

S. S. WILLIAMSON.
SECONDARY MOUTHPIECE FOR TELEPHONE TRANSMITTERS.
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1,041,545.

Patented Oct. 15, 1912.

Fig. 1.

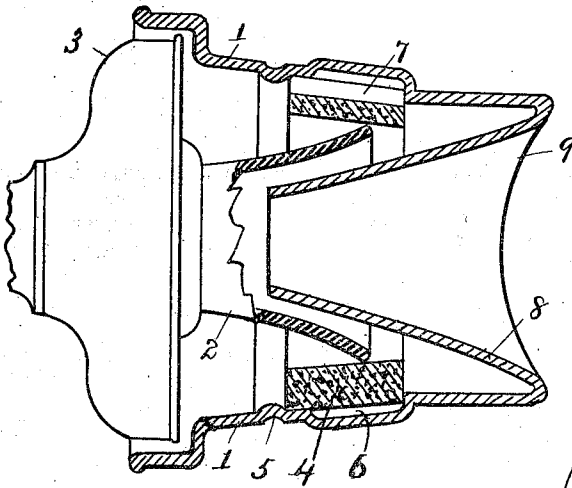


Fig. 2.

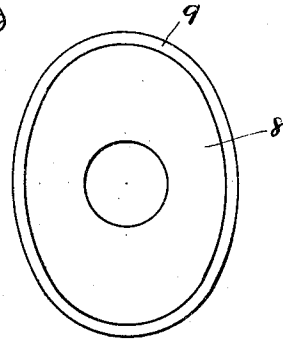
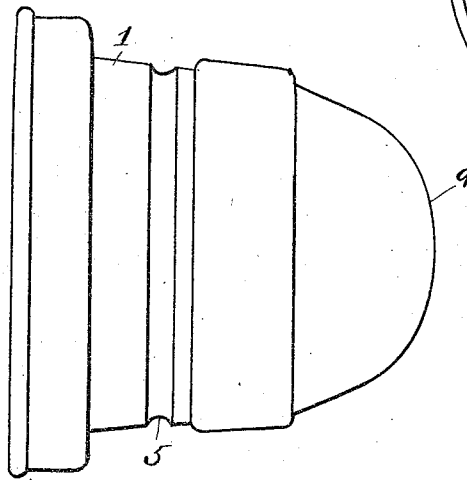


Fig. 3.



Witnesses

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SECONDARY MOUTHPIECE FOR TELEPHONE-TRANSMITTERS.

1,041,545.

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To all whom it may concern:

Be it known that I, SAMUEL S. WILLIAMSON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Secondary Mouthpieces for Telephone-Transmitters, of which the following is a specification.

My invention relates to a new and useful improvement in secondary mouth pieces for telephone transmitters, and has for its object to provide an exceedingly simple and effective device of this description which may be readily placed over the ordinary mouth piece of the transmitter entirely inclosing said ordinary mouth piece and partially inclosing the head of the instrument. When thus placed, my secondary mouth piece may be used to so muffle the voice as to prevent the hearing of the conversation by any one in close proximity to the speaker.

A further object of my invention is to concentrate the sound waves from the voice of the speaker so as to intensify the action on the diaphragm transmitter thus increasing the facility with which a conversation may be carried on over the telephone.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand the same, I will describe its construction in detail, referring by numeral to the accompanying drawing forming a part of this specification, in which—

Figure 1, is a longitudinal section of my improved secondary mouth piece, showing it in position over the ordinary mouth piece, and surrounding the head of the transmitter. Fig. 2, a front view of the mouth piece, and Fig. 3, an elevation of the secondary mouth piece, taken at right angles to Fig. 1.

In carrying out my invention as here embodied I form what I prefer to call a muffler of a single piece of glass or other suitable material, consisting of the body 1, adapted to surround the ordinary mouth piece 2 of a telephone transmitter, and this body I prefer to extend so that it will partly inclose the transmitter head 3, as clearly shown in Fig. 1.

4 represents a ring or band of compressible or elastic material, such as cork, rubber or the like, set inside of the body and prevented from withdrawal by the annular shoulder 5. A clearance or space 6, is formed around the compressible ring so as to give it greater elasticity or range of action. The function of this compressible ring is to hold the device in place upon the instrument and divide the interior of the body into two compartments when the device is in use.

In applying the device to the telephone transmitter, the body is placed over the ordinary mouth piece until the outer edges of said mouth piece come in contact with the inner walls of the compressible or elastic ring, when by forcing the device home, the compressibility and elasticity of the ring will exert sufficient pressure upon the ordinary mouth piece 2, to hold the device in the proper position as clearly shown in Fig. 1. This also makes a division between the inner and outer compartment in the body of the device cutting off the communication of air between the two except through the small groove 7 formed in the compressible ring.

8 is the funnel shaped extension which projects inward from the outer edges of the secondary mouth piece to a considerable distance within the body so as to pass within the ordinary mouth piece 2 as clearly shown and the secondary mouth piece is so formed at its outer edge 9, as to surround the lips of the speaker and thus house in the conversation. By this construction it will be seen that the sound waves passing from the speaker's mouth will be muffled from the surrounding air by the walls of the ordinary mouth piece 2, and the outer walls of the body of the device and also that the vibrations which are set up in the face portion of the head 3 of the instrument are housed in the rear compartment of the body thus modifying their action upon the surrounding air and as the sound waves from the mouth of the speaker must pass down the extension 8, around the inner edges thereof and downward to the inner compartment and then escape through the groove 7 to the outer compartment before finally reaching the atmosphere and it will be obvious that the voice will not be audible to persons in the vicinity of the telephone when a conversation is being carried on,

In practice, I prefer to make my device of a single piece of glass, blown or pressed into shape, as glass has many advantages over most materials and is easily cleaned and kept sanitary, but of course rubber, celluloid, papier-mâché, metal or other material might be used for this purpose.

Of course I do not wish to be limited to the exact details of construction as here shown, as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, is—

1. As a new article of manufacture, a secondary mouth piece for telephone transmitters made of a single piece of glass and having a body for surrounding the ordinary mouth piece and the head of the transmitter, and an extension adapted to project into the ordinary mouth piece as specified.

2. A secondary mouth piece for telephone transmitters consisting of a body divided into two compartments by a compressible and elastic ring and a funnel shaped extension projecting into the body and adapted to pass into the ordinary mouth piece of the telephone instrument when the device is placed in position thereon as specified.

3. In a secondary mouth piece for telephone transmitters the combination of a body, a funnel shaped extension formed therewith and projecting within said body, an annular shoulder formed on the interior of the body, a ring secured in place by said shoulder and an enlargement in the body forming a recess around the ring for giving

the latter limited movement as and for the purpose set forth.

4. As an article of manufacture, a muffler formed from a single piece of material provided with an inwardly projecting extension, open at both ends and a mouth piece adapted to inclose the head of the transmitter and the ordinary mouth piece while the extension projects into said ordinary mouth piece.

5. As an article of manufacture, a muffler formed from a single piece of material provided with an inwardly projecting extension open at both ends, a mouth piece adapted to inclose the head of the transmitter and the ordinary mouth piece while the extension projects into said ordinary mouth piece and means for holding the muffler upon the instrument.

6. As an article of manufacture, a muffler formed from a single piece of material provided with an inwardly projecting extension open at both ends, a mouth piece adapted to inclose the head of the transmitter and the ordinary mouth piece while the extension projects into said ordinary mouth piece, and means coacting with the body and the ordinary mouth piece for holding the muffler upon the instrument.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

SAMUEL S. WILLIAMSON.

Witnesses:

MAY E. HAMER,
FRANCIS A. POCOIL.