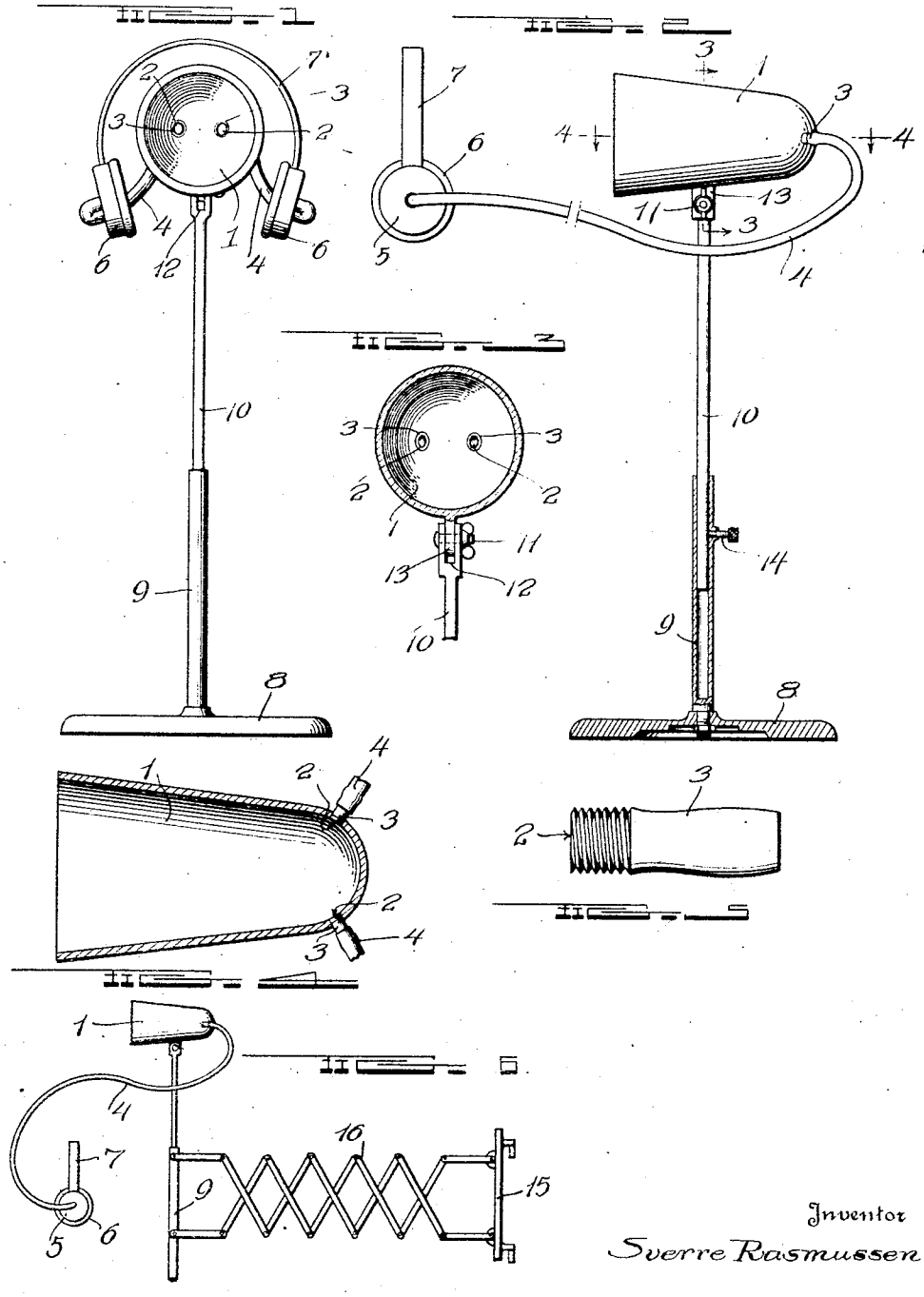
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S. RASMUSSEN

CANTAPHONE

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CANTAPHONE.

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To all whom it may concern:

Be it known that I, SVERRE RASMUSSEN, a subject of the King of Norway, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cantaphones, of which the following is a specification.

This invention relates to means for aiding vocal students, public singers and speakers and dramatists, in the development and placement of the voice, in diction and enunciation, and also in restoring to normal conditions an overworked and strained voice.

I have found that by transmitting the sounds of the voice from a transmitting member, the strong, sharp sound in vocal production and also the sound developed in the transmitting horn, have been eliminated, leaving a clear, soft tone to be received in the ears. By thus transmitting the tone it makes it very easy to distinguish any faults in vocal production and in speech.

When speaking into the device, which I term a cantaphone, the slightest errors or mistakes in pronunciation or enunciation are clearly heard and easily corrected.

The device is simple in its nature, no diaphragm or sound magnifying means are employed, and it embodies essentially a hollow member, ear pieces, and rubber tubes connecting said hollow member with the ear pieces, suitable means being provided for supporting the device, preferably adjustably, from the floor, or from a wall or other support.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawing, which, with the numerals of reference marked thereon, form a part of this specification, and in which

Figure 1 is a face view of my improved device.

Figure 2 is a view at right angles thereto, with the lower portion of the support in vertical section.

Figure 3 is a vertical cross section on the line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a horizontal section on the line 4—4 of Figure 2, looking in the direction of the arrows.

Figure 5 is an enlarged detail, partly in section, of one of the tube attaching members.

Figure 6 is an elevation, showing a modified form of supporting means.

Like numerals of reference indicate like parts throughout the different views.

Referring to the drawings,

1 designates a conical shaped hollow member or transmitter, of hard rubber, fibre, or any other suitable material of requisite dimensions, in the smaller end of which are two holes 2, in which are screwed or otherwise affixed the short tubular members 3 of hard rubber, fibre or other material the same as the transmitter 1, the inner ends of the members 3 being flush with and following and forming a continuity of the inner wall of the member 1, as seen in Figure 4. To these short tubes 3 are connected the rubber tubes 4, the other end of each of which is connected with the center of a disk 5 of hard rubber or other suitable material forming a part of the ear pieces 6 which are adapted to cover the ears and to support and hold the two transmitting tubes 4 in position. These ear pieces are supported by an arched spring member 7, which is adapted to go over the top of the head and support the ear pieces in position.

The device thus constructed may be supported in any desired position in any suitable manner. It may be hung upon the wall or any other support in any convenient way. It may be supported from the floor as, for instance, as shown in Figures 1 and 2, wherein 8 is a base member supporting the tubular member 9 in which is received telescopically the member 10 which is pivotally connected with the member 1, as by a screw bolt 11 passed through the bifurcated portion 12 at the upper end of the member 10 and the depending lug 13 rigid with the member 1, as seen clearly in Figure 3. By this means the member 1 may be moved upon the pivot 11 to any desired position, while by means of the set screw 14 the device may be adjusted vertically.

In Figure 6 I have shown another way of supporting the device which consists of a plate 15 adapted to be affixed to a wall or other support, and connected with the upright 9 by means of the lazy tongs, as shown. This provides for adjustment of the member 1 as may be desired. These

are only some of the various ways of supporting the device.

In use, the ear pieces are placed against the ears, the member 1 being properly adjusted so that when the person using the same sings or speaks into the said member the sound is conveyed through the tubes 4 to the ears and thus any faults in vocal production or enunciation are at once readily detected and easily corrected, thus furnishing a simple means of enabling the singer or speaker to not only readily detect any defects in diction, pronunciation or enunciation, but enables him to readily correct the same. The sound conveyed to the ears is exactly the same as that received in the member 1.

It is to be noted that by the use of my device the sound is not amplified, but just the opposite effect results. The tones are not amplified, but the vibrations are concentrated in their relative space and when received by the ear have been diminished and the over-tones produced in the conical shaped body have been eliminated by reason of the passing of the sound through the flexible rubber tubes. The tone, when received by the ear, is exactly as before it enters the device, except that it is diminished; the strongest tones will not be too loud for the ear to receive.

What is claimed as new is:—

1. A device of the character described, embodying a hollow member, means for supporting the same with its open end toward the speaker, ear pieces, and flexible tubes connecting the closed end of said member with said ear pieces to convey to the ears, without amplification the sound exactly as it is enunciated by the speaker.

2. A device of the character described, comprising a conical tubular member closed at its smaller end, ear pieces, and rubber tubes connecting the latter with the smaller end of said member to convey to the ears, without amplification the sound exactly as it is enunciated by the speaker.

3. A device constructed to aid in the development and placement of the voice, the same comprising a sound receiver closed at one end, outlets from the closed end, ear pieces, and means connecting said outlets with the ear pieces to convey the sound, without amplification, from the mouth of the speaker through said receiver, outlets and means to the ears of the speaker.

In testimony whereof I affix my signature.

SVERRE RASMUSSEN.