adapted to be applied to standard telephone mouthpieces, comprising a body portion substantially cylindrical adjacent one end and flared outwardly toward its opposite end to its point of greatest diameter, and a removable diaphragm having a resilient spreading member positioned at the meeting point of said cylindrical and flared outer portion.

7. An attachment adapted to be applied to standard telephone mouthpieces, comprising a body portion substantially cylindrical adjacent one end and flared outwardly toward its opposite end to its point of greatest diameter, and a removable diaphragm having a spring frame positioned at the meeting point of said cylindrical and flared outer portion, said diaphragm being formed of material having antiseptic properties.

Signed by me this 13th day of May, 1926.

STEVEN WILSON.