

No. 799,205.

PATENTED SEPT. 12, 1905.

A. R. THOLLANDER.  
TELEPHONE RECEIVER CASING.  
APPLICATION FILED NOV. 10, 1904.

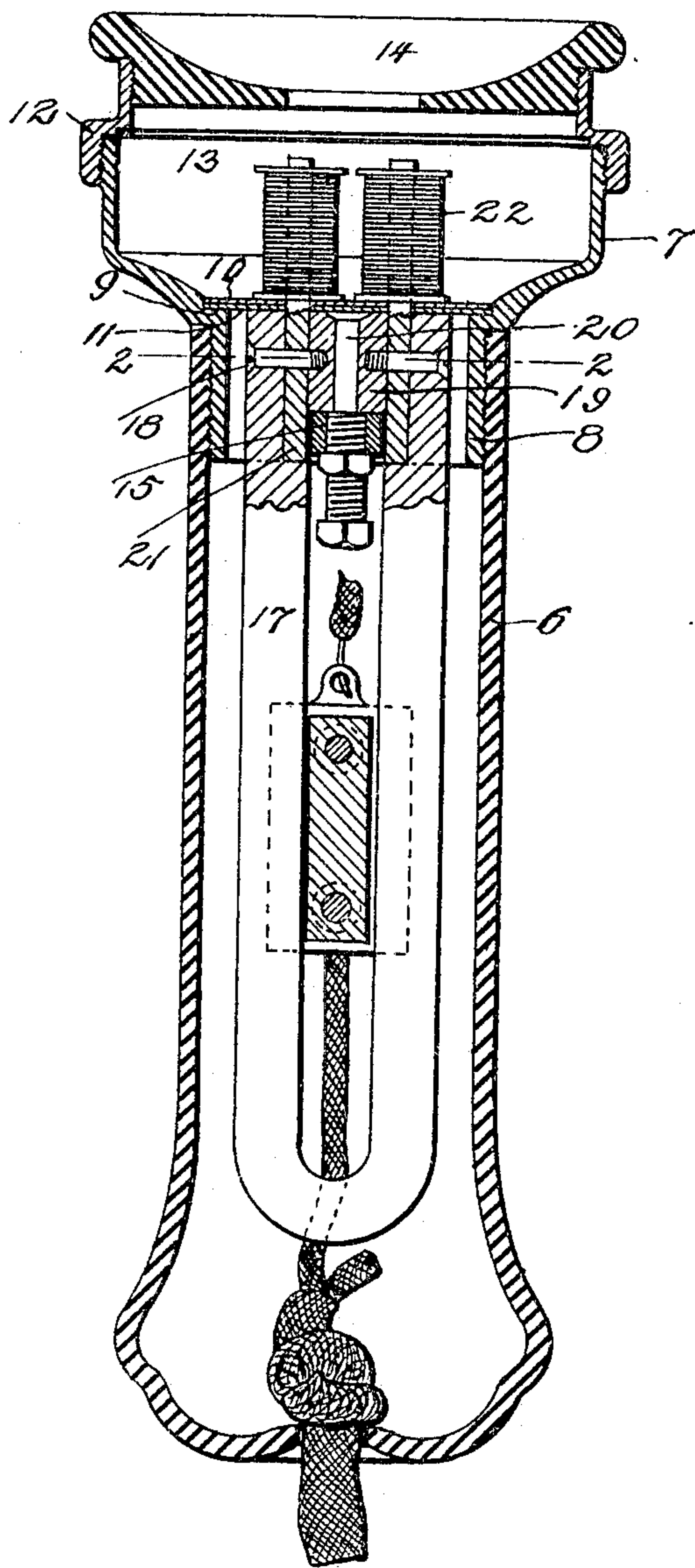


Fig. 1.

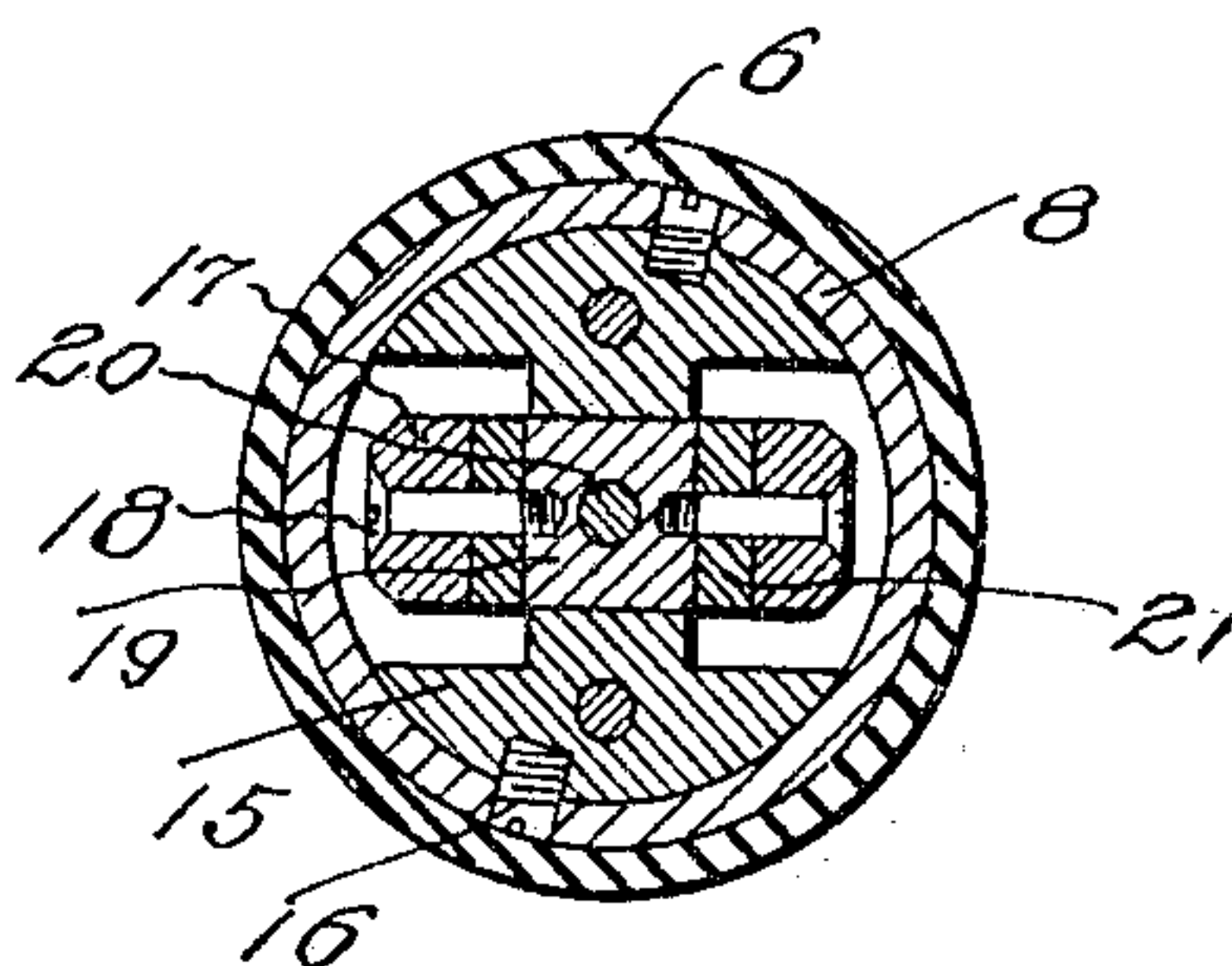


Fig. 2.

Witnesses  
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# UNITED STATES PATENT OFFICE.

AXEL R. THOLLANDER, OF CHICAGO, ILLINOIS.

## TELEPHONE-RECEIVER CASING.

No. 799,205.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed November 10, 1904. Serial No. 232,184.

*To all whom it may concern:*

Be it known that I, AXEL R. THOLLANDER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Telephone-Receiver Casings, of which the following is a specification.

This invention relates to telephone-receivers, and more especially to the casing of such receivers and to the means whereby the magnet and diaphragm are supported and held therein.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a central longitudinal section of a receiver provided with my improvement. Fig. 2 is a section on the line 2 2 of Fig. 1.

Referring specifically to the drawings, 6 indicates the barrel or handle of the receiver-casing, having interior screw-threads at its front end.

7 indicates a metal cup having at the rear side thereof a reduced tubular portion 8, which screws into the front end of the barrel 6. This cup also has a shoulder 9, on which a metal disk 10 and felt disk 11 rest, to exclude air and moisture from the space within the cup. At its front end the cup is exteriorly screw-threaded to receive a metal clamping-ring 12, which binds the diaphragm 13 against the front end of the cup. The earpiece 14 is screwed into this clamping-ring. The diaphragm is fixed with respect to the receiver-casing, any adjustment necessary being produced by movement of the magnet.

The magnet 17 is supported by a bridge-piece 15, which is fixed within the tubular portion 8 of the cup by screws 16. The magnet is movable with respect to the bridge-piece, being fixed by screws 18 to an adjusting-block 19, which slides in the bridge-piece, said block being carried by an adjusting-screw 20, which extends through said bridge-piece. These parts are the subject of a more detailed description and claims in my Patent No. 781,797,

dated February 7, 1905, and it is thought that they require no further description. The pole-pieces 21 extend through the disks 10 and 11 and receive coils 22. The adjustment permissible with the magnet permits the diaphragm to be fixed with respect to the casing. The adjusting means are all inside the casing, and no part of the casing proper need be moved or varied—that is, the casing proper forms no part of the adjusting devices and the use of lock-nuts and the like to fix such parts at adjustment is obviated. Shock, jar, or unauthorized unscrewing of the parts of the casing will not affect the adjustment.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a telephone-receiver, in combination, a barrel, a cup having a reduced tubular portion screwed in said barrel and a shoulder at the front end of said tubular portion, a bridge-piece fixed in said tubular portion, a magnet adjustably supported on the bridge-piece, packing-disks resting on said shoulder and having openings therein through which the pole-pieces of the magnet extend, and a diaphragm clamped against the front edge of the cup.

2. In a telephone-receiver casing, in combination, a barrel having internal screw-threads at the front end, a cup having a reduced tubular portion screwed into the end of the barrel, and forming a section of the casing, and having an inner shoulder, packing-disks thereon, a clamping-ring for the diaphragm, screwed on the front end of the cup, and an earpiece screwed into the clamping-ring, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AXEL R. THOLLANDER.

Witnesses:

J. F. STROMBORN,  
SIGNA FELTSKOG.