

J. W. DIXON.
 DISINFECTANT TELEPHONE MOUTHPIECE.
 APPLICATION FILED JUNE 14, 1909.

946,839.

Patented Jan. 18, 1910.

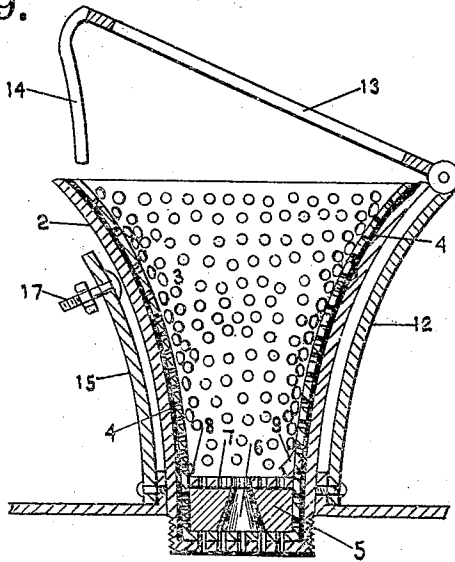


Fig. 1.

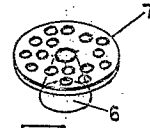


Fig. 3.

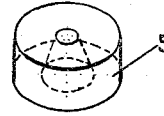


Fig. 4.

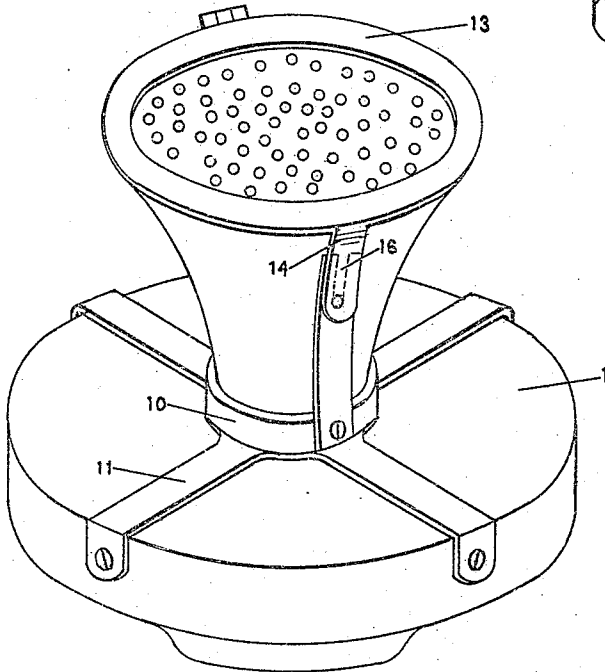


Fig. 2.

WITNESSES:

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DISINFECTANT TELEPHONE-MOUTHPIECE.

946,839.

Specification of Letters Patent. Patented Jan. 18, 1910.

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To all whom it may concern:

Be it known that I, JOSEPH W. DIXON, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Disinfectant Telephone-Mouthpieces, of which the following is a specification.

My invention relates to new and useful improvements in disinfectant telephone mouthpieces. Its object is to provide a disinfectant mouthpiece for telephones that will eliminate the danger of spreading contagious diseases due to exhalation of germs in the mouthpiece.

Another object is to provide a disinfectant device which may be applied to any ordinary transmitter, without interrupting in any way the transmission of sound, and which will employ solid disinfectant matter positioned in the mouthpiece, and provided with means to secure it in such a position.

A further object is to provide a disinfectant mouthpiece which may be produced by adding certain parts to any ordinary mouthpiece, said parts being so devised as to protect the ordinary mouthpiece against breaking or twisting.

Finally, the object of the invention is to provide a device of the character described that will be strong, durable, simple and efficient, and comparatively easy to construct, and also one in which the various parts will not be likely to get out of working order.

With these and various other objects in view, my invention has relation to certain novel features of construction and operation, an example of which is described in the following specification and illustrated in the accompanying drawing, wherein:

Figure 1 is a vertical, sectional elevation of the disinfectant mouthpiece. Fig. 2 is a perspective view of the same attached to an ordinary telephone transmitter. Fig. 3 is a perspective detail of a perforated disk to be superimposed upon the disinfectant matter within the mouthpiece, a funnel being attached to the under surface thereof to transmit sound through the spongy, disinfectant matter employed, and Fig. 4 is a perspective detail of an apertured sponge of disinfectant matter to be placed in the bottom of the mouthpiece.

Referring now more particularly to the drawings, wherein like numerals of reference designate similar parts in all the fig-

ures, the numeral 1 denotes an ordinary telephone mouthpiece, which is threaded into the transmitter. A perforated shell or casing 3 conforming in its shape to that of the mouthpiece is introduced therein, the lateral perforations permitting the entrance into the casing of fumes from disinfectant matter, with which is saturated the felt lining 4, placed between mouthpiece and casing. In the bottom of this shell is placed the disk shaped sponge of disinfectant matter 5, and the perforated disk 7 is superimposed thereupon, its attached funnel 6 extending through the disinfectant sponge to the bottom of the casing. A central aperture in the disk 7 opens into the smaller end of the funnel admitting sound thereto, and the enlarged lower extremity of the funnel allows the sound to escape through a plurality of the perforations on the bottom of the casing. The disk is restricted from upward displacement by means of one or more knobs 8, suitably positioned upon the interior surface of the shell 3, in conjunction with the tongue 9 which is cut in the casing oppositely to the knobs 8, and turned slightly inward. The perforations in the bottom of the casing are made to coincide with those in the bottom of the mouthpiece proper, to facilitate the transmission of sound. When the sponge 5 and disk 7 are being introduced into the shell, the tongue 9 which is resilient, gives sufficiently to permit the entrance of said parts, and when they are in place, it springs back to its normal position above the perforated disk. Since the disk 7, the bottom of the shell 3 and the bottom of the mouthpiece 2 are all perforated, and the disinfectant material is apertured, the sound is enabled to pass freely through the mouthpiece into the transmitter.

A collar 10 encircles the lower portion of the mouthpiece and is provided with radial arms integral with itself whose extremities are turned downward over the edge of the transmitter and screwed into the same. The four screws commonly used upon transmitters at present to attach the tops to the bodies thereof may be made to serve, also to fasten the arms 11 to the transmitter. An upwardly extending arm 12 is attached by any suitable means to the collar 10, and made to curve outwardly, following the contour of the mouthpiece. To the upper extremity of this arm is hinged the ring 13, which is adapted to close down upon the up-

per edge of the mouthpiece and hold the casing securely therein. At a point upon the ring 13 opposite to the hinge thereupon, is attached a downwardly extending arm 14, provided with a transverse aperture in its lower extremity. The arm 14 is sufficiently resilient to permit of its being sprung back to pass over the edge of the transmitter when being lowered or raised. Oppositely to the arm 12, an arm 15 is attached to the collar 10, and extends upwardly and outwardly therefrom, following the contour of the mouthpiece. The upper extremity of this arm is provided with a slot 16, longitudinal therewith. Through the aperture in the lower extremity of the arm 14, and through the slot in the upper extremity of the arm 15, there passes a bolt 17, which serves to fasten the ring 13 in its closed position.

In this device, it is obvious that the shell 3 may be removed whenever desired, to be cleaned or sterilized and to permit the introduction of new disinfectant matter. The preferable disinfectant will be a mixture of gum benzoin and formaldehyde as no unpleasant odor is produced by such a mixture and the disinfectant qualities are of the best.

It is to be particularly noted that the original mouthpiece is reinforced and strengthened by the addition of the parts above described. They prevent twisting of the mouthpiece and the consequent destruction of the threads on the lower extremity thereof, and the ring superimposed upon the upper edge prevents the same from being chipped in falling.

I am aware that changes may be made in the form and construction of parts and details of the device herein-described as the preferable embodiment of my invention, without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations in said device as fairly come within its scope.

What I claim is:

1. In a device of the character described, the combination with a telephone transmitter and its mouthpiece, of a casing having a perforated bottom within the mouthpiece and fitting the sides thereof, disinfectant matter within the casing, means whereby the same is restricted from displacement, a hinged annular cap, adapted to close down upon the upper edge of the mouthpiece, preventing displacement of the casing, means attached to the transmitter to which said cap is hinged and means attached to the transmitter, to which said cap is adapted to fasten when down, substantially as described.

2. In a device of the character described, the combination with a telephone transmitter, and its mouthpiece, of a perforated

shell, fitting within the mouthpiece, an apertured sponge of disinfectant matter in the bottom of said shell, a perforated disk superimposed upon said shell, projections from the inner surface of the shell, preventing displacement of disk and sponge, a hinged ring, adapted to close down upon the upper edge of the mouthpiece, preventing displacement of the casing, means attached to the transmitter, to which said ring is hinged, and means attached to the transmitter, to the upper extremity of which said cap is adapted to fasten when down, substantially as described.

3. In a device of the character described, the combination with a telephone transmitter, and its mouthpiece, of a shell within the mouthpiece having a perforated bottom, a disinfectant sponge in the bottom of the shell, provided with a central aperture, a perforated disk superimposed upon said sponge, a resilient tongue cut in the shell and turned inward to hold said disk in position, a plurality of knobs on the inner surface of the shell, further restraining the disk against displacement, a collar encircling the lower portion of the mouthpiece, a plurality of arms integral therewith and extending radially therefrom, the extremities of which are turned over the transmitter edge and fastened to the side thereof, curved arms extending upwardly and outwardly from said collar at opposite sides thereof, and a ring hinged to the upper extremity of one of said arms, adapted to close down upon the upper edge of the mouthpiece, preventing displacement of the shell therefrom, and to be attached when down, to the other of said arms.

4. In a device of the character described, the combination with a telephone transmitter, and its mouthpiece, of a perforated shell within the mouthpiece, a disinfectant sponge in the bottom of the shell, a lining of absorbent material holding disinfectant matter interposed between the shell and the mouthpiece, a perforated disk superimposed upon said shell, provided with a central aperture opening into the smaller extremity of a funnel attached to the bottom of said disk, said funnel centrally extending through the sponge, means whereby said disk is restricted from upward displacement, a collar encircling the lower portion of the mouthpiece, a plurality of arms integral therewith and extending radially therefrom, the extremities of which are turned over the transmitter edge and fastened to the sides thereof, upwardly extending curved arms attached to said collar at opposite sides thereof, and a ring hinged to the upper extremity of said arms, adapted to close down upon the upper edge of the mouthpiece, and provided with means of attachment to the other of said arms.

5. In a device of the character described, the combination with a telephone mouthpiece, of a perforated shell fitting therein, a lining of absorbent material holding disinfectant matter, interposed between shell and mouthpiece, a sponge of disinfectant matter in the bottom of said shell, a perforated disk superimposed thereupon, provided with a central aperture, a funnel, the smaller extremity of which is attached to the under surface of said disk, communicating with said central aperture therein and extending downward through said sponge to the bottom of the casing, and projections from the inner surface of the shell, preventing displacement of disk and sponge, substantially as described. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH W. DIXON.

Witnesses:

R. E. HILL,
HARRIS SHEA.