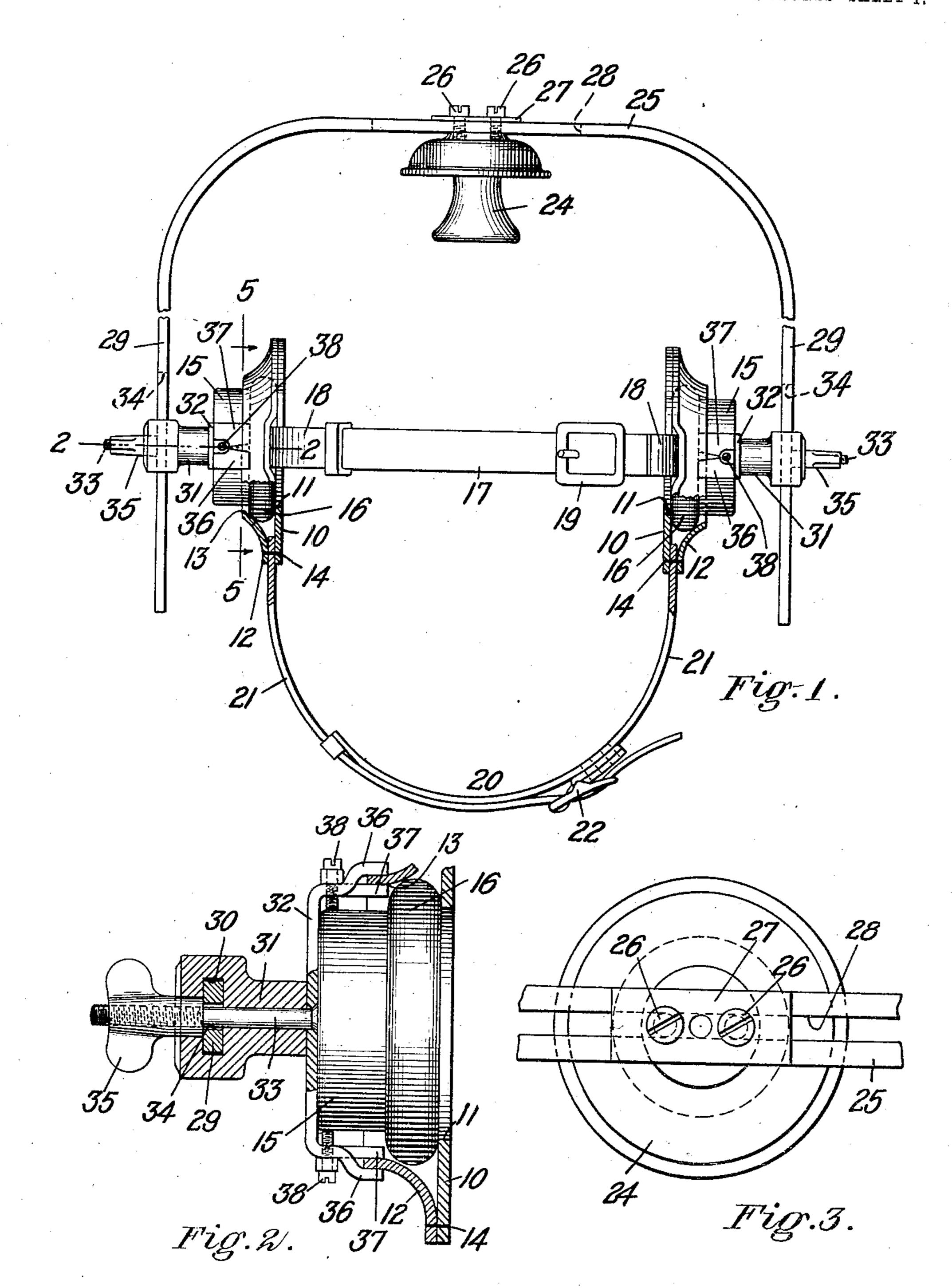
A. M. COBB.

TELEPHONE APPARATUS.

APPLICATION FILED NOV. 4, 1907.

2 SHEETS-SHEET 1.



Witnesses: Omust a. Telfer

by his attorney, Miles S. Fronding.

No. 894,257.

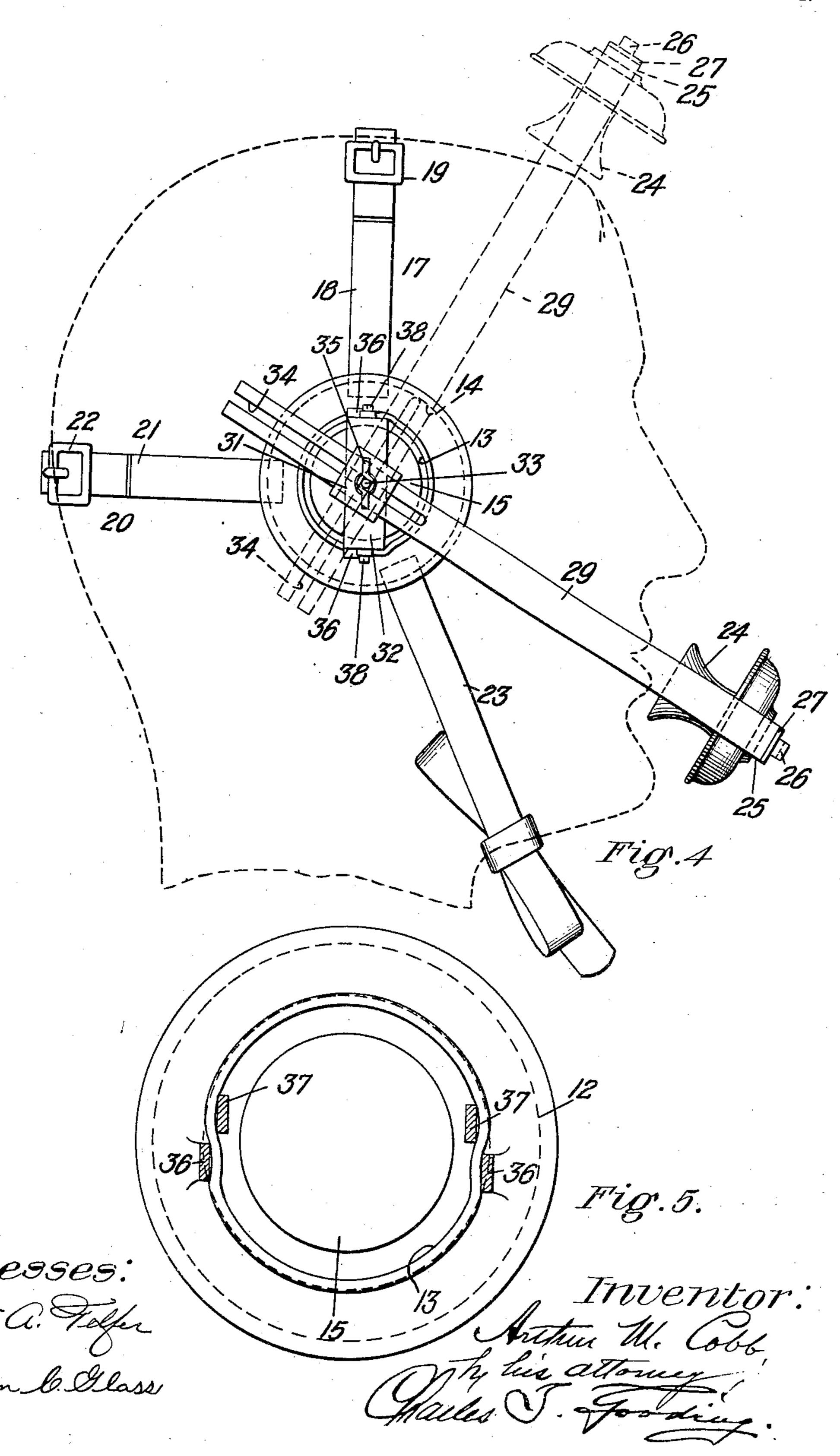
PATENTED JULY 28, 1908.

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2 SHEETS-SHEET 2.



## UNITED STATES PATENT OFFICE.

ARTHUR M. COBB, OF LYNN, MASSACHUSETTS.

## TELEPHONE APPARATUS.

No. 894,257.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed November 4, 1907. Serial No. 400,434.

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 movement of the body and head of the user, whereby the user is able to move about from place to place and move his head from side to side without moving 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.

35. 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 shown partly in section. Fig. 2 is an enlarged sectional elevation taken on line 2—2 of Fig. 1. Fig. 3 is an enlarged detail front elevation of the transmitter and a portion of the transmitter and a portion of the transmitter support showing the method of securing said transmitter to said support. Fig. 4 is a side elevation of my apparatus as applied to the head of the user, the head being indicated in dotted lines. Fig. 5 is an enlarged detail sectional elevation taken on line 5—5 of Fig. 1, looking toward the right.

Like numerals refer to like parts through

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

In the drawings, 10, 10 are two members preferably formed of leather or other suitable flexible material and provided, respectively,

with holes 11, 11. Two members 12, 12 provided, respectively, with holes 13, 13 are also preferably formed of flexible material such as leather and secured to the members 10, 10, 60 respectively, by stitching 14, 14 extending around said members adjacent to the periphery thereof. Two receivers 15, 15 extend through the holes 13, 13, respectively, said receivers being provided, respectively, with 65 annular flanges 16, 16 located between the members 10 and 12. A strap 17 adapted to extend over the top of the user's head is formed in two parts 18, 18 adjustably connected to each other by means of a buckle 19, 70 said parts being secured to the members 10 and 12 by being inserted therebetween and held in place by means of the stitching 14. Similarly, a strap 20 adapted to extend around the back of the head is formed in two 75 parts 21, 21 adjustably connected to each other by means of a buckle 22, the ends of said strap being introduced between the members 10 and 12 and secured thereto by the stitching 14.

Two straps 23, 23 adapted to extend beneath the chin are also inserted between the members 10 and 12 and held in place by the stitching 14, said straps being adjustably secured to each other, as by tying together in 85 a bow knot, as shown: By adjusting the straps 17, 20 and 23 the head piece of which they form a part may be adapted to various sizes and shapes of heads. A transmitter 24 mounted on a transmitter support 25 may 90 be adjustably secured thereto by means of two screws 26, 26 having screw-threaded engagement therewith, said screws extending through a clamping plate 27 and passing through a slot 28 formed in the transmitter 95 support 25, whereby said transmitter may be adjusted longitudinally of said slot.

The transmitter support 25 may be adjustably connected to the members 12, 12 by connections which I will now proceed to de- 100 scribe.

The transmitter support 25 which is preferably U-shaped as shown, is provided with two arms 29, 29 located in holes 30, 30 formed in posts or study 31, 31, respectively, said 105 study being mounted, respectively, on brackets or plates 32, 32 by means of screws 33, 33 which are rigidly secured to said brackets, respectively, and which pass through said study and through slots 34, 34 formed in the arms 110 29, 29, respectively. Two thumb-nuts 35, 35 having screw-threaded engagement with

the screws 33, 33, respectively, are adapted to clamp the arms 29, 29, respectively, in the studs 31, 31, respectively, and also clamp said studs against the plates 32, 32, respec-5 tively, thus preventing said studs from rotating on the screws 33, 33. The plates 32, 32 may be secured to the members 12, 12, respectively, in any desired manner as, for instance, by splitting the free ends of said 10 plates thus forming on each of said free ends two arms 36 and 37, the arms 36 being bent as shown so that the edge of the member 12 adjacent to the hole 13 may be introduced between the arms 36 and 37, as clearly 15 shown in Figs. 2 and 5. The leather forming the member 12 by reason of this peculiar engagement with the arms 36 and 37 prevents the plate 32 from rotating with relation to the member 12. Set screws 38, 38 having screw-20 threaded engagement with the plates 32, 32 bear against the receivers 15, 15 and clamp said plates to said receivers, respectively. The receivers 15, 15 and the transmitter 24 may be connected by any usual or desired 25 wiring, not shown. It will be seen that the transmitter 24 may be adjusted toward and away from the mouth of the user by loosening the nuts 35, 35 and sliding the arms 29, 29 in the posts or studs 31, 31, respectively, 30 and said transmitter may also be adjusted vertically with relation to the mouth by rocking the support 25 on the axis of the screws 33, 33, whereby the studs 31 31 are rocked on said screws. When the transmit-35 ter 24 is thus properly adjusted it is then rigidly clamped by rotating the thumb-nuts 35, 35 in the proper direction to clamp the arms 29, 29 in the studs 31, 31, respectively, and clamp said studs against the plates 32, 32, re-40 spectively. It will be also evident that when the user wishes to move the transmitter 24 entirely out of the way he can by loosening the nuts 35, 35 swing said transmitter and its support 25 into the position shown in 45 broken lines, Fig. 4, in which position it may be rigidly clamped as hereinbefore described. 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 rigidly connected to said structure, and a transmitter rigidly supported on said 55 support in such a manner as to be adjacent to the mouth of the user when the same is in use.

2. In a telephone apparatus, a structure adapted to be secured to the head, a receiver 60 supported on said structure, a transmitter support rigidly and adjustably connected to said structure, and a transmitter rigidly supported on said support in such a manner as to be adjacent to the mouth of the user when 65 the same is in use.

3. In a telephone apparatus, a structure adapted to be secured to the head, a receiver supported on said structure, a transmitter support rigidly connected to said structure, and a transmitter rigidly mounted on said 70 support in such a manner as to be adjacent to the mouth of the user when the same is in use, said transmitter being adjustable vertically and horizontally with relation to the mouth of the user.

4. In a telephone apparatus, a structure adapted to be secured to the head, said structure comprising two annular members, and a receiver provided with a projection located between said annular members.

5. In a telephone apparatus, a structure adapted to be secured to the head, said structure comprising two annular members formed of flexible material, and a receiver provided with an annular flange located be- 85 tween said annular members.

6. In a telephone apparatus, a structure adapted to be secured to the head, said structure comprising two annular members, a receiver provided with a projection located be- 90 tween said annular members, a member adapted to extend across the top of the head, a member adapted to extend around the back of the head, and a member adapted to extend beneath the chin.

7. In a telephone apparatus, a structure adapted to be secured to the head, a transmitter support rigidly connected to said structure at opposite sides thereof, and a transmitter rigidly mounted on said support 100 in such a manner as to be adjacent to the mouth of the user when the same is in use.

8. In a telephone apparatus, a structure adapted to be secured to the head, a transmitter support rigidly and adjustably con- 105 nected to said structure at opposite sides thereof, and a transmitter rigidly mounted on said support in such a manner as to be adjacent to the mouth of the user when the same is in use.

9. In a telephone apparatus, a structure adapted to be secured to the head, a transmitter support rigidly and adjustably connected to said structure at opposite sides thereof, and a transmitter rigidly and adjust- 115 ably mounted on said support in such a manner as to be adjacent to the mouth of the user when the same is in use.

10. In a telephone apparatus, a structure adapted to be secured to the head, a re- 120 ceiver mounted on said structure, a transmitter support rigidly connected to said structure at opposite sides thereof, and a transmitter rigidly mounted on said support in such a manner as to be adjacent to the 125 mouth of the user when the same is in use.

11. In a telephone apparatus, a structure adapted to be secured to the head, a receiver mounted on said structure, a stud connected to said structure, a transmitter sup- 130

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port passing through said stud, and a trans-

mitter mounted on said support.

12. In a telephone apparatus, a structure adapted to be secured to the head, two receivers mounted on opposite sides of said structure, a U-shaped transmitter support having two arms rigidly secured to opposite sides, respectively, of said structure and a transmitter rigidly supported on said support in such a manner as to be adjacent to the mouth of the user when the same is in use.

adapted to be secured to the head, two studs connected to said structure on opposite sides thereof, respectively, a U-shaped transmitter support having two arms connected to said studs, respectively, and a transmitter mount-

ed on said support.

bers formed of flexible material provided with holes therethrough, a receiver extending through one of said holes and provided with a projection located between said members, and means to secure said members to the head.

15. In a telephone apparatus, two members formed of flexible material provided with holes therethrough, a receiver extending through one of said holes and provided with

strap adapted to extend across the top of the head connected to said members, and a strap adapted to extend beneath the chin also connected to said members.

35 16. In a telephone apparatus, two members formed of flexible material provided with holes therethrough, a receiver extend-

ing through one of said holes and provided with a projection located between said members, a strap adapted to extend across the 40 top of the head connected to said members, a strap adapted to extend beneath the chin also connected to said members, a transmitter support connected to said members, and a transmitter mounted on said support.

17. In a telephone apparatus, two members formed of flexible material provided with holes therethrough, a receiver extending through one of said holes, a projection on said receiver located between said members, 50 means to secure said members to the head, a stud, means for securing said stud to said members, a transmitter support, means to secure said transmitter support to said stud, and a transmitter mounted on said support. 55

18. In a telephone apparatus, two members formed of flexible material provided with holes therethrough, a receiver extending through one of said holes, a projection on said receiver located between said members, 60 means to secure said members to the head, a stud, means for securing said stud to said members, a transmitter support, means to adjustably secure said transmitter support to said stud, and a transmitter mounted on 65 said support.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit-

nesses.

ARTHUR M. COBB.

Witnesses:
Louis A. Jones.
Annie J. Dailey.