T. W. MILLER.

EAR CUSHION.

APPLICATION FILED AUG. 17, 1917.

1,254,629. Patented Jan. 22, 1918.

Fig. 1.

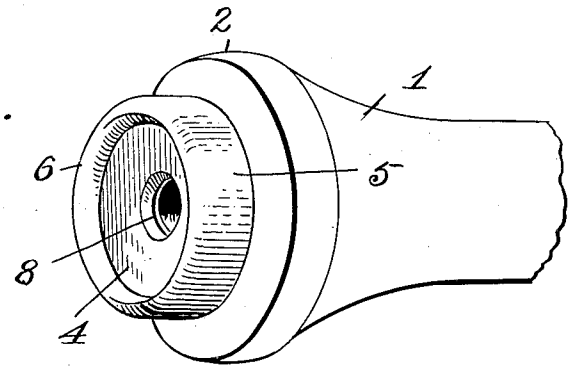


Fig. 2.

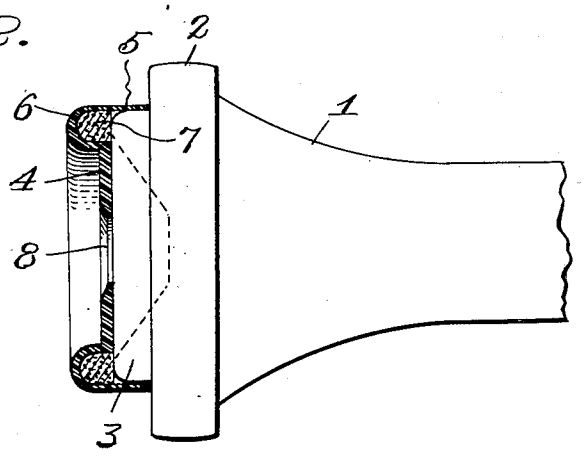
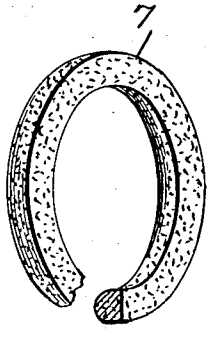


Fig. 3.



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UNITED STATES PATENT OFFICE.

THOMAS W. MILLER, OF ASHLAND, OHIO, ASSIGNOR TO THE FAULTLESS RUBBER COMPANY, OF ASHLAND, OHIO, A CORPORATION OF OHIO.

EAR-CUSHION.

1,254,629. Specification of Letters Patent. Patented Jan. 22, 1918.

Application filed August 17, 1917. Serial No. 186,697.

To all whom it may concern:

Be it known that I, THOMAS W. MILLER, a citizen of the United States, residing at Ashland, county of Ashland, State of Ohio, have invented certain new and useful Improvements in Ear-Cushions, of which the following is a specification.

My invention relates to cushioning devices for the ear-pieces of telephone receivers and similar devices, and has for its objects to provide a structure which will insure its close and accurate application to the ear of the user, and one which will be yielding and without harmful effect, whereby the acoustic or auditory properties of the devices to which it may be applied will be improved, and whereby the durability of the same will be of maximum efficiency.

These objects I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a perspective view of the end of a telephone receiver having my improved device applied thereto.

Fig. 2 is a side elevation of the end of said receiver, my improved device being shown thereon in section.

Fig. 3 is a detail perspective view, partly broken away, of the resilient ring of my improved device.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawing the reference numeral 1 denotes the end of a telephone receiver having the usual flange 2 and projecting ear-piece 3, which in the normal use of the device is applied directly to the ear of the user. My improved device comprises a flexible cup 4, preferably formed of rubber, the flange 5 of which is adapted to engage over the ear-piece 3 of the receiver 1, as best seen in Fig. 2. The said cup 4 is bulged annularly at 6 to provide an interior annular pocket, in which is seated a ring 7 of resilient material, preferably sponge rubber, said ring being rounded at its outer surface to conform to the interior of the bulge 6, and being flattened on its inner surface to register with the inner face of the cup 4, as shown. Said cup 4 is apertured centrally at 8 in register with the diaphragm of the receiver 1.

In use the cup 4 is applied to the ear-piece 3 of the receiver 1, as shown in Fig. 2, and the ring 7 rests in contact with the annular edge of the ear-piece 3, so that when the receiver is applied to the ear of the user the bulge 6 of the cup 4 will contact with the ear and head, and the underlying resilient ring will receive the pressure yieldingly, whereby a close and accurate contact may be had between said cup 4 and the head and ear of the user without danger of injury.

I am aware that heretofore ear-pieces have been employed embodying a pneumatic cushion, but it will be understood that my improved construction accomplishes all the advantages of the pneumatic structure and is at the same time very much more durable, being practically incapable of getting out of order. In fact, if the resilient ring 7 should lose its elasticity for any reason, it is obvious that the same may be removed and replaced by a fresh ring without the slightest difficulty. However, I contemplate, if desired, cementing the ring 7 in position within the bulge 6, though it is equally as effective if loosely disposed therein.

My improved device not only prevents injury to the ear and head of the user, but also most effectually excludes extraneous noises when in use, and is of extreme durability, in which respect it differs from the more easily damaged pneumatic ear-pieces heretofore used.

While I have shown and described my device as applied to the receiver of a telephone transmitter, it will be understood that its use is not confined to such devices, as it is equally well adapted for use in connection with such articles as earphones, wireless ear clamps, dictation ear clamps, and in fact any form of device which is intended to be applied to the ear of the user for transmitting sound.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. An ear cushion for telephone receivers and the like, comprising a cup, and a resilient ring disposed within said cup, and adapted, when said cup is placed in operative position on a receiver or other article, to contact with the surface of said article, said cup lying between said ring and the ear of the user.

2. A structure as specified in claim 1, in which the resilient ring is formed of sponge rubber.

3. A structure as specified in claim 1, in which the cup is formed of elastic material.

4. A structure as specified in claim 2, in which the cup is formed of elastic material.

5. A structure as specified in claim 1, in which the cup is formed with an annular bulge to receive the ring.

6. A structure as specified in claim 5, in which the cup is flanged to engage over the ear-piece of the receiver or other article.

In testimony whereof, I hereunto set my hand this 13th day of August, 1917.

THOMAS W. MILLER.