R. B. SMART.

SOUND CONDUCTING AURAL DEVICE.

APPLICATION FILED APR. 7, 1916.

**1,224,331.** Patented May 1, 1917.

Fig. 1.

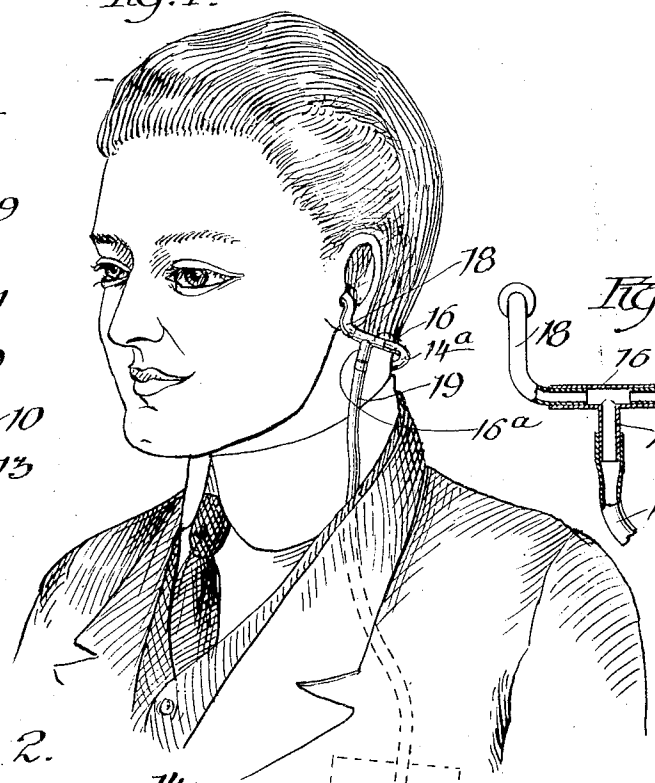



Fig. 4.

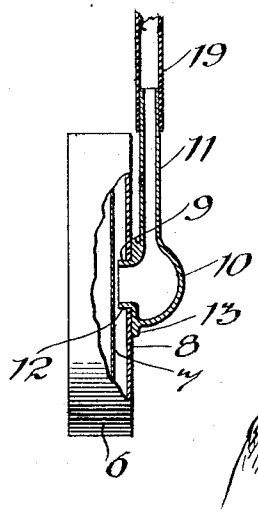



Fig. 5.




Fig. 2.

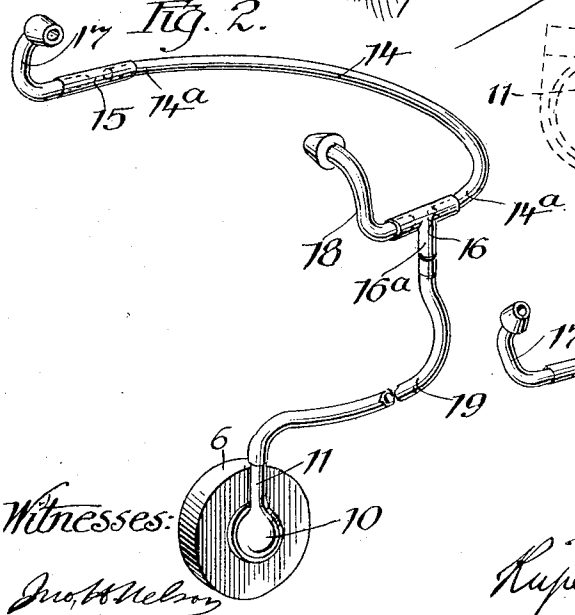
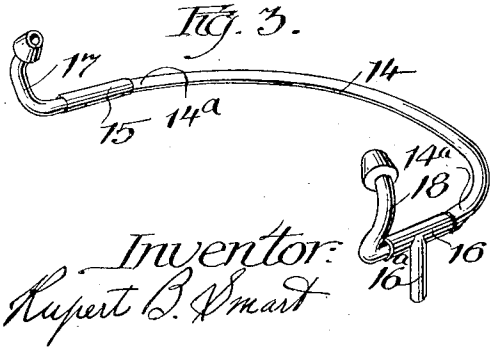



Fig. 3.




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THE NORRIS PETERS CO., PHOTO LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

RUPERT B. SMART, OF CHICAGO, ILLINOIS.

## SOUND-CONDUCTING AURAL DEVICE.

1,224,331. Specification of Letters Patent. Patented May 1, 1917.

Application filed April 7, 1916. Serial No. 89,530.

*To all whom it may concern:*

Be it known that I, RUPERT B. SMART, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Sound-Conducting Aural Devices, of which the following is a full, clear, and exact description, enabling those skilled in the art to make and use the same, reference also being had to the accompanying drawings, forming a part hereof.

My invention has reference to a sound conducting aural device or ear tube attachment for an audiphone receiver or ear piece such as heretofore has been clamped in position over the ear by a clumsy and unsightly head clamp, much to the personal inconvenience and discomfort of the wearer, particularly felt when in public by reason of the attention it attracted.

The principal objects of the invention are to overcome these disadvantages; to produce a light and cheap device capable of ready attachment to the usual audiphone receiver and which when in use is barely discernible, if at all, either by the wearer or the public; and to provide a device constructed and arranged to maintain itself in operative position irrespective of any movement of the wearer, a device capable of being worn in comfort privately and publicly, and a device adapted to be quickly taken apart, folded and placed in the pocket when not in use.

The invention also contemplates certain novel details of construction, combination and arrangement of parts of the device, whereby certain advantages are attained, as will be more fully described hereinafter, and pointed out in the claim.

These, together with such other objects as may hereinafter appear, or are incident to my invention, I attain by means of the construction illustrated in preferred form in the accompanying drawings, wherein:—

Figure 1 is a pictorial view illustrating my novel device and the manner of its use;

Fig. 2 represents a view in perspective of the device in position for use;

Fig. 3 is a perspective view showing the ear pieces in disengaged position; and

Figs. 4 and 5 represent sectional views detailing the connections at the ends of the flexible sound conducting tube.

Referring to the drawings, 6 indicates the audiphone receiver which may be suitably carried in an inside vest pocket, as shown in Fig. 1, the receiver having the customary sound disk 7 and cover plate 8 formed with the aperture 9 in relation to said disk.

The numeral 10 indicates a chambered fitting formed with an extension 11 disposed in parallelism with the face of the cover plate 8 and provided with a socket portion 12 fitting tightly in the aperture 9 and a flanged portion 13 seated upon that portion of the plate 8 about the aperture, the axes of the extension 11 and socket 12 having substantially a right angular relation, permitting the receiver to be carried in the manner shown.

The numeral 14 indicates a member formed of hollow metallic tubing, preferably aluminum, curved to conform to the shape of the back part of the neck just above the line of the collar and having its rigid ends $14^a$ connected by trunnions 15 and 16 with the ear-pieces 17, 18, the trunnion 16 being desirably in the form of a T and provided with the depending branch member or socket $16^a$, which latter is connected with the extension member 11 by the flexible tubing 19, the major part of whose length is carried under the coat and is thus practically hidden from view.

A reference to Figs. 2 and 3 illustrates respectively the operative and disengaged positions of the ear pieces 17 and 18, both said members being rebent to extend upwardly, and then inwardly in opposite directions at right angles to the axis of their respective trunnions, thus permitting lateral outward movement of the ear pieces to disengage from the ears when the device is to be removed, and vice versa. The head piece member 14 being rigid and curved in its construction maintains the ear pieces in position and any downward pull which may be exerted by the flexible tube would be transmitted to the neck rather than to the ears. It will be obvious that this tube may be employed on either side of the head by shifting the trunnions. When it is desired to remove and pocket the device, the ear pieces are first moved outwardly to clear the ears and then turned inwardly until their upwardly extending portions lie in the same plane and in substantially the plane of the connecting member 14.

From the foregoing description, the es-

sential features, elements and operation of my device, together with its simplicity and other advantages thereof, will be clearly apparent to those skilled in the art.

What I claim is:

In a device of the character described, the combination of an audiphone receiver designed to be carried in the clothing of the wearer, ear projecting means, and a sound conducting device therefor comprising a rigid tubular neck-piece communicating with said means, and a single flexible tube adapted to extend upwardly from said receiver to said neck piece, said neck-piece shaped to conform substantially with the neck of the wearer and having a trunnion connection with said means, substantially as and for the purposes set forth.

In testimony whereof I have hereunto signed my name.

RUPERT B. SMART.

**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."**