

J. L. CREVELING.
 APPLIANCE FOR TELEPHONES.
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1,145,751.

Patented July 6, 1915.
 2 SHEETS—SHEET 1.

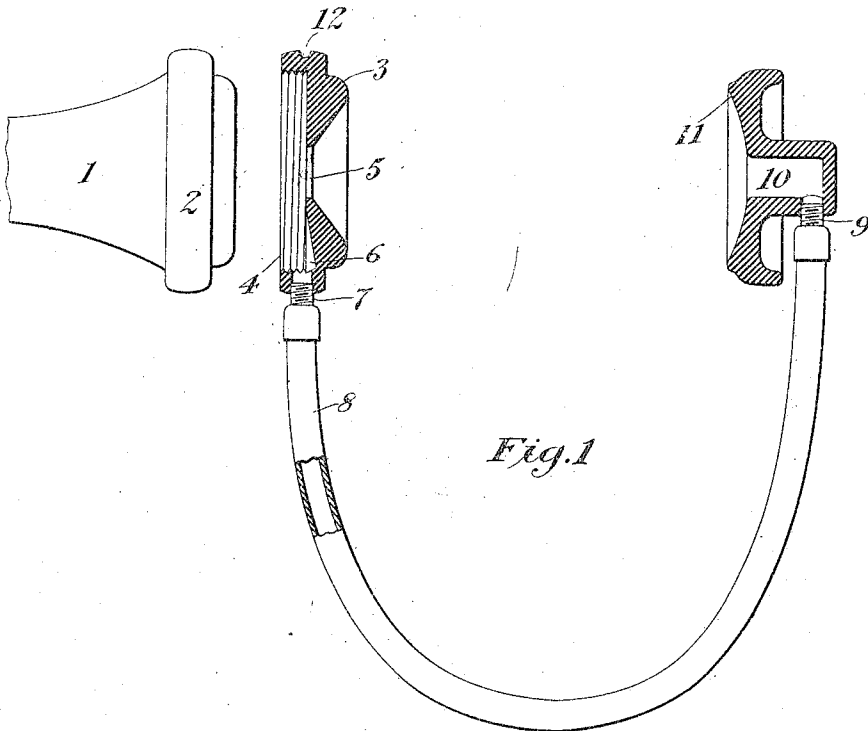


Fig. 1

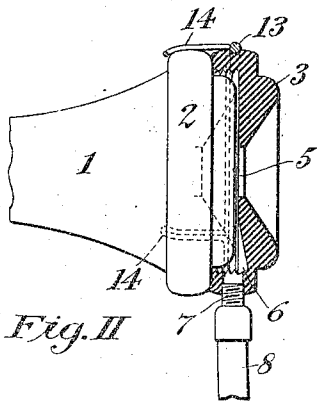


Fig. II

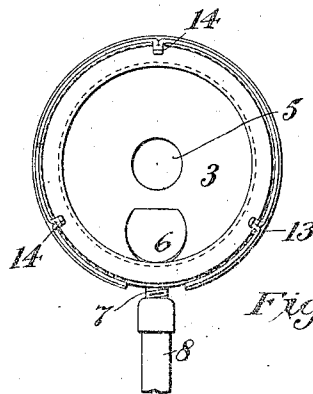


Fig. III

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2 SHEETS—SHEET 2.

Fig. IV.

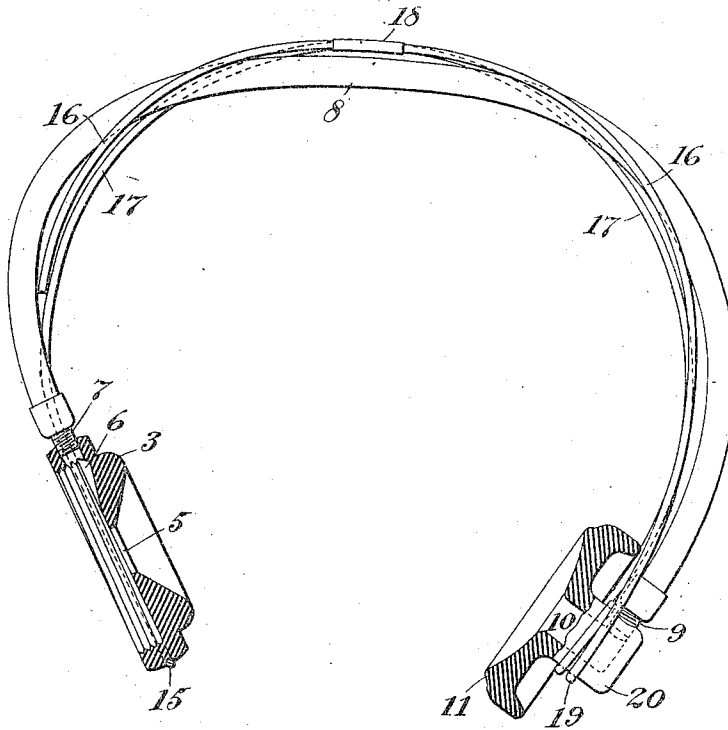
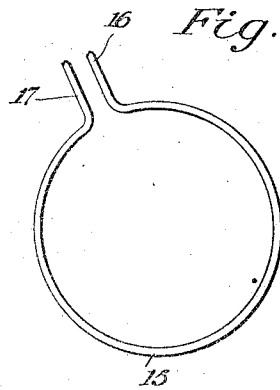


Fig. V.



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UNITED STATES PATENT OFFICE.

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APPLIANCE FOR TELEPHONES.

1,145,751.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN L. CREVELING, a citizen of the United States, residing in the city, county, and State of New York, have invented a certain new and useful Improvement in Appliances for Telephones, of which the following is a specification, reference being had to the drawing, forming a part thereof.

My invention pertains to that class of appliances for telephones intended to be used in connection with the receiver of an ordinary telephone instrument and render the impulses emitted thereby more readily audible.

My invention has for its particular object to cause the vibrations set up in the receiver to be transmitted to both ears of an operator instead of one only as usual, and to lessen the annoyance caused to an operator by extraneous sounds which usually disturb an operator using the ordinary single receiver, which leaves one ear open to the effect of such sounds.

It is a further object of my invention to provide a simple and inexpensive device which may accomplish the above purposes and be readily applied to telephones now in use without defacing the same and which may be readily held in operative position upon the operator, if desired, without the use of the hands.

Figure I. is an elevation shown partly in section of a portion of my improved appliance in one form in which it may be used. Fig. II. is a sectional elevation of a portion of my improved appliance attached to a telephone receiver in one manner in which it may be applied thereto. Fig. III. shows an end elevation of the portion of my appliance shown in section in Fig. II., the same being as viewed from the left of Fig. II. Fig. IV. is an elevation shown partially in section of my improved appliance provided with means for holding the same in operative position upon the head of the user. Fig. V. shows a portion of the head spring or holding device which portion is broken away in Fig. IV. for the sake of clearness in illustration.

In Fig. I. (1) represents a portion of the ordinary telephone receiver provided with a cap or ear piece (2). (3) represents one ear piece of my improved appliance which may resemble the ear piece (2) and be provided with a threaded portion (4) or other

equivalent means whereby said ear piece (3) may be substituted for the ear piece (2) upon the ordinary receiver (1) in such manner that the vibrations set up by the diaphragm of the receiver (1) will be audible through the aperture (5). (6) represents a sound cavity in the ear piece (3) with which communicates the nipple (7) of the sound tube (8) which, at its other extremity is provided with the nipple (9) communicating with the cavity (10) of the ear piece (11). The ear piece (3) is provided with a circumferential groove (12), the functions of which will hereinafter more plainly appear.

In Fig. II. the ear piece (3) is shown as placed in operative position upon the receiver (1) and held in such operative position by the clips or fingers (14) carried by the spring ring (13) which is sprung into the groove (12).

Fig. III. more plainly shows a preferred shape of the sound cavity (6) and the spring ring (13) together with its clips or fingers (14).

In Fig. IV. the ear pieces (3) and (11) are shown as operatively connected by the sound tube (8) as in Fig. I. and united by a head spring or holding device composed of the wires (16) and (17) united by the clip (18) and formed at one end into the shape of a spring ring (15) adapted to engage a circumferential groove (12) of the ear piece (3), and formed into a spiral (19) at the other end in such manner as to firmly engage the lug (20) of the ear piece (11).

Fig. V. shows more plainly the spring ring portion which is shown partially in section of Fig. IV.

The operation of my improved device is as follows: If desired to attach my device permanently to the telephone receiver, the cap (2) may be removed and the ear piece (3) screwed upon the receiver (1) in its stead. Then by placing the ear piece (3) to one ear and the ear piece (11) to the other, the sound emitted by the receiver will be audible to each ear of the operator and the ear piece (11) will serve to eliminate the disturbance usually caused by outside noises. If desired to use my appliance without in any way altering the telephone receiver the said receiver may be placed against the ear piece (3) which may be held in place between the receiver and the ear of the operator in the position shown in Fig.

II., and the ear piece (11) may be placed against the other ear in the manner above described.

If desired to automatically hold the ear piece (3) in such operative position upon the receiver and in such manner that it may be readily detached or applied as desired, this may be readily accomplished by the construction shown in Figs. II. and III. in which the spring ring (13) carrying the fingers (14) is shown as sprung into the groove (12) in such manner as to firmly grip the ear piece (3). The ear piece (3) may then be pressed against the ear piece (2) in such manner that the clips or fingers (14) will spring over the edge of the ear piece (2) in such manner as to hold the ear piece (3) in operative relation thereto.

If desired to hold the ear pieces upon the operator in such manner as to leave the hands free, the head spring as shown in Figs. IV. and V. may be employed by simply detaching the nipple (9) from the ear piece (11) then separating the wires (16) and (17) in such manner as to open up the spiral spring (19) into which may then be readily pressed the boss (20), and then relieving the wires (16) and (17) will allow the spiral (19) to close up and firmly grip the boss (20). Then the nipple (9) may be again screwed into the ear piece (11) and the ear piece (3) sprung into the ring (15) in such manner that the said ring will firmly engage the groove (12) and hold the ear piece in the position shown in the drawing. Thus arranged the ear pieces may be separated and placed upon the ears of an operator and the ordinary telephone receiver when placed in operative relation to the ear piece (3) will have its sound waves carried to both ears of the operator.

It will be noted that with this arrangement the receiver of the telephone is in no way attached to my appliance which is carried entirely upon the operator, and that the operator is free to move away from the telephone without the annoyance of having to remove any portion of my apparatus unless desired.

I do not wish in any way to limit myself

to any particular constructions shown in the drawing which is merely an illustration of some forms of devices embodying my invention and from which great variation may be made and still be within the scope of said invention.

Having thus described my invention, what I desire to protect by Letters Patent is as set forth in the following claims, to wit:—

1. The combination with the ear piece of a telephone receiver, of a second ear piece adapted to operatively engage the ear piece of said receiver, said second ear piece being provided with a circumferential groove, and means lying in said groove having resilient fingers engaging the ear piece of the telephone receiver for holding the ear pieces in operative relation.

2. The combination with an ear piece for telephone service provided with a circumferential groove, of a resilient band for engaging said groove to hold said ear piece in operative position upon a telephone receiver, said band having spring fingers extending therefrom at a right-angle thereto, in the same general direction and converging toward each other.

3. The combination with the ear piece of a telephone receiver, of a second ear piece adapted to operatively engage the ear piece of said receiver, said second ear piece being provided with a circumferential groove and means lying in said groove having fingers engaging the ear piece of the telephone receiver for holding the ear pieces in operative relation.

4. The combination with an ear piece for telephone service provided with a circumferential groove, of a resilient band for engaging said groove, said band having fingers to hold said ear piece in operative position upon a telephone receiver, extending therefrom at a right angle thereto, in the same general direction and converging toward each other.

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