Feb. 17, 1953 G. A. LA FITTE 2,629,023

SOUND REPRODUCER ATTACHMENT FOR HEADRESTS

Filed Dec. 9, 1949 2 SHEETS—SHEET 1

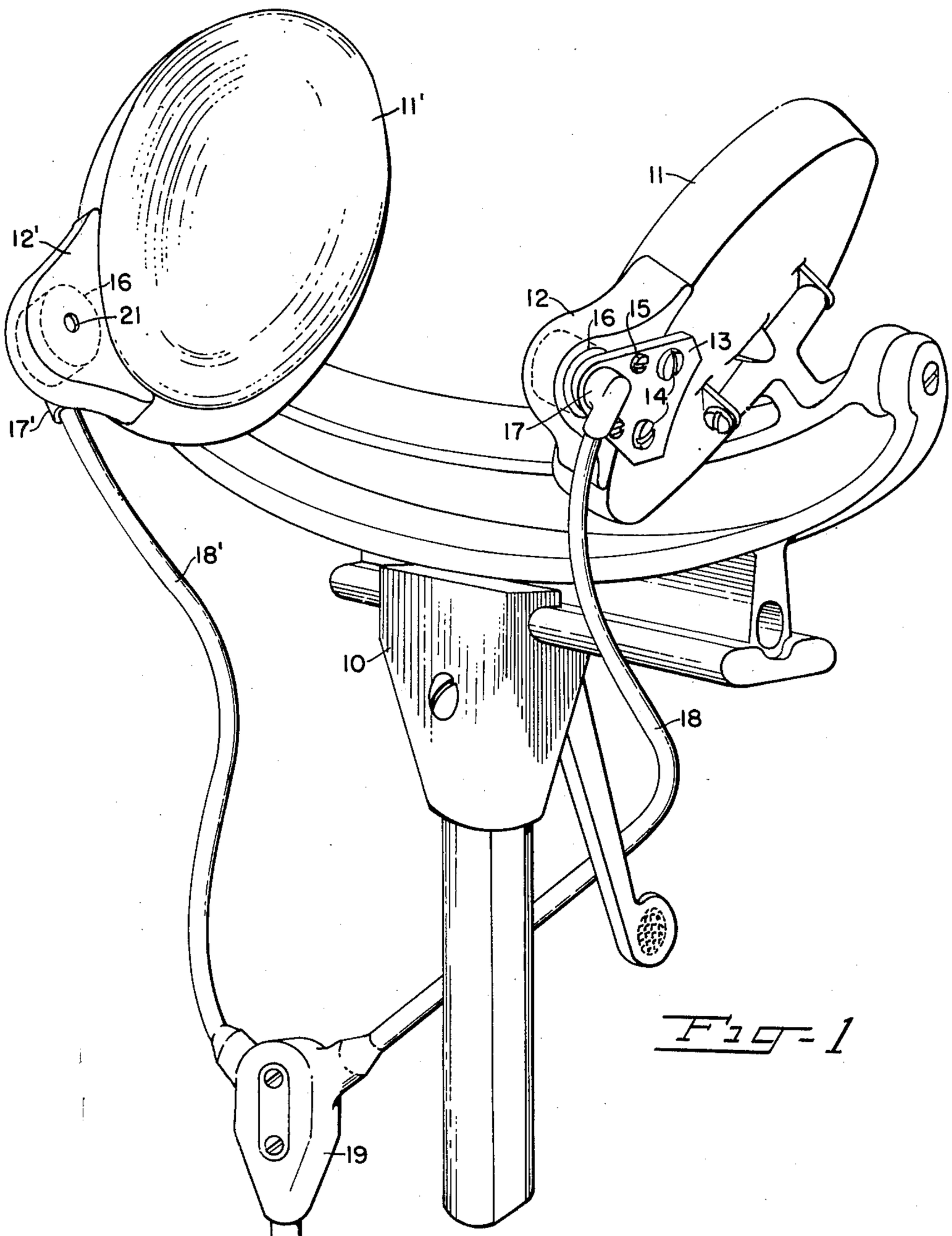

Fig-1

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SOUND REPRODUCER ATTACHMENT FOR HEADRESTS

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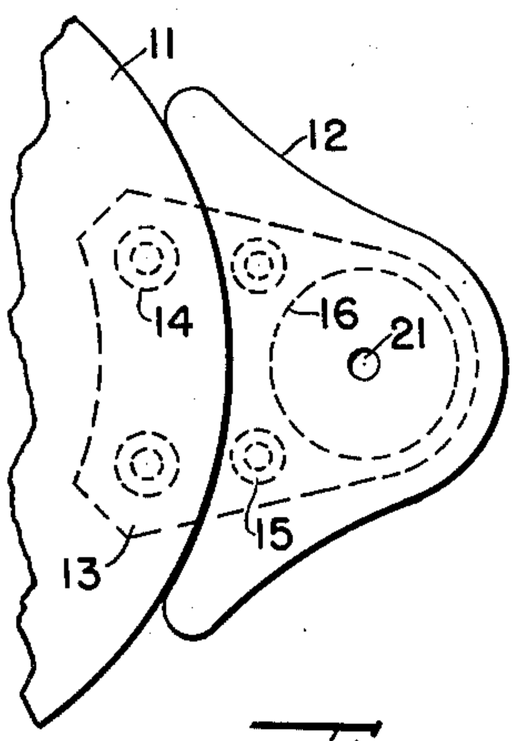

Fig- 2

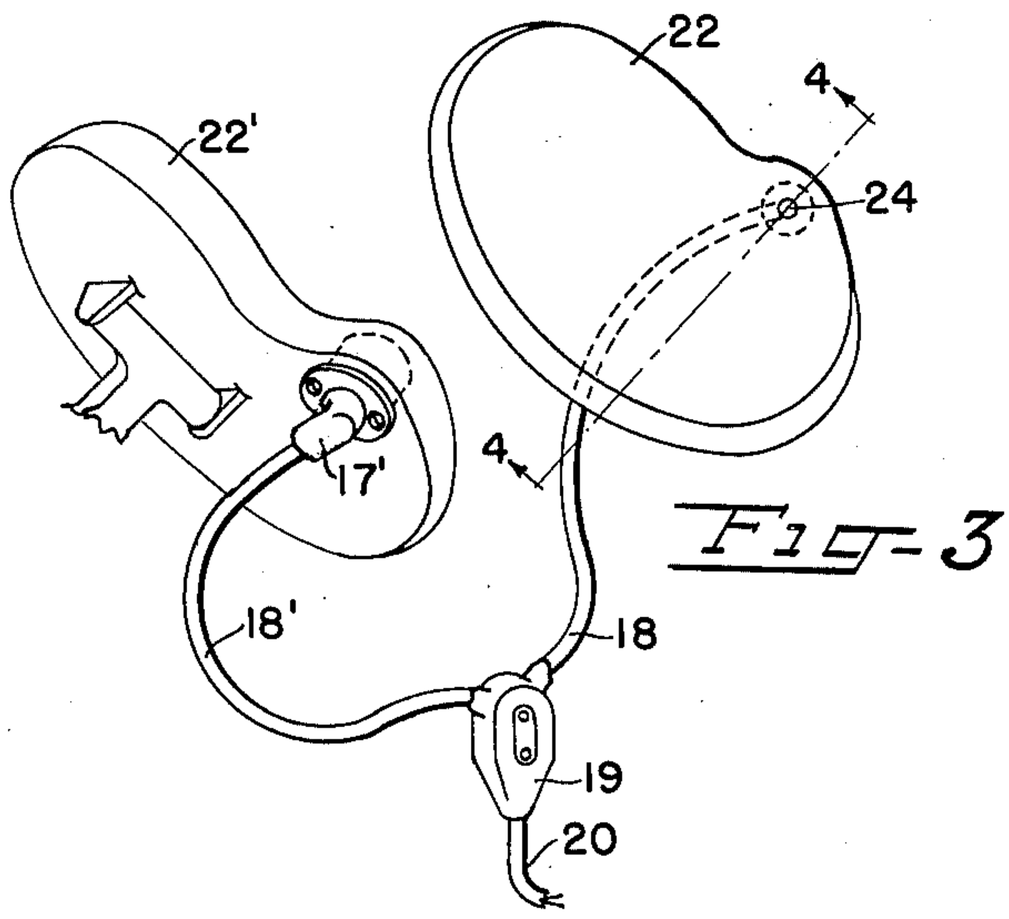

Fig- 3

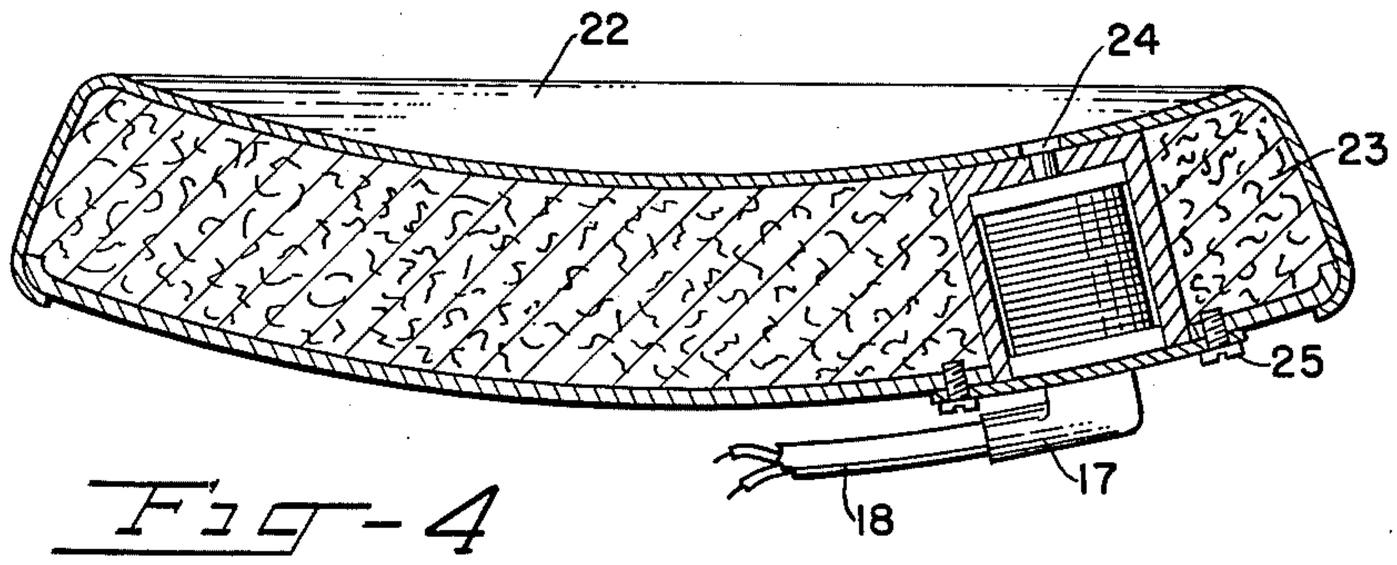

Fig- 4

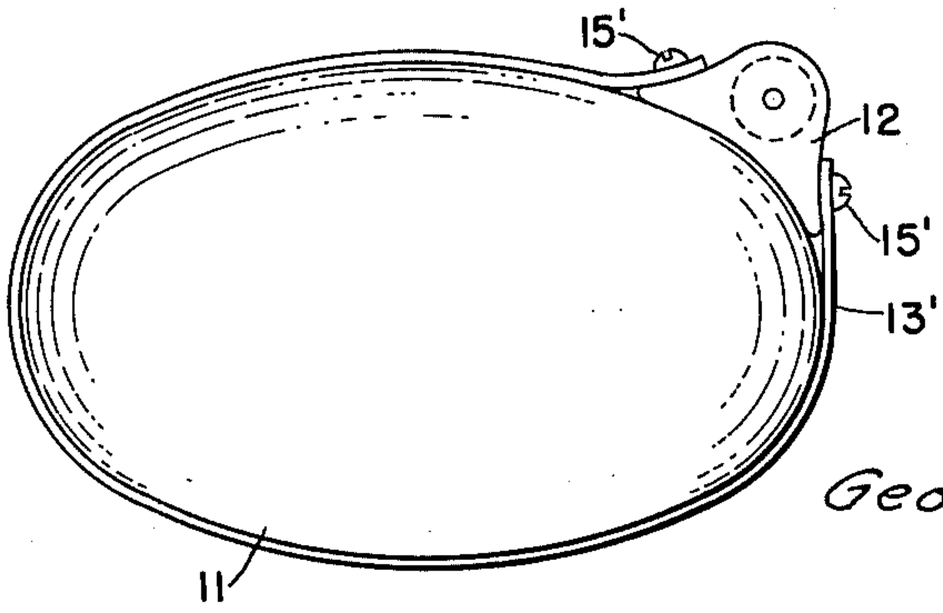

Fig- 5

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SOUND REPRODUCER ATTACHMENT FOR HEADRESTS

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4 Claims. (Cl. 179—146)

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This invention relates to a musical headrest or combination headrest and sound receiver, and more particularly to a headrest such as is ordinarily used on dental chairs and a sound receiver combined therewith so as to be positioned adjacent or in proximity to the mastoid bone of a patient sitting in the dental chair.

It is well known that music has a soothing influence upon the nerves and tends to lessen the sensation of pain for a patient undergoing dental treatment. Previously, dentists and others have resorted to a radio receiver for broadcasting music and other programs for the pleasure of their patients and for the purpose of distracting the patient's attention from the actual operative work being performed. In this manner, the patient's mind is taken off of his ills and his attention is called to more pleasant things, thereby relaxing the nerves and actually lessening the conscious sensation of pain for the patient.

I have found that a program which may be pleasing to one patient may not be at all pleasing to another patient in an adjoining room or even to the dentist himself; and, furthermore, that music filling the room generally, together with other noises in the room, is not nearly as soothing to the patient as is the quiet sensation of audible sounds transmitted to the patient alone from a small earphone or electrical receiver placed adjacent to or in the immediate vicinity of the mastoid bone of the patient.

It is a primary function of the headrest not merely to hold the head but to hold it in a restful position so as to relieve muscular and nervous tension, and it will therefore be seen that the sound receiver in my musical headrest aids in the fulfillment of this primary purpose of achieving more or less complete relaxation for the patient.

It is an object of my invention to provide a headrest with means for positioning a sound receiver adjacent to or in the vicinity of the mastoid bone of a patient whose head rests against the headrest assembly.

Another object of my invention is to provide a headrest with means for transmitting audible sound to the mastoid bone of the patient in a dental chair.

Another object of my invention is to provide apparatus which can be quickly and easily installed upon dental chairs and the like now in use.

Another object of my invention is to provide a headrest having a sound receiver or earphone embedded therein.

Another object of my invention is to provide a

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headrest having an extension or attachment carrying a sound receiver.

Another object of my invention is to provide apparatus which is easily installed, inexpensive to manufacture, durable in construction, and efficient in operation.

Other and further objects and advantages of my invention will be apparent from the following description taken in connection with the accompanying drawings in which like characters of reference designate corresponding parts throughout the several views, and wherein:

Fig. 1 is a perspective view of a headrest embodying my invention.

Fig. 2 is a plan view showing a detail.

Fig. 3 is a perspective view of a modified form.

Fig. 4 is a cross-sectional view taken along the line 4—4 in Fig. 3.

Fig. 5 is a plan view showing a modified form.

In the embodiment shown in Fig. 1, an adjustable headrest assembly of ordinary construction is indicated generally at 10 and is provided with the customary pair of padded headrests 11, 11' to which the extensions or attachments 12, 12' are secured, respectively. For this purpose, a connecting plate 13 is fastened to the back of the headrest by screws 14, and fastened to the back of the attachment by screws 15. Alternatively, as shown in Fig. 5, a band 13' may be looped around the headrest and fastened to the attachment by screws 15'. The attachments may be made of plastic, wood, metal or other suitable material. Each attachment is provided with a bore or recess 16 for the reception of a receiver or earphone of known construction, the outer end of which is shown at 17, 17'. The receivers 17, 17' are connected, respectively, by flexible conductors 18, 18' to a switch box 19 and thence by flexible conductor 20 to a radio receiver (not shown) of ordinary construction. The attachments 12, 12' are positioned on the lower front portion of the periphery of the headrests 11, 11', respectively, so that when the head of the patient rests against the headrests 11, 11', the attachments 12, 12' which form extensions of the headrests 11, 11', respectively, and continuations of the padded surfaces thereof, are arranged to press the receivers substantially against or in immediate proximity to the mastoid bones of the patient. Each of the attachments is provided with a small opening 21 beneath which one of the electrical receivers or earphones is positioned so that electrical impulses of audio frequency transmitted to the earphones fom the radio receiver, or other sources of audio frequency impulses, will be

caused to pass from the earphone through the opening **21** so as to impinge substantially upon the mastoid bone of the patient, and vibrations in the electrical receivers are transmitted through the attachment to the mastoid bone. By this construction, sound waves of very low intensity will be audible to the patient against whose mastoid bones the attachments are pressed, while at the same time the sound waves emitted by the receivers may be of such low intensity as to be substantially inaudible to other persons even though they may be fairly close to the patient.

In the embodiment shown in Fig. 3, a pair of padded headrests **22**, **22'** have the padding **23** arranged around the receivers **17**, **17'** which have been inserted into the interior of the padded headrests **22**, **22'**, respectively, as shown in Fig. 4. In this modification, the front covering of the headrest, which is customarily made of leather, imitation leather, fabric or other suitable material, is provided with a small opening **24** which corresponds to the opening **21** and through which sound waves from the receiver imbedded in the headrest emerge to impinge substantially upon the mastoid bone of the patient. In this modification, the earphones, or receivers, are held in place inside the padded headrest by being fastened to the back thereof, as by screws **25**, and the receivers are pressed firmly against the patient's head so that vibrations in the electrical receivers are transmitted to the mastoid bone. Even patients whose normal hearing has been impaired can sometimes be soothed by this means.

It will be obvious to those skilled in the art that I have provided a device of great usefulness and that many modifications and changes may be made in the embodiments shown and described without departing from the scope of my invention as defined in the appended claims.

I claim:

1. An attachment for a headrest for supporting a human head comprising a body provided with an inner recess, an electrical sound reproducer positioned within said recess, and means for attaching said body to the lower front portion of the outer periphery of said headrest to form an external abutment thereon so that said sound reproducer is automatically positioned in proximity to and pressed substantially against the mastoid bone in a human head supported naturally upon said headrest.

2. An attachment for a headrest for supporting

a human head comprising a body provided with an inner recess, an electrical sound reproducer positioned within said recess, and means for attaching said body to the lower front portion of the outer periphery of said headrest to form an external abutment thereon so that said sound reproducer is automatically positioned in proximity to and pressed substantially against the mastoid bone in a human head supported naturally upon said headrest, said means for attaching comprising a band encircling said headrest and attached to said body.

3. An attachment for a headrest for supporting a human head comprising a body provided with an inner recess and an outer marginal portion conforming substantially to a portion of the periphery of said headrest, an electrical sound reproducer positioned within said recess, and means for attaching said body to the outer periphery of said headrest with said outer marginal portion abutting the lower front portion of said headrest so that said sound reproducer is automatically positioned in proximity to and pressed substantially against the mastoid bone in a human head supported naturally upon said headrest.

4. An attachment for a headrest for supporting a human head comprising a body provided with an inner recess and an outer marginal portion conforming substantially to a portion of the periphery of said headrest, an electrical sound reproducer positioned within said recess, and means for attaching said body to the lower front portion of the outer periphery of said headrest to form an external abutment thereon so that said sound reproducer is automatically positioned in proximity to and pressed substantially against the mastoid bone in a human head supported naturally upon said headrest, said means for attaching comprising a band encircling said headrest and attached to said body.

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