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O. W. AAGAARD

AUXILIARY MOUTHPIECE FOR TELEPHONES

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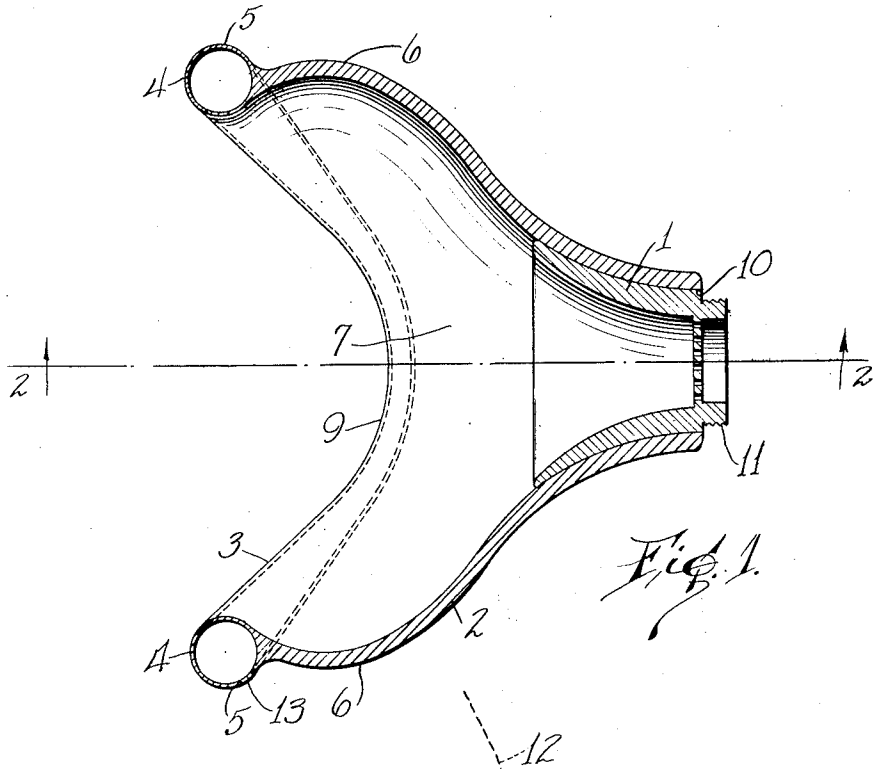


Fig. 1.

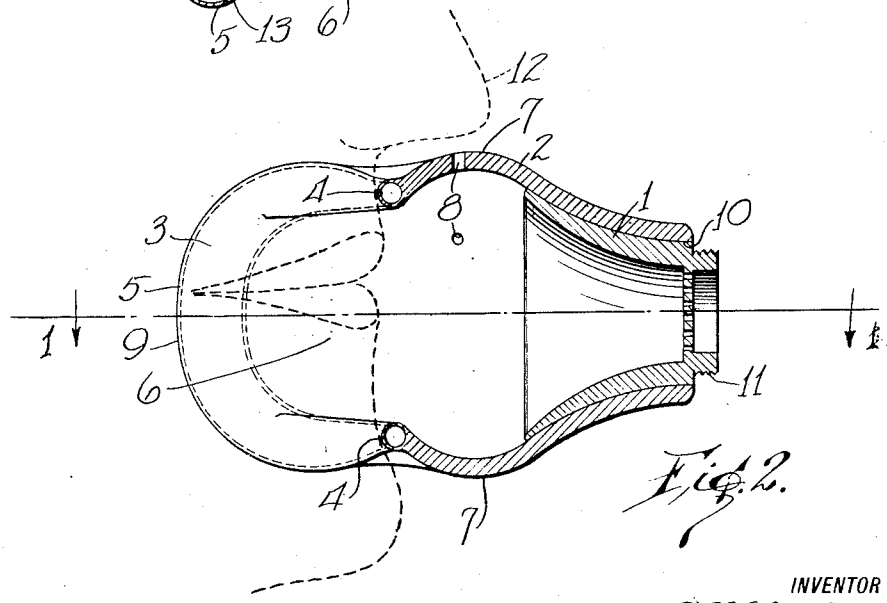


Fig. 2.

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AUXILIARY MOUTHPIECE FOR TELEPHONES.

Application filed January 19, 1922. Serial No. 530,378.

To all whom it may concern:

Be it known that I, OTTO W. AAGAARD, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Auxiliary Mouthpieces for Telephones, of which the following is a full, clear, and exact description.

My invention relates to improvements in auxiliary mouthpieces for telephones, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide an auxiliary mouthpiece which is adapted to be secured to the mouthpiece of a telephone, and which is adapted to readily conform to that portion of the face surrounding the mouth of the operator, whereby all of the sound waves of the voice are directed into the mouthpiece of the telephone, and all external sound waves are prevented from entering the mouthpiece.

A further object of my invention is to provide a device of the type described which is made from a resilient material, and which is provided with a cushioned edge, whereby the edge will more readily conform to the face of the operator.

A further object of my invention is to provide a device of the type described which may be easily attached to the mouthpiece of a telephone without altering the construction of the latter.

A further object of my invention is to provide a device of the type described which is simple in construction, efficient for the purpose intended, and which is not likely to easily get out of order.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which

Figure 1 is a section along the line 1—1 of Figure 2, and

Figure 2 is a section along the line 2—2 of Figure 1.

In carrying out my invention, I make use of an ordinary mouthpiece 1 which is ordinary in construction and which is secured to the telephone instrument (not shown). I then provide an auxiliary mouthpiece 2 which is preferably made of a non-flexible rubber and which is provided with a resilient outer edge 3. It will be apparent from the drawing that the edge 3 of the mouthpiece 2 is shaped so as to conform with the portion of the face adjacent to the mouth of the operator. The edge 3 comprises a thin wall 4 which is resilient and which is substantially circular in cross section. It will be noted that the cylindrical edge 3 is greater in diameter adjacent to the sides 5 of the mouthpiece and is less in diameter adjacent to the top and bottom of the mouthpiece. This construction provides an edge 3 which is adapted to conform with the sides of the face adjacent to the mouth, and also to act as cushions between the non-resilient portion of the mouthpiece and the face of the operator. The portions 6 adjacent to the sides 5 are curved outwardly so as to give the utmost freedom to the person using the device. In like manner, the portions 7 are also curved outwardly adjacent to the top and bottom of the mouthpiece. The upper portion of the mouthpiece is provided with a plurality of openings 8 for a purpose hereafter described.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. The device may be easily assembled to the mouthpiece 1, and, when assembling the device, the mouthpiece 1 is first removed from the telephone (not shown), and is inserted into the enlarged opening 9 of the mouthpiece 2. The mouthpiece 2 is provided with a smaller opening 10, the walls of this opening being so shaped as to snugly receive the outer wall of the mouthpiece 1. The wall of the mouthpiece 2 is resilient enough, and is shaped so as to securely grip the mouthpiece 1. The threaded portion 11 of the mouthpiece 1 extends beyond the opening 10 and may now be readily secured to the telephone in the ordinary manner. It will be noted that the opening 9 is substantially elliptical in cross section and is slightly U-shaped. The longer axis of the opening 9 is disposed in a horizontal plane.

In Figure 2, I have shown the dotted outline of the position of the operator's face when he is using the device. It will be apparent that the nose 12 extends above the top of the mouthpiece 2 as is clearly shown in Figure 2. In the devices of which I am

aware, the auxiliary mouthpiece also encloses the nose of the person using the device and thus causes undue discomfort to the person. The edge 3 readily conforms itself to the portion of the face adjacent to the mouth and effectually directs all of the sound waves from the operator into the mouthpiece 1. The person at the other end of the wire will have less difficulty in hearing, since all of the sound waves are transmitted directly into the telephone transmitter (not shown). It is further obvious that outside noises cannot reach the mouthpiece 1 when the device is in use, since the opening 9 of the auxiliary mouthpiece 2 is closed by the face of the person using the device. The wall 4 of the edge 3 so readily conforms to the face of the operator that a slight vacuum would be produced within the mouthpiece 2 in case the operator moved his face slightly away from the mouthpiece 1. This would result in stopping the sound waves emitted from the mouth of the operator. I therefore provide the openings 8 in the mouthpiece 2 to obviate this disadvantage. The openings 8, while permitting the pressure inside of the mouthpiece 2 to always remain constant with the pressure outside of the mouthpiece, are not large enough to allow the voice of the operator to pass therethrough.

From the foregoing it will be apparent that I have provided an auxiliary mouthpiece which may be readily secured to the ordinary telephone mouthpiece, and which is adapted to slightly conform with the portion of the face adjacent to the mouth of the operator so as to direct all of the sound waves from the operator into the transmitter and to prevent any external sound waves from entering the transmitter. I further provide a device in which the pressure therewithin will remain constant with the external pressure. As heretofore stated, the device does not enclose the nose of the operator and therefore causes no undue discomfort to the operator. The device is simple in construction, efficient for the purpose intended and may be readily used by anyone.

In order to make the edge 3 as resilient as possible, I provide the wall 4 with an opening 13 therein. It will thus be seen that when the face contacts the edge 3, the wall 4 will readily conform to the contours of the face, since the air enclosed by the wall 4 will not be compressed when the wall 4 is moved inwardly but will flow through the opening 13.

I claim:

1. A mouthpiece having one end thereof fashioned into an elliptical opening, two diametrically disposed portions of the opening extending inwardly with respect to the plane of the opening whereby the opening is substantially U-shaped in cross section, the edge of the opening being provided with a cylindrical-shaped wall, the portion of the cylindrical-shaped edge disposed in the inwardly bent portions of the opening having diameters smaller than the diameters of the cylindrical edge spaced 90° therefrom, said mouthpiece having a smaller opening at its other end, the wall of the smaller opening being adapted to securely grip a telephone mouthpiece.

2. A mouthpiece having one end thereof fashioned into an elliptical opening, two diametrically disposed portions of the opening extending inwardly with respect to the plane of the opening whereby the opening is substantially U-shaped in cross section, the edge of the opening being provided with a cylindrical-shaped wall, the portion of the cylindrical-shaped edge disposed in the inwardly bent portions of the opening having diameters smaller than the diameters of the cylindrical edge spaced 90° therefrom, said mouthpiece having a smaller opening at its other end, the wall of the smaller opening being adapted to securely grip a telephone mouthpiece, the wall of said mouthpiece disposed between the two ends thereof, being curved so as to provide concave inner surfaces adjacent to the enlarged opening.

3. A mouthpiece having one end thereof fashioned into an elliptical opening, two diametrically disposed portions of the opening extending inwardly with respect to the plane of the opening whereby the opening is substantially U-shaped in cross section, the edge of the opening being provided with a cylindrical-shaped wall, the portion of the cylindrical-shaped edge disposed in the inwardly bent portions of the opening having diameters smaller than the diameters of the cylindrical edge spaced 90° therefrom, said mouthpiece having a smaller opening at its other end, the wall of the smaller opening being adapted to securely grip a telephone mouthpiece, the wall of said mouthpiece disposed between the two ends thereof, being curved so as to provide concave inner surfaces adjacent to the enlarged opening, and having a plurality of openings therein.

OTTO W. AAGAARD.