Oct. 30, 1923. 1,472,214

J. W. GONCE

DENTIPHONE

Filed Aug. 16, 1921

Fig. 1.

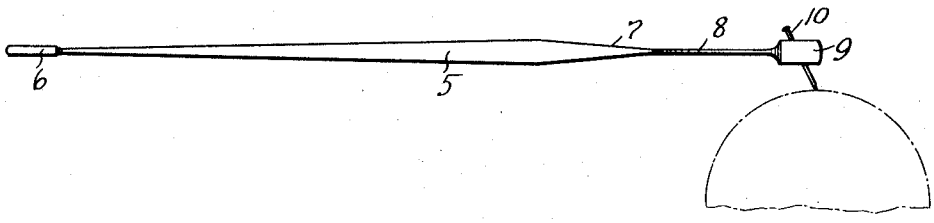


Fig. 2.

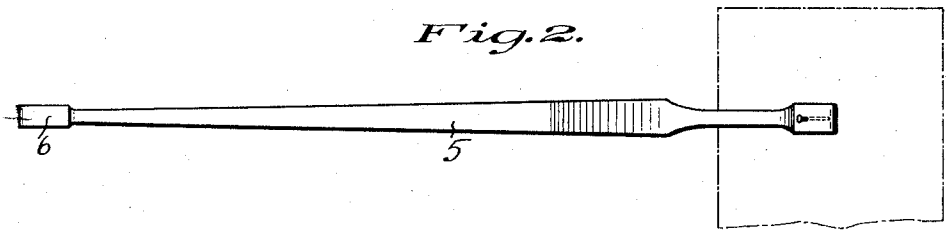


Fig. 3.

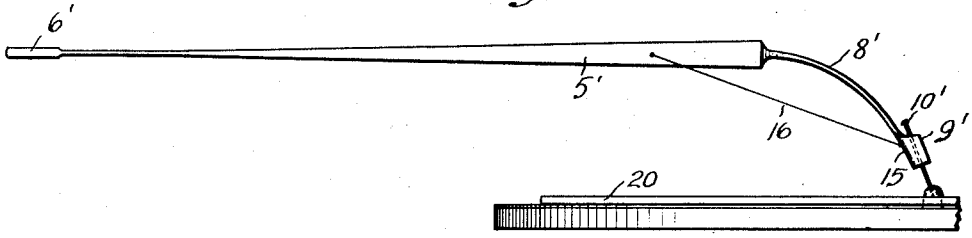
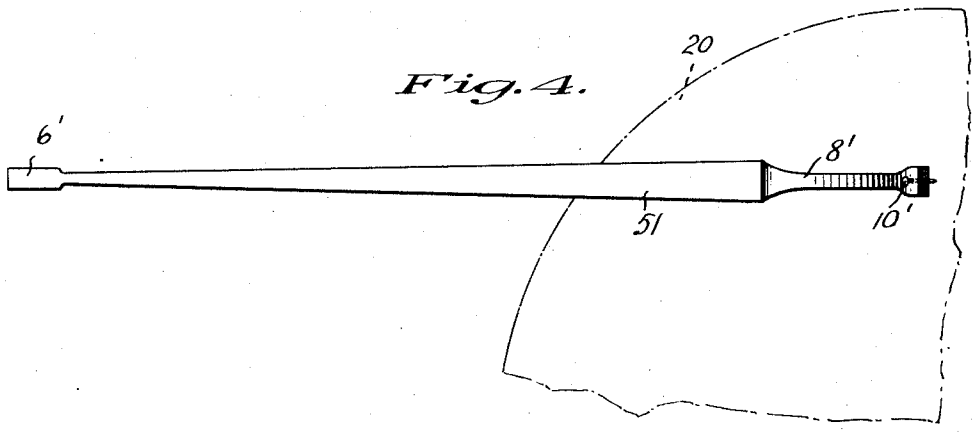


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN WISDOM GONCE, OF ANDERSON, TENNESSEE.

DENTIPHONE.

Application filed August 16, 1921. Serial No. 492,776.

To all whom it may concern:

Be it known that I, JOHN WISDOM GONCE, a citizen of the United States, and a resident of Anderson, in the county of Franklin and State of Tennessee, have invented a new and Improved Dentiphone, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in acoustic devices, and it pertains more particularly to a device especially adapted for use by persons with defective hearing in order that they may more clearly hear conversation or music which has been previously recorded on a suitable recording device such as a talking machine record.

It is one of the primary objects of the present invention to provide means adapted to be held between the teeth of a person whose hearing is defective, one end of the device being adapted to contact with a talking machine record in order that the vibrations set up thereby may be transferred to the teeth and bones of the head to promote hearing.

It is a further object of the invention to provide a device of this character which is capable of use in connection with talking machine records of various types.

With the above and other objects in view, reference is had to the accompanying drawings, in which—

Figure 1 is a view in elevation of one form of the invention;

Fig. 2 is a top plan view thereof;

Fig. 3 is a view in elevation of a modified form of the invention;

Fig. 4 is a top plan view of the form shown in Fig. 3.

Referring more particularly to the drawings, the device comprises a main body portion 5, and one end of said body portion is tapered into a thin web portion and provided with an enlarged portion 6 forming a head adapted to be held between the teeth of the user. The opposite end of the body portion 5 is more sharply tapered as indicated by the reference character 7 and terminates in a thin web portion 8, upon the end of which is provided an enlarged head 9. This enlarged head 9 is formed with a suitable passage for retaining a stylus or needle 10, as shown in Fig. 2.

In use, the head portion 6 of the body portion 5 is adapted to be placed between the teeth of the user with the upper set of teeth projecting slightly forwardly with respect to the lower set of teeth in order that a desired amount of tension may be applied to the device.

This form of the invention is particularly adapted for use with records of the cylindrical type in which the sound groove is of the hill-and-dale form, but may be used also on records of the disk type.

After the operator has grasped the head 6 between his teeth, the stylus 10 is placed in the sound groove of the record and as the record rotates the vibrations set up in the stylus will be transmitted through the body portion 5 through the teeth of the user, and will thus transmit all of the tones and sounds to the user in a clearly understandable manner.

In the form of the invention shown in Figs. 3 and 4, the thin web portion 8′ is of greater length than the smaller portion 8 in the form shown in Figs. 1 and 2. The form shown in Figs. 3 and 4 is particularly adapted for use in connection with records of the disk type, and connected to the head portion 9′, as at 15, is a flexible device, such as a string or wire 16. The other end of the string or wire is connected to the body portion 5′ of the device.

By this construction the web portion 8′ is maintained in a curved position as shown in order that the stylus 10′ may travel upon the flat record 20. This form of the invention is used in a similar manner to that shown in Figs. 1 and 2, i. e., the mouthpiece 6′ being placed between the teeth of the user and the stylus 10′ engaged with the sound groove of the record.

The device is constructed from any suitable resonant material, such as steel, hard rubber, or any one of various varieties of wood, or combination of these materials.

While it is desirable to use a stylus or needle of metal, favorable results have been obtained when these styli were made of other material, such, for example, as hard wood.

From the foregoing it is apparent that the present invention provides a device which will permit persons with defective hearing enjoying the pleasures afforded by the use of phonographs and the like.

It is furthermore apparent that when the stylus of a device constructed in accordance with the present invention is caused to fol-

low the stylus of a recording instrument at the time of making a record, a transcribing of the record may be had almost simultaneously with its making, and such a contrivance is especially adaptable for use by persons whose hearing is defective, in lecture halls and similar places in order that they may be able to follow the speaker and have knowledge of his remarks.

I do not wish to confine myself to the form or cross section of my instrument as here shown, except that there should be a head for holding the stylus at one end, a suitable mouth-piece preferably of wood at the other end, and a thin flexible portion near each end. I find that the thin portion next to head of stylus helps it follow the groove of the record, while the thin portion next to the mouth-piece prevents the vibrations from jarring the teeth. Between these thin portions the instrument may possess any suitable form or cross section.

I claim:

1. A device of the character described comprising a relatively thick main body portion, the ends of which are tapered in opposite directions to provide relatively thin end portions, an enlarged head formed on each of the end portions, one of said heads adapted to carry a stylus, substantially as described.

2. A device of the character described comprising a main body portion having tapered ends, a stylus-carrying head formed on one of said ends, and means for flexing the end provided with the stylus-carrying head for positioning the stylus-carrying head angularly with respect to the main body portion.

3. A device of the character described comprising a resilient body portion of varying cross section, and means on one end of the body portion for carrying a stylus.

JOHN WISDOM GONCE.