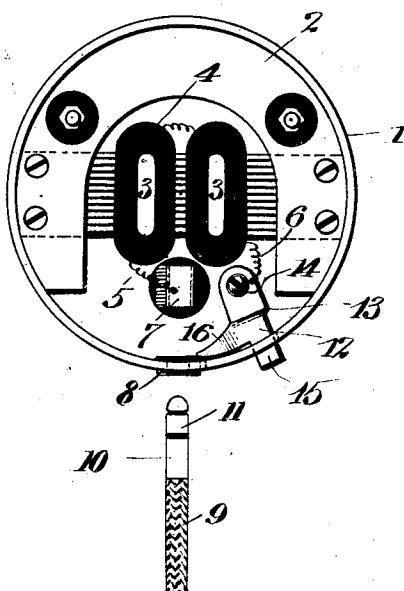


No. 843,891.

PATENTED FEB. 12, 1907.

H. W. HAFF.  
TELEPHONE RECEIVER.  
APPLICATION FILED AUG. 27, 1906.



Witnessed  
Frank. Ober  
Instructor

Inventor  
Howell W. Staff  
By his Attorneys  
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# UNITED STATES PATENT OFFICE.

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OF NEW YORK, N. Y.

## TELEPHONE-RECEIVER.

No. 843,891.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed August 27, 1906. Serial No. 332,094.

*To all whom it may concern:*

Be it known that I, HOWELL W. HAFF, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Telephone-receivers, of which the following is a full, clear, and exact description.

My invention relates to telephonic receivers, and particularly those used with acousticon and other apparatus for deaf persons.

The principal object of the invention is to improve the mechanical features of construction, and particularly the switch mechanism by which the receiver is thrown into and out of action.

With this and other-objects in view the invention consists in the features of construction hereinafter set forth and claimed:

The figure of the drawing illustrates a receiver embodying the principles of my invention.

For the purpose of economizing battery-current in telephonic apparatus of the character above mentioned it is customary to have a switch embodied in the receiver, which normally maintains the battery-circuit opened, but which is in a convenient place for engagement with the operator's fingers, so that the circuit may be closed for operation whenever desired. Inasmuch as the available space within the receiver is limited, it is a matter of considerable difficulty to arrange this switch to work positively and efficiently under all circumstances. In carrying out my invention I aim to secure these purposes with a switch of very, cheap and simple construction.

Referring to the drawing, 1 denotes the casing of a receiver having a permanent magnet 2 inset therein.

3 indicate the usual magnet-poles of soft iron, carrying bobbins 4.

45 The terminal wires of the bobbins are shown at 5 and 6, of which 5 is soldered to a

collar 7 in alinement with a hole 8 in the casing. The terminal 6 is connected to the switch element hereinafter described.

For the purpose of conveniently making the electrical connection with the receiver I employ an ordinary plug 9, having a sleeve-contact 10 and a tip-contact 11, for the respective circuit-wires. The plug is adapted to be inserted through the bushed hole 8, so that the tip-contact 11 enters the collar 7 and makes electrical contact therewith. The sleeve-contact 10 lies adjacent to the bushed hole 8 under these circumstances and falls in the path of the switch element above referred to.

The switch element (designated at 12) is conveniently made of sheet metal bent right angularly at the point 13 and pivoted at 14 to the casing 1. By reason of the bent portion 13 the outer part of the switch element is raised from the bottom of the casing and has a lug 15 extending therethrough, by which it may be engaged and moved.

16 indicates a prong on the switch element which is capable of being moved beneath and into spring engagement with the sleeve-contact above described. When the switch element is moved into this relation, it is evident that the electric circuit for the receiver is complete.

What I claim is—

In a telephone instrument, a collar constituting a fixed electrical terminal, a switch element also constituting an electrical terminal and having means thereon whereby it may be moved to and fro by hand manipulation, and a plug having a tip-contact adapted to enter said collar and having a sleeve-contact adapted to fall into the path of said switch element.

In witness whereof I subscribe my signature in the presence of two witnesses.

HOWELL W. HAFF.

Witnesses:

ALFRED W. PROCTOR,  
WM. M. STOCKBRIDGE.