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May 29, 1923. 1,457,211

V. C. CRITES

RECEIVER FOR TELEPHONES

Filed June 29, 1922

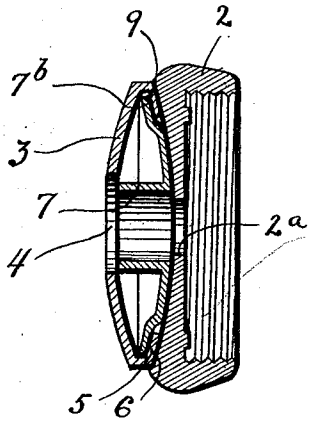


Fig. 2.

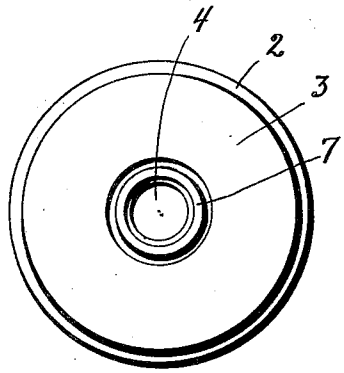


Fig. 4.

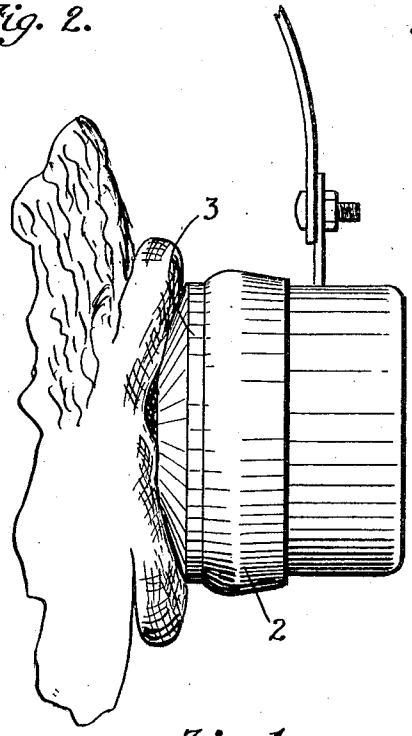


Fig. 1.

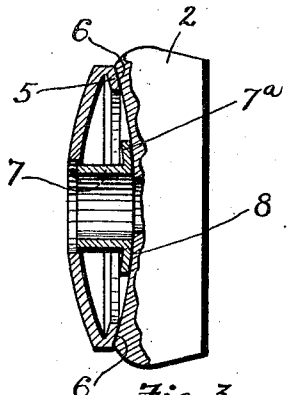


Fig. 3.

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Patented May 29, 1923. 1,457,211

UNITED STATES PATENT OFFICE.

VIRGIL C. CRITES, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO FRANK C. MASON, OF LOS ANGELES, CALIFORNIA.

RECEIVER FOR TELEPHONES.

Application filed June 29, 1922. Serial No. 571,675.

To all whom it may concern:

Be it known that I, VIRGIL C. CRITES, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Receivers for Telephones, of which the following is a specification.

This invention relates to telephone receivers and other devices applicable to the human ear for the purpose of directing sound waves to the ear.

More particularly the present invention relates to means for protecting the ear from direct contact with the hard receiver shell and to provide for the comfortable fitting of the receiver to the ear. Another object is to provide a device of extremely simple, substantial, practicable and durable form.

Other objects and advantages of the invention will become manifest in the following specification of embodiments of the invention which are illustrated in the accompanying drawings, wherein;

Figure 1 is a side elevation of the receiver applied.

Fig. 2 is a central axial section of a form of the invention.

Fig. 3 is a central radial section and partial elevation of another form of invention.

Fig. 4 is a face view of the device of Fig. 2.

This invention consists broadly in the combination with the usual hard shell 2 of a telephone receiver or other instrument applicable to the ear, of a pad-forming device to act as a cushion between the ear and the hard shell so as to eliminate the soreness and pain created by the application of the ear piece. Preferably the cushioning means includes a disc-like shield 3 of pliant or soft material, such, for instance, as rubber; the shell having a central sound aperture 4 and having means for attaching the marginal part of the disc to the margin of the face of the shell 2. The shield is here shown as having an inturned, peripheral flange 5 which may be adhesively secured to the face of the ear piece or shell as indicated by the adhesive material 6. To provide for efficient conductivitiy of the sound waves from the receiver to the inner ear I prefer that a conducting tube 7 also of yieldable material be employed and be capable of arrangement concentrically with the usual sound aperture 2^a.

This tube may have a flange 7^a adhesively secured at 8 to the face of the receiver shell as in Fig. 3, and the flange 7^a may, if desired, be of sufficient diameter to overlap the flange 5 as shown in Fig. 2 at 7^b. In this latter form the outer margin of the flange 7^b is adhesively secured as at 9 to the inwardly turned flange 5 of the pad-like shield 3. The tube 7 is preferably of slightly less diameter than the aperture 4 of the shield, so that when the receiver is applied to the ear, the shield 3 may collapse under pressure between the ear and the shell 2, and the tube 7 will therefore, being independent of the shield 3, advance to project into the ear and provide for the effective conduction of sound waves to the inner ear.

Various modifications may be resorted to within the scope of the appended claims.

What is claimed is:

1. In an instrument applicable to the human ear to facilitate hearing, and having a hard shell, a cushion means attached to the face of the shell and which is adapted to rest against the ear, said means including a collapsible shield having an aperture, and a tube leading from the sound aperture of the shell through the shield so as to advance therethrough to project into the ear when the shield collapses.

2. A cushioning pad for the shells of telephone receivers and other instruments applicable to the ear, comprising a disc-like flexible shield yieldingly attached to the face of the shell and a sound-conducting tube of yieldable material adapted to project through the shield when the latter collapses under pressure against the ear.

3. A cushioning pad for the shells of telephone receivers and other instruments applicable to the ear, comprising a disc-like flexible shield yieldingly attached to face of the shell and a sound-conducting tube of yieldable material adapted to project through the shield when the latter collapses under pressure against the ear, the said tube having a flange fixedly attached to the face of the shell.

4. A cushioning pad for the shells of telephone receivers and other instruments applicable to the ear, comprising a disc-like flexible shield yieldingly attached to the face of the shell and a sound-conducting tube of yieldable material adapted to project through the shield when the latter collapses under pressure against the ear, the said tube having a flange fixedly attached to the face of the shell, said flange being attached to the marginal portion of the shield.

In testimony whereof I have signed my name to this specification.

VIRGIL C. CRITES.