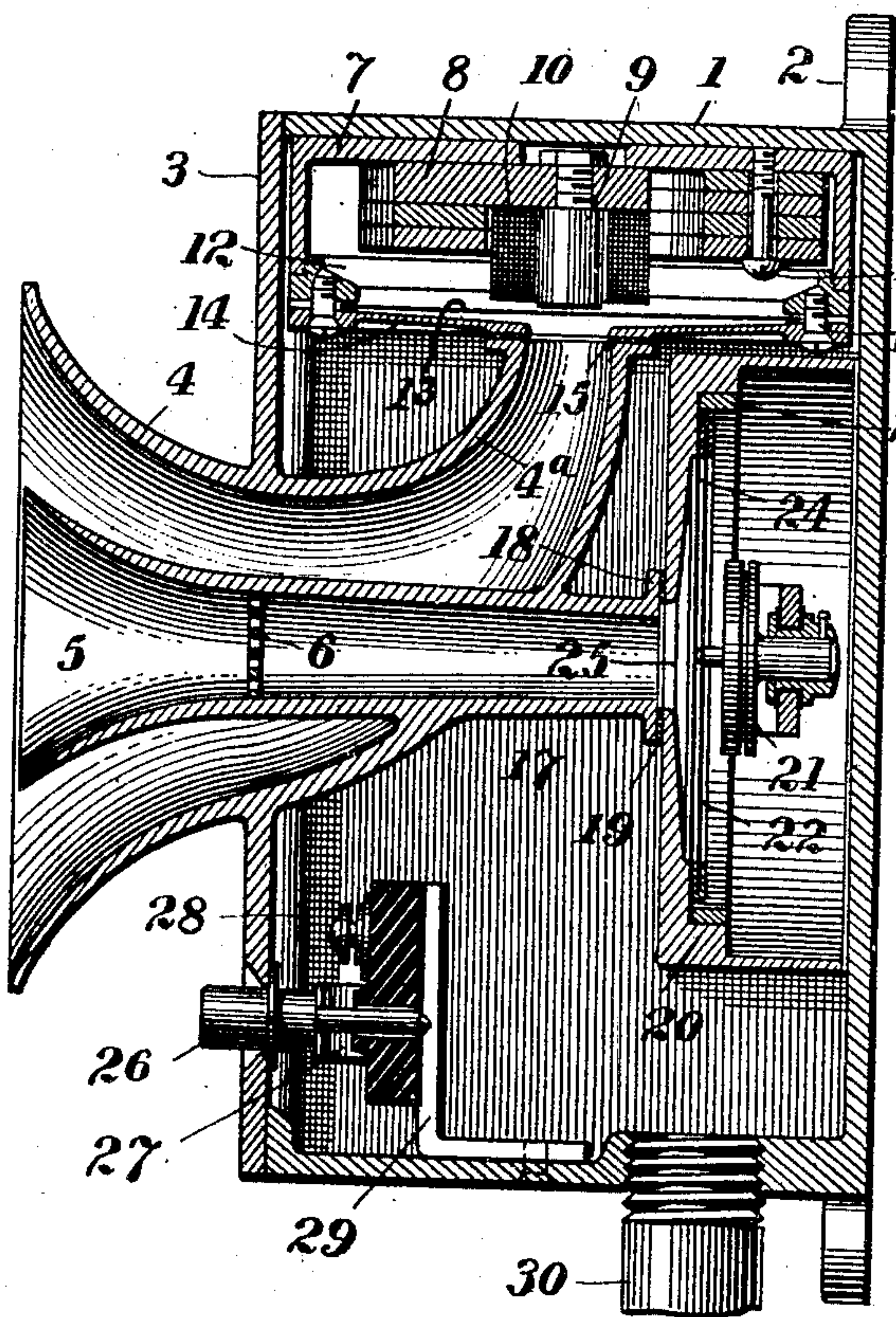


F. W. WOOD.  
TELEPHONE APPARATUS.  
APPLICATION FILED APR. 17, 1907.

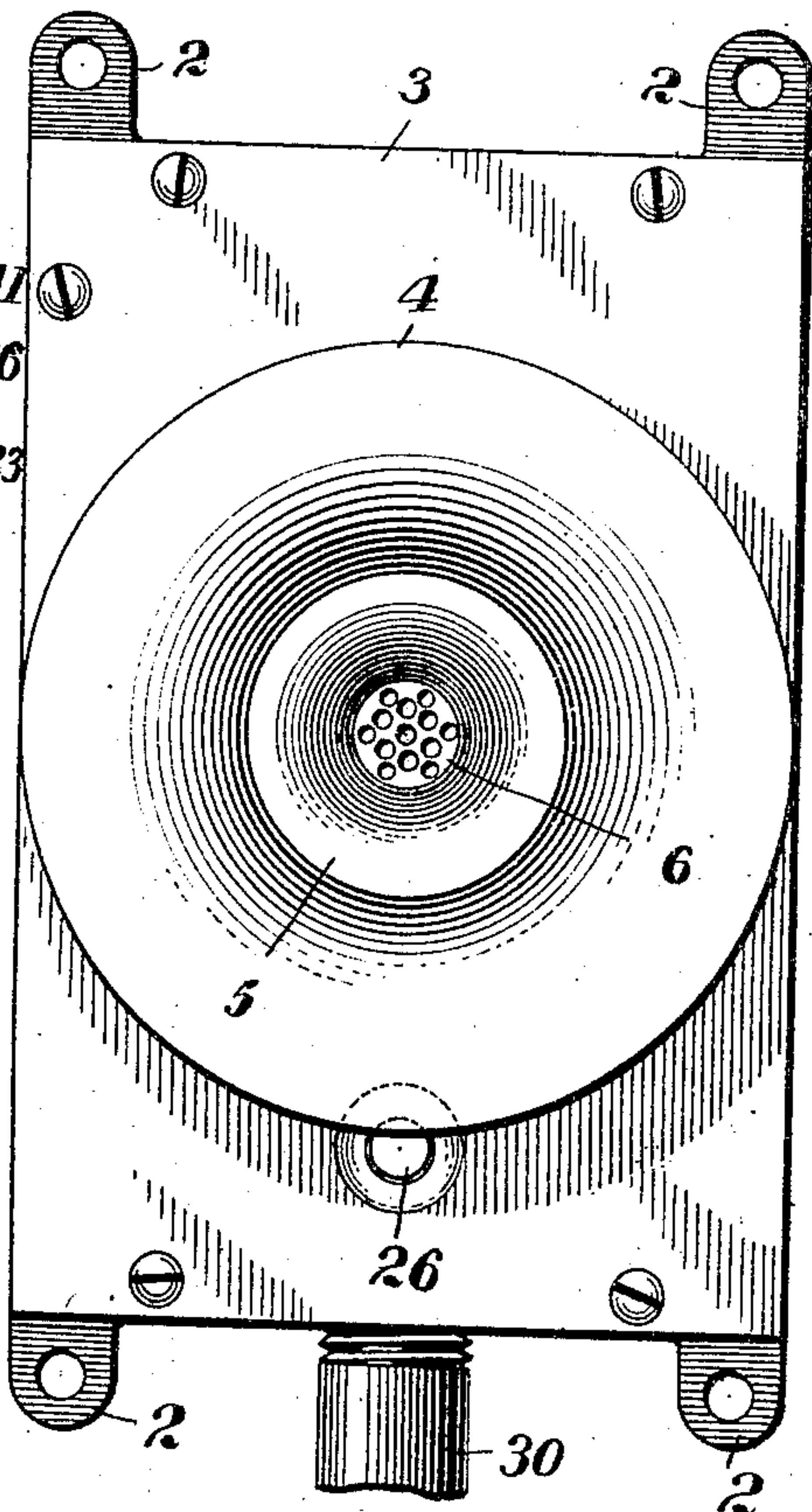
898,619.

Patented Sept. 15, 1908.

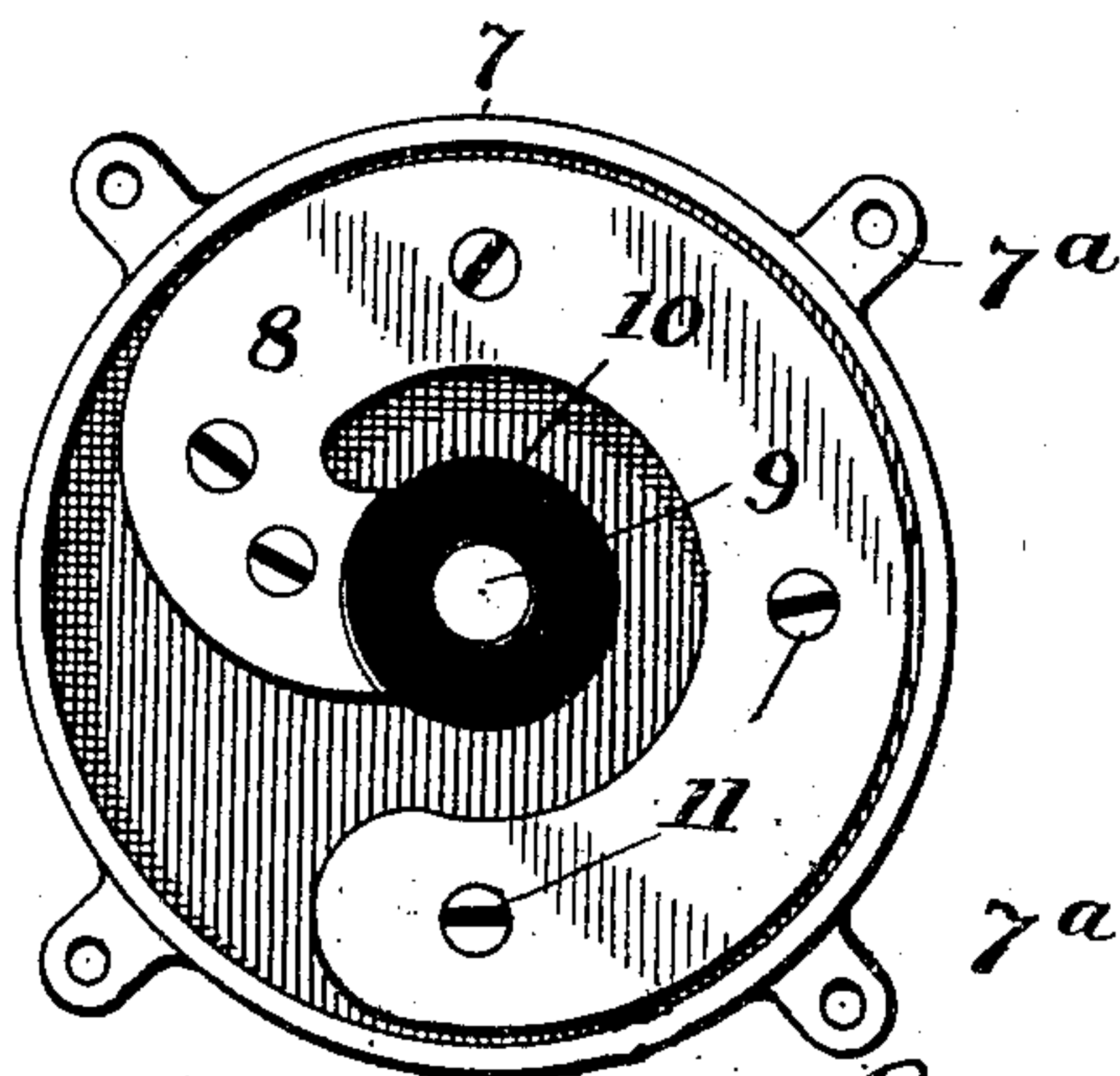
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK W. WOOD, OF NEWPORT NEWS, VIRGINIA, ASSIGNOR TO CHARLES CORY AND JOHN M. CORY, OF NEW YORK, N. Y.

## TELEPHONE APPARATUS.

No. 898,619.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed April 17, 1907. Serial No. 368,666.

*To all whom it may concern:*

Be it known that I, FRANK W. WOOD, a citizen of the United States, residing at Newport News, in the county of Warwick and State of Virginia, have invented new and useful Improvements in Telephone Apparatus, of which the following is a specification.

My invention relates to telephones, and more particularly to that type in which the receiver magnets are contained in the casing of the instrument, with the transmitter. Heretofore in such apparatus, it has been common to provide a mouthpiece or speaking tube extending from the transmitter, and one or more trumpets or ear tubes extending from the receiver. It has been found in practice, however, that, through inadvertence, the person using the instrument will frequently become confused, and attempt to speak into the trumpet, instead of the mouthpiece, and vice versa, and thus cause himself great annoyance.

It is the primary object of this invention, therefore, to so arrange the trumpet and mouthpiece that it will be impossible to make a mistake in the use of the instrument.

A further object of the invention is to simplify and improve generally the construction of such apparatus.

With the above and other objects in view, my invention consists in the construction and arrangement of parts hereinafter described, and illustrated in the accompanying drawings, in which:

Figure 1 is a central section through my improved telephone instrument. Fig. 2 is a front elevation thereof, and Fig. 3 is a plan view of the receiver case and contained magnets.

Referring to the drawings in detail, 1 represents the outer box or casing of the instrument. This is provided with lugs, 2, for attachment to a suitable support.

The casing is provided with a removable cover 3, secured thereto by screws, and attached to this cover, and preferably formed integral therewith is the mouthpiece and trumpet. The trumpet consists of a horn or megaphone, having a large flaring mouth, 4, and a tapering, upwardly curved body portion 4<sup>a</sup>, terminating in a radial flange.

The mouthpiece 5 has a flaring open end, lying substantially in the plane of the end of the trumpet and concentrically arranged with respect to the same. The mouthpiece

has a long straight body portion 17, which extends rearwardly through the curved wall of the trumpet, and terminates in an annular flange 18. The mouthpiece, as shown, is preferably integral with the trumpet, and this, in turn, integral with the casing top. By this construction, these parts can be removed as a single piece, and when so removed, ready access may be had to the electrical mechanism in the casing, for inspection or repair. The usual guard 6, is located in the mouthpiece.

7 indicates the receiver case. This consists of a cup-shaped member, provided, as shown in Fig. 3 with lugs, 7<sup>a</sup> for attachment to the main casing. Secured within the case by means of screws 11, are the receiver magnets, 8, carrying the core 9, and coil 10. An annular ring 12, is screwed into the end of the casing 7, and serves to support the diaphragm 13, between the same and the dished, disk-shaped member 14, which is secured thereto by means of screws 16. This disk-shaped member 14 is provided with a central opening which registers with the end of the trumpet 4<sup>a</sup>, and a washer 15, of soft material, is placed between such member and the flange on the end of the trumpet.

20 represents a cup-shaped member, containing the usual transmitter 21, and secured to the main casing by lugs (not shown). A ring 23, fits within the member or case 20, and supports the working diaphragm 22, and a guard diaphragm 24, in the usual manner. A central opening 25, in the end of case 20 registers with the end of the mouthpiece 17, and a washer 19, of soft material is placed between the case and flange 18, of the mouthpiece, to cushion the parts.

A push button 26, projecting through the front of the casing serves to control the talking circuit, by means of contact springs 27, connected to binding posts 28, secured to a block of insulation supported by a bracket 29. A conduit 30 incloses the wires (not shown) which lead out from the instrument.

With the above construction, it is obvious that a person using the instrument, will, on account of the concentric arrangement of the mouthpiece and trumpet, occupy the same position when speaking as when listening, and hence all chance of error is eliminated.

It will be seen, also, that I have provided a telephonic apparatus of exceedingly simple and compact construction, which is easy to



assemble, inspect, or repair, and it is thought the numerous advantages of my invention will be readily appreciated by those skilled in the art.

5 What I claim is:—

1. A telephonic apparatus comprising a concentrically arranged mouth piece and trumpet, the one projecting through the wall of the other.
- 10 2. A telephonic apparatus comprising a casing, a removable front wall therefor a mouthpiece and a trumpet formed integral with said wall, and with each other, and concentrically arranged.
- 15 3. A telephonic apparatus comprising a casing, and a mouthpiece and trumpet formed integral with each other, and mounted in said casing, the rear ends of said mouthpiece and trumpet lying in planes substantially at
- 20 right angles to each other.
4. A telephonic apparatus comprising a trumpet and a mouthpiece, formed integral, and concentrically arranged, the one projecting through the wall of the other.
- 25 5. A telephonic apparatus, comprising a trumpet with flaring mouth and curved body extending to the receiver, and a mouthpiece concentrically arranged therein, and having a body portion extending through the curved
- 30 wall thereof to the transmitter.
6. A telephonic apparatus, comprising a main casing, a receiver, a case therefor, a transmitter, a case therefor, both said cases being removably secured within said main
- 35 casing and fixed substantially at right angles to each other, and a trumpet and mouth-

piece, respectively, extending from said cases and concentrically arranged, one within the other.

7. A telephonic apparatus comprising a 40 main casing, a receiver, a case therefor, a trumpet extending from said case through said main casing, a transmitter, a case therefor, and a mouthpiece extending from said case through said trumpet.

8. In a telephonic apparatus, a casing, the front wall of which is removable, a trumpet, having a curved body extending through said front wall and secured thereto, a receiver communicating with said trumpet, a mouth- 50 piece disposed within said trumpet, extending through the curved wall thereof, and secured thereto, and a transmitter communicating with said mouthpiece.

9. In a telephonic apparatus, a main cas- 55 ing, a receiver casing located within the same, a receiver therein a removable front wall for said main casing lying at approximately right angles to said receiver diaphragm, and a trumpet having a flaring mouth and a body 60 curved through substantially a right angle, said trumpet extending through and secured to said removable wall, and having its inner end abutting said receiver casing.

In testimony whereof I have hereunto set 65 my hand in presence of two subscribing witnesses.

FRANK W. WOOD.

Witnesses:

ELDOW. ROBERTS,  
M. E. WEEKS.