March 4, 1924. 1,486,049

G. B. SPRING

WIRELESS TELEGRAPH AND TELEPHONE INSTRUMENT

Filed Oct. 21, 1922

Fig. 1.

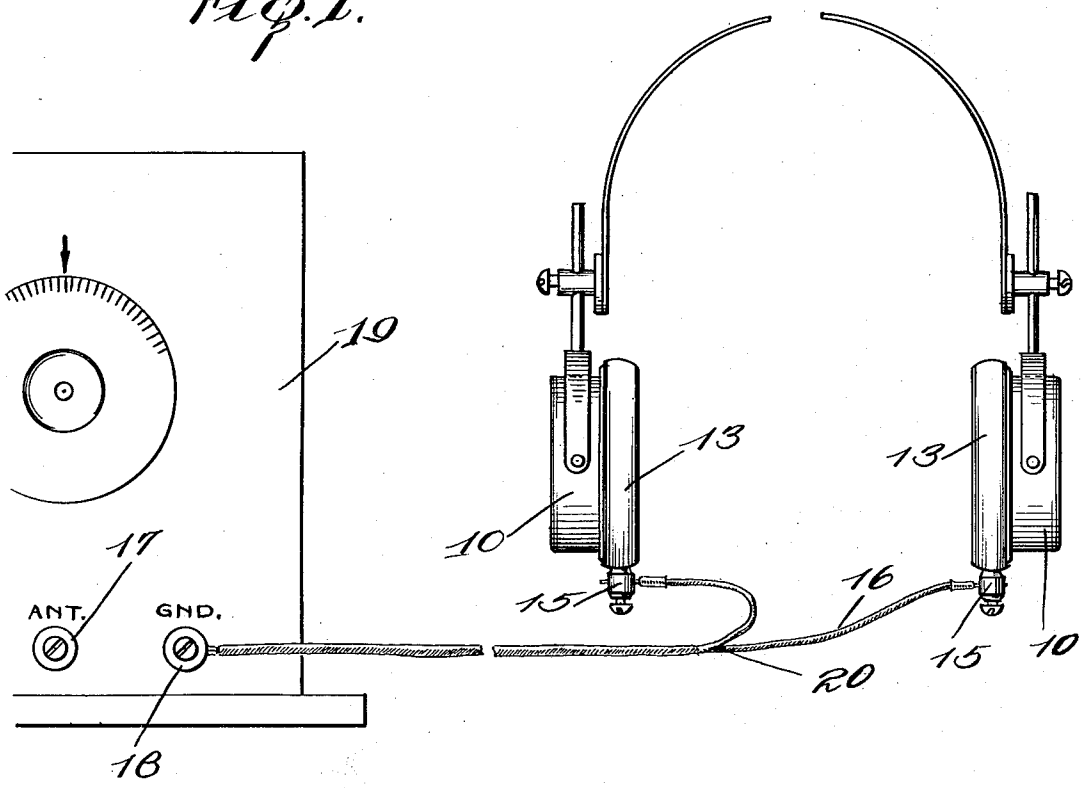
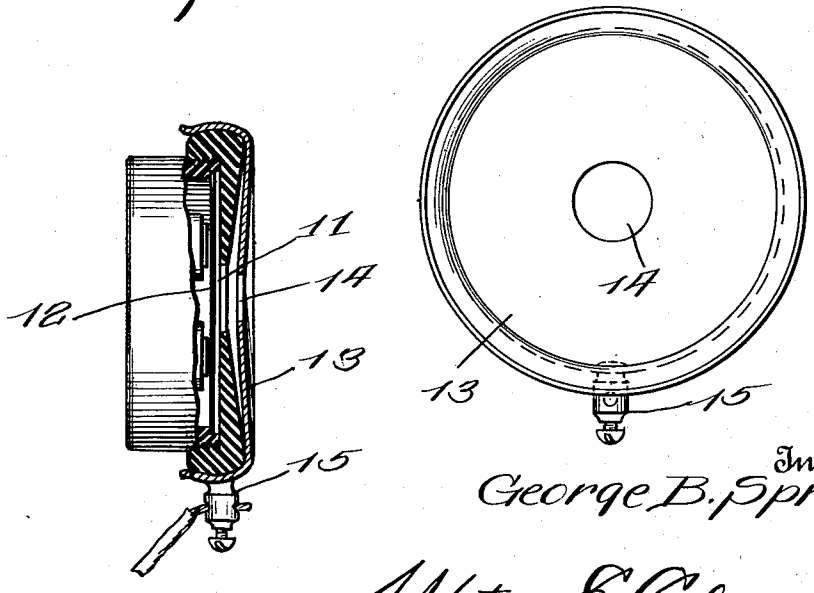


Fig. 3.

Fig. 2.



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Patented Mar. 4, 1924. 1,486,049

UNITED STATES PATENT OFFICE.

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WIRELESS TELEGRAPH AND TELEPHONE INSTRUMENT.

Application filed October 21, 1922. Serial No. 596,011.

To all whom it may concern:

Be it known that I, GEORGE B. SPRING, a citizen of the United States, residing at Milford, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Wireless Telegraph and Telephone Instruments, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in wireless telegraph and telephone instruments, and more particularly to a circuit completing device for completing the aerial or ground circuit of receiving instruments.

An important object of the invention is to provide a device for completing an aerial circuit which acts either as the aerial or ground of the circuit and which is applied to the body of the operator.

A further object of the invention is to provide a device of this character which is applied simply by placing the ear pieces of the head set in position upon the head of the operator.

A still further object of the invention is to provide a device of this character which while capable of incorporation in the construction of the head set, may be so formed as to be applicable to the receiver portions of the head sets now in use.

Another object of the invention is to provide metallic contact pieces adapted to cover the cap of the ear piece of the receiver and which by its contact with the body of the operator when the ear pieces are in position may be employed either as an aerial or ground connection for the receiving set by simply electrically connecting the same to the proper terminal of the set.

An additional object of the invention is to provide a device of this character which is simple in its construction and arrangement, may be readily applied to or incorporated in a receiver, and which will in no manner interfere with the ordinary operation of the receiver.

These and other objects I attain by the construction and arrangement shown in the accompanying drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein like reference characters designate like parts throughout.

In the drawings:—

Figure 1 is a fragmentary side elevation showing apparatus constructed in accordance with my invention applied to a receiving set as a ground therefor;

Figure 2 is a side elevation of a receiver showing the device attached thereto, parts being broken away; and

Figure 3 is a plan view of the connector detached.

Referring now more particularly to the drawings, the numeral 10 indicates the cap of a receiver which, as well known to those familiar with the art, is formed of insulating material such as hard rubber or the like. These caps are provided centrally with an opening 11 so that the sounds emanating from the diaphragm 12 may be readily transmitted to the ear of the receiver. In accordance with my invention, I provide a metallic cap 13 adapted to fit over the cap of the receiver and which conforms substantially to the shaping of the outer face thereof, this cap being provided centrally with an opening 14 aligning with the opening 11 of the receiver cap.

The cap 13 is provided with a binding post 15 by means of which a lead wire 16 may be connected to the same, the opposite end of this wire being attached either to the aerial connection 17 or the ground connection 18 of the receiving set 19 as may be desired. Where the head set employed in connection with the receiving set 19 embodies two receivers, a cap 13 is applied to each of the receivers and the wires connected therewith are joined, as at 20, for connection to the terminal 17 or 18 as the case may be. The manner of connecting or securing the cap 13 to the receiver cap 10 may take any desired form, in the present instance the cap 13 being shown as spun upon the receiver cap 10 to thereby mechanically join the same.

It will, of course, be obvious that the construction hereinbefore shown is not only capable of modification to a great extent but it will likewise be obvious that other means might be employed for connecting the areial and ground connections 17 or 18 with the body of the operator without departing from the spirit of the invention. It has been found that where this electrical connection is established, if established with the aerial terminal of the receiving set 19, no other aerial is necessary, and if established with the ground connection, no other ground connection is necessary. Many changes and

modifications being possible as above set forth, I do not limit myself to the specific arrangement or structure disclosed except as hereinafter claimed.

I claim:—

1. An aerial for wireless receiving sets embodying a receiving head set comprising a metallic cap carried by the receiver of the head set and adapted to engage against the ear of the wearer, and an electrical connection between said metallic cap and the aerial binding post of the receiving set.

2. Means for connecting the human body for use as an aerial or ground for wireless receiving sets including a metallic cap superimposed upon the cap of the receiver of the head set of the receiving set and adapted for electrical connection with the aerial or ground terminal of the receiving set.

3. Means for connecting the human body for use as an aerial or ground for wireless receiving sets including a contact carried by the head set of the receiving set and brought into contact with the body by application of the head set to the head, and means for connecting said contact with the aerial or ground terminal of the receiving set.

In testimony whereof I hereunto affix my signature.

GEORGE B. SPRING.