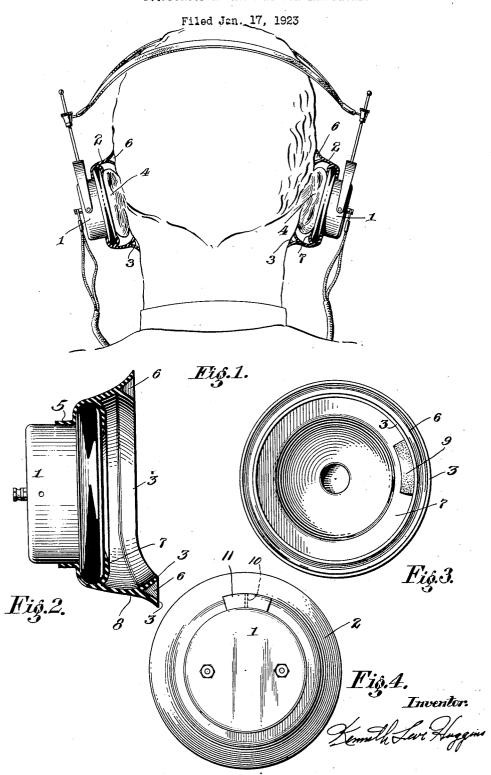
K. L. HUGGINS

SOUNDPROOF ATTACHMENT FOR EAR PHONES



## UNITED STATES PATENT OFFICE.

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SOUNDPROOF ATTACHMENT FOR EAR PHONES.

Application filed January 17, 1923. Serial No. 613,305.

To all whom it may concern:

GINS, a citizen of the United States, residing at South Hartford, in the county of Washington and State of New York, have invented a new and useful Soundproof Attachment for Ear Phones, of which the following is a specification.

This invention relates to an improvement 10 in sound proof attachments for ear phones of all types which are made wholly or partially of rubberized material, especially ra-

dio ear phones.

My object of this invention is to provide 15 a satisfactory attachment to be placed on ear phones to keep out as far as possible all external noises which hinder and actually spoil the enjoyment of listening in on a radio and a very great help for the tele-phone operator and the aviator travelling under the thunderous roar of an engine trying to listen to directions or orders being sent him from a station on land.

Also it is an invention which takes up 25 but a very little space and can be manufac-

tured at a reasonable cost.

It can be taken off the phones without

injuring them.

A further object of this invention is to provide an attachment of soft sponge like rubber which fits close to the head and takes some of the pressure of the ear phone off from the ear. It is of such a form that it will fit perfectly the contour of the head.

It is an invention with a small air vacuum space where it comes in contact with

the head.

Other objects and reasons for this inven-

tion will be given later.

The drawing in Fig. I is a set of ear phones on the head. As ear phones press tightly to the head I have held these out a small distance so as to show clearly the cross sectioned view of this invention which 45 clamps over the cap on the ear phone and presses against the head away from the ear and entirely enveloping the ear.

Fig. II is a side view cross sectioned showing how invention extends further 50 out at the bottom of ear phone so as to fit in next to jaw bone under the ear.

Fig. III is a view looking directly into ear phone with invention on it.

Fig. IV is a back view of phone with in-Be it known that I, Kenneth Levi Hug- vention on it showing partly how it is fas- 55

tened on it.

Number 1 in each of these drawings is an ear phone. Number 2 is the attachment of soft sponge like rubber where it comes in contact with the head or ear but made of 60 hard and strong rubber in the other parts so as to hold it well in shape. Where the invention clamps over the cap on the ear phone it is made of soft flexible rubber so as it will stretch some when it is put on the 65

Different views of this invention can be had by looking at all the figures. Number 3 in the several drawings are the two sheets or bands of soft rubber forming a 70 V as the invention approaches the head. These are fairly stiff so as to take some of pressure of phone off head. The space 6 is intended as a dead air space through which it is hard for sound to penetrate and 75 may be at less than atmospheric pressure

in use.

The ear 4 is kept from being pressed tightly to the head by the stiff rubber parts of the attachment 2. Small squares of rub- 80 ber 5 are fastened to the back flange of 2 and can be cemented on to the ear phone if necessary to hold the attachment firmly in place. But these can be left off. A strip 7 extends over the front of phone cap 85 about one half inch. This is as thin as possibly can be made and still give good service. This strip 7 is made of solid rubber and is adapted to convey the pressure of the head band through the main part 90 of the attachment to the head instead of upon the ear. A narrow strip of soft velvet 9 can be placed on the front of the strip 7 to take the wear off of the rubber and to make the ear phone set softly or 95 head. An extension 8 on the lower part of the attachment is adapted to fit snugly under the jaw bone. The flange adapted to secure the back part of the receiver cap can be divided at one or more places 10 to make 100 easy the attachment of the receiver and a band 11 of rubber can be cemented over the divided parts. The general shape of the attachment may be oval or round as desired.

This invention can be used on any make 105 of ear phones which have rubber caps on

will simply be made to fit them.

What I claim is:
An attachment for a telephone receiver omprising a circular band of rubber, one edge of which is adapted to fit the telephone receiver to secure the band to the receiver; the other edge of the band adapted to enclose the ear and fit the head of the user, 20 said last named edge containing a groove

them. Phones vary in size so the invention whereby a circular air pocket is provided at

its line of contact with user's head.

In witness whereof, I hereunto subscribe my name this 13th day of January, A. D. 1923.

## KENNETH LEVI HUGGINS.

Witnesses:

WILLIAM W. NORTON, JULIA I. H. NORTON.