M. M. WOOD.

TELEPHONE TRANSMITTER MOUTHPIECE.

APPLICATION FILED DEC. 3, 1908.

952,164.

Patented Mar. 15, 1910.

Fig. 4.

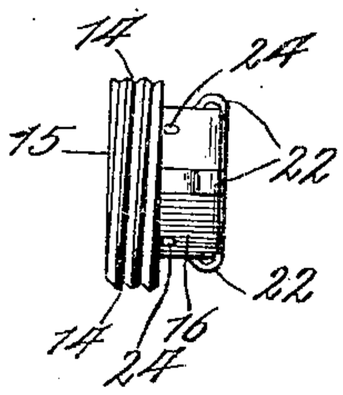

Fig. 1.

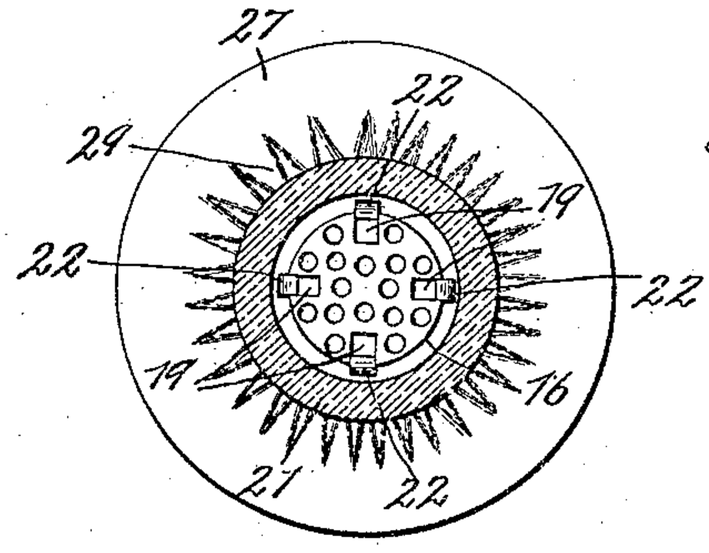

Fig. 2.

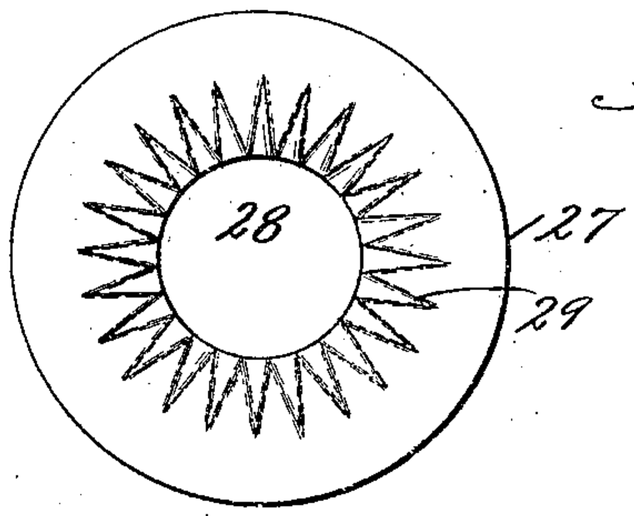

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

MONTRAVILLE M. WOOD, OF BERWYN, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO W. H. FOLL, OF FREEPORT, ILLINOIS.

TELEPHONE-TRANSMITTER MOUTHPIECE.

952,164. Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed December 3, 1908. Serial No. 465,800.

To all whom it may concern:

Be it known that I, MONTRAVILLE M. WOOD, a citizen of the United States, residing at Berwyn, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Telephone-Transmitter Mouthpieces, of which the following is a specification.

This invention relates to mouth-pieces for telephone transmitters and its object is to provide such a device which can be easily assembled for use and taken apart for cleaning, at the same time providing satisfactory exits for air at the side of the mouth-piece so as to avoid packing of the transmitter.

The invention consists in the use of a novel cushion device in combination with mechanism for attaching the transmitter cone in position so that glass or other similar material which does not readily yield to the use of either glue or screws or the like may be used and readily attached and detached for cleaning without there being any rattle effect to mar the efficiency of the instrument.

It also consists in the novel means for providing ventilation of the transmitter so as to prevent packing of the transmitter, and in other details of construction which will be hereinafter more fully described and claimed.

Referring to the drawings, Figure 1 is a central sectional side view of mechanism illustrating the preferred form of this invention. Fig. 2 is a front sectional view on the line 2—2 of Fig. 1. Fig. 3 is a detail view of the corrugated disk by means of which ventilation of the transmitter is obtained. Fig. 4 is a side view of the thimble upon which the transmitter cone is supported.

Some specific embodiment of the invention must be illustrated and one of the preferred forms is here shown, though manifestly many variations may be made without departing from the broad spirit of this invention. Referring to such preferred form illustrated in the drawings, the device is shown attached to the front part or plate 10 of an ordinary transmitter casing or box. In this plate 10 is formed the usual circular opening inclosed by the flange 11, screw threaded at its interior in the screw threads 12, as shown. Screw threaded into the threads 12 is a metallic cap or thimble 15 having screw threads 14 adapted to engage the threads 12 heretofore described; a contracted portion 16 in front of the screw threaded portion, and an enlarged head or flange 17 connecting said contracted portion 16 and with the front face 18 having the perforations 19 as shown. The contracted portion 16 of this thimble is, as shown, in the form of an annular recess in which an interior annular flange 20 of the telephone transmitter cone 21 is adapted to fit, as shown. In at least three equidistant points about the circumference of the front of the thimble 15 (in the particular case here shown at four such points) are cut spring members 22 which detachably engage the flange 20 of the transmitter cone 21 and thus hold it in place adjacent to the transmitter box wall 10. It hardly need be stated that the thimble is made of material having sufficient spring action so that these members 22 act as stated and allow the flange 20 of the transmitter cone to pass over them when the cone is inserted in place, and then spring back to the positions of Fig. 1, thereby holding the transmitter cone 21 in place. By the use of this construction, it is possible to use a glass or other fragile form of transmitter cone and detachably secure it in place upon the thimble without the aid of cement, glue or screws or anything of that sort. In fact, without any surface mutilation of the material of the cone.

Attention is called to the fact by the use of the thimble with the perforated front face 18 the transmitter of the telephone not here shown but always located inside the transmitter box or case, is protected from accidental injury by instruments inserted in the cone 21 or by their coming in contact with it when the cone is removed for cleaning or sterilization.

It has been found in previous practice that a telephone transmitter cone requires ventilation at its base in order to prevent the packing of the carbon dust ordinarily used in the transmitter. In the preferred form of the invention here illustrated, the result is obtained by placing in the rear portion of the contracted member 16, adjacent to the screw threaded member of the thimble 15, a plurality of openings 24 which provide passageways from the interior of the sound passageway of the device to the outside air. Over these openings 24 and be-

tween the wall 10 of the box and inner or bottom rim of the cone 21 is placed a circular cushion disk 27. This disk is stamped or has otherwise formed in it a plurality of corrugations 29 extending around the central opening 28. They are so shaped that they both act as semi spring cushions for the transmitter cone and form a plurality of passageways from the openings 24 heretofore described to the open air. These corrugations 29 are of sufficient number and depth so that no matter what position the disk 27 may assume when the parts are in final adjusted position there will always be plenty of passageways leading outwardly from the openings 24.

In the operation of the device, the parts are assembled in the positions shown in Fig. 1, in which position, as stated, there are plenty of passageways leading from the interior of the device through the openings 24 and the spaces between the corrugations 29, the walls of said corrugations acting at the same time as a cushion which keeps the cone in noiseless or non rattling grasp of the springs 22.

What I claim as new, and desire to secure by Letters Patent, is:

1. In a device of the class described the combination of a telephone transmitter case or box, a transmitter cone therefor, a flange upon the interior of the cone and spring mechanism carried by the box detachably engaging said flange.

2. In a device of the class described in combination with the wall of a transmitter box or case, a thimble detachably secured thereto, spring catches on the front of the thimble and a transmitter cone detachably secured to said spring catches.

3. In a device of the class described in combination with the wall of a transmitter box or case, a thimble detachably secured thereto, spring catches on the front of the thimble, a transmitter cone detachably secured to said spring catches and a disk interposed between the cone and the transmitter box there being openings in the side wall of the thimble and along the plane of said disk for the passage of air as described.

4. In a device of the class described in combination with the wall of a transmitter box or case, a transmitter cone, means for securing the cone to the box and a disk between the cone and box, there being openings substantially in the plane of the disk through which air may pass as described.

5. In a device of the class described in combination with the wall of a transmitter box or case, a transmitter cone, means for securing the cone to the box and a disk between the cone and box having corrugations formed in its face providing air passageways for the escape of air as described.

6. A thimble for use in mechanism of the class described, means for attaching it to a transmitter box, and means for securing a transmitter cone to it, there being air passageways through the sides of the thimble as and for the purposes set forth.

7. In mechanism of the class described, a transmitter box or case, a mouthpiece or cone, cushion means between the two and means for securing all together, there being openings through the cushion means through which sound waves may escape for the purposes set forth.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

MONTRAVILLE M. WOOD.

Witnesses:

DWIGHT B. CHEEVER,

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