

No. 894,258.

PATENTED JULY 28, 1908.

A. M. COBB.

TELEPHONE APPARATUS.

APPLICATION FILED JAN. 18, 1908.

2 SHEETS—SHEET 1.

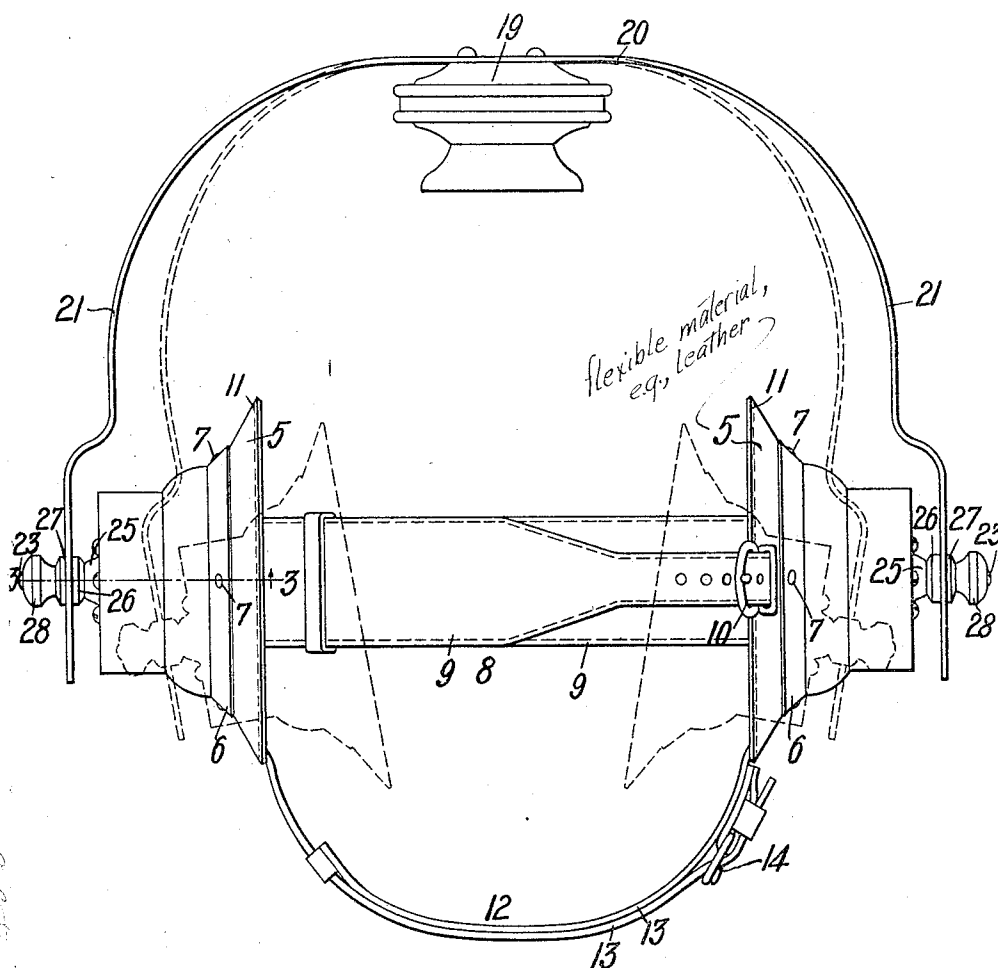


Fig. 1.

Witnesses:

Lucius B. Weymouth.
Francis H. Bishop.

Inventor:

Arthur M. Cobb,
by his attorney,
Charles S. Gooding.

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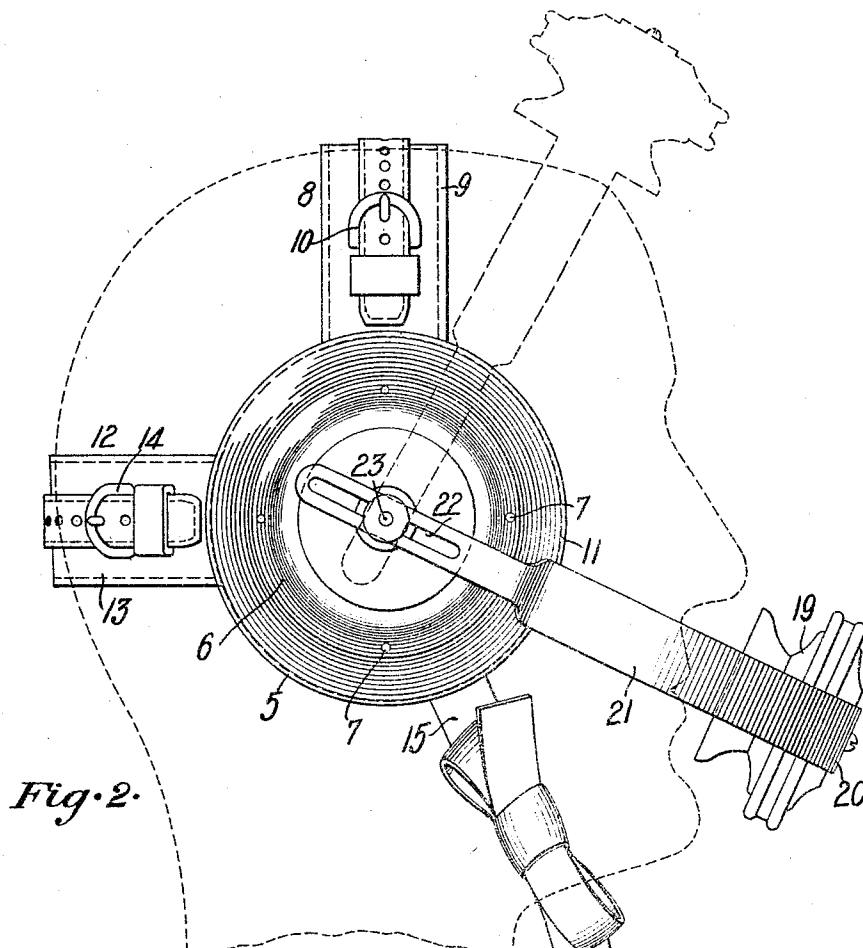


Fig. 2.

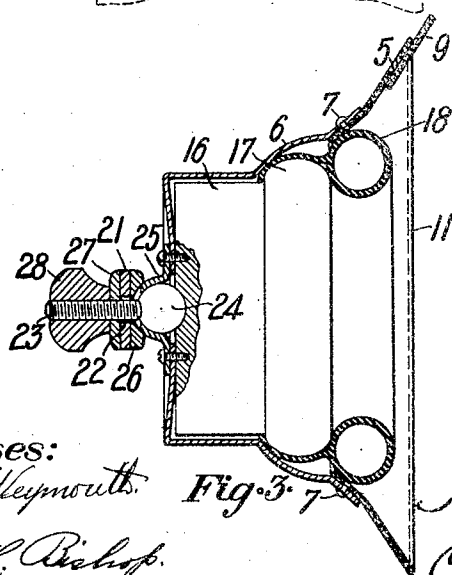


Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

ARTHUR M. COBB, OF LYNN, MASSACHUSETTS.

TELEPHONE APPARATUS.

No. 894,258.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed January 18, 1908. Serial No. 411,402.

To all whom it may concern:

Be it known that I, ARTHUR M. COBB, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Telephone Apparatus, of which the following is a specification.

This invention relates to improvements in telephone apparatus, and the object is primarily to provide a telephone apparatus comprising a transmitter and receiver or receivers adapted to be secured to the head of the user so that the receiver or receivers and transmitter are always maintained in proper relation with the ears and mouth regardless of the movements of the body and head of the user, whereby the user is able to move his mouth and ears out of proper relation with the transmitter and receivers.

The object is further to provide an apparatus of the character described which is adjustable to heads of various sizes and shapes which can be easily and quickly adjusted and which will be comfortable to the user.

While the apparatus of my invention is obviously capable of being used for various purposes, it is particularly adapted for use on war vessels to establish communication between the range finding officer and the gun captain.

Other objects and advantages will appear hereinafter.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the appended claims.

Referring to the drawings: Figure 1 is a plan of my improved telephone apparatus, the dotted lines showing the position that the transmitter supporting spring and other parts occupy when removed from the head. Fig. 2 is a side elevation of the apparatus, the user's head being indicated in dotted lines and the transmitter and its support being indicated in broken lines in its raised position. Fig. 3 is an enlarged detail sectional elevation taken on line 3—3 of Fig. 1.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5, 5 are two annular members preferably formed of leather or other suitable flexible material to which are secured casings 6, 6 in any suitable manner as by means of rivets 7, the casing 6 being preferably formed of metal. A strap 8 adapted

to extend over the top of the user's head is formed in two parts 9, 9 adjustably connected to each other by means of a buckle 10, said parts being secured to the members 5 by means of stitching 11 extending around said members adjacent to the peripheries thereof. Similarly a strap 12 adapted to extend around the back of the head is formed in two parts 13, 13 adjustably connected to each other by means of a buckle 14, said parts secured to the members 5 by means of the stitching 11. Two straps 15, 15 adapted to extend beneath the chin are also secured to the members 5 by means of the stitching 11, said straps being adjustably secured to each other as by tying together in a bow knot, as shown. By adjusting the straps 8, 12 and 15, the head piece of which they form a part, may be adjusted to various sizes and shapes of heads. Two receivers 16 located in the casings 6, respectively, are provided with annular flanges 17. Two rings 18 preferably formed of flexible material such as rubber extend between the flanges 17 and the casing 6, the spaces inside of said rings constituting recesses adapted to receive the ears of the user.

A transmitter 19 is mounted on a transmitter support 20 having two arms 21, 21 which are relatively movable, said support constituting a U-shaped spring which is adapted to press the receivers 16 toward the ears of the user, whereby the annular members 5 and the rings 18 are held in close contact with the sides of the head of the user thus shutting out all outside sound waves. In Fig. 1 the normal position of the support 20 and parts connected thereto is indicated in dotted lines and shown in full lines in the position which it occupies when on the head of the user. The arms 21 are provided with slots 22 through which pass screws 23 fast to balls 24, said balls being located in sockets 25 fast to the casings 6, respectively. Recessed washers 26 bear against the sockets 25 while washers 27 bear against the arms 21. Thumb nuts 28 having screw-threaded engagement with the screws 23 serve to bind the balls 24 in their sockets 25 and also serve to rigidly clamp the arms 21.

In the use of the apparatus, it will be understood that the heads of the users will vary greatly in width as well as in other dimensions and adjusting the apparatus to the head the ball and socket joints which consist of the balls 24 and sockets 25 allow the arms 21 to be adjusted through a wide range of

sizes without preventing the members 5 from snugly fitting against the side of the head, and the support 20 being a spring presses the rings 18 and annular members 5 against the sides of the head and thus it is unnecessary to have the straps 8, 12 and 15 as tight as would otherwise be necessary. When the transmitter 19 is out of use, the same may be raised by loosening the nuts 28 and rocking said transmitter and its support 20 on the screws 23 as pivots into the position shown in broken lines in Fig. 2, in which position the same may be clamped by means of said nuts.

Having thus described my invention, what I claim and desire by Letters Patent to secure is:

1. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a transmitter support, a universal joint connecting said support to said structure, means adapted to hold said joint in fixed position and a transmitter mounted on said support.

2. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a transmitter support, a universal joint connected to said structure and adjustably connected to said support, means adapted to hold said joint in fixed position and a transmitter mounted on said support.

3. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a socket fast to said structure, a ball movably mounted in said socket, a transmitter support connected to said ball, means to bind said ball in said socket, and a transmitter mounted on said support.

4. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a socket fast to said structure, a ball movably mounted in said socket, a transmitter support, means to secure said transmitter support to said ball, said means acting also to bind said ball in said socket, and a transmitter mounted on said support.

5. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a socket fast to said structure, said socket provided with a hole therethrough, a ball movably mounted in said socket, a screw fast to said ball and extending through said hole, a washer provided with a recess bearing against said socket, a transmitter support provided with a hole through which said screw extends, a nut adapted to clamp said support against said washer and also bind said ball in said socket, and a transmitter mounted on said support.

6. In a telephone apparatus, a structure adapted to be secured to the head, a casing secured to said structure, a receiver inde-

pendent of and located in said casing, a transmitter support, a universal joint connecting said support to said casing, and a transmitter mounted on said support.

7. In a telephone apparatus, a structure adapted to be secured to the head, a casing secured to said structure, a receiver located in said casing, a socket fast to said casing, a ball movably mounted in said socket, a transmitter support connected to said ball, means to bind said ball in said socket, and a transmitter mounted on said support.

8. In a telephone apparatus, a structure adapted to be secured to the head, a casing secured to said structure, a receiver located in said casing, a socket fast to said casing, a ball movably mounted in said socket, a transmitter support, means to secure said transmitter support to said ball, said means acting also to bind said ball in said socket, and a transmitter mounted on said support.

9. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a U-shaped transmitter support having two flexible arms, universal joints connecting said arms to said structure, means adapted to hold said joint in a fixed position and a transmitter mounted on said support.

10. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a U-shaped transmitter support having two relatively movable arms ball and socket joints connecting said arms to said structure, means adapted to hold said joint in fixed position and a transmitter mounted on said support.

11. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, two sockets fast to said structure on opposite sides, respectively, thereof, two balls movably mounted in said sockets, respectively, a U-shaped transmitter support having two relatively movable arms connected to said balls, respectively, means to bind said balls in said sockets, and a transmitter mounted on said support.

12. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, two sockets fast to said structure on opposite sides, respectively, thereof, two balls movably mounted in said sockets, respectively, a U-shaped transmitter support having two relatively movable arms connected to said balls, respectively, means to secure said arms to said balls, respectively, said means acting also to bind said balls in said sockets, respectively, and a transmitter mounted on said support.

13. In a telephone apparatus, a U-shaped transmitter support, two receivers, two universal joints connecting said receivers to opposite sides of said support, and a transmitter mounted on said support, said support con-

stituting a spring adapted to press said receivers toward each other.

14. In a telephone apparatus, a structure adapted to be secured to the head, two casings fast to opposite sides, respectively, of said structure, two receivers located in said casings, respectively, and two devices formed of flexible material provided, respectively, with projections located between said receivers and said casings, said devices being

provided, respectively, with recesses adapted to receive the ears of the user.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ARTHUR M. COBB.

Witnesses:

LOUIS A. JONES,

SADIE V. MCCARTHY.