

(No Model.)

A. E. DOLBEAR.  
TELEPHONE RECEIVER.

No. 355,149.

Patented Dec. 28, 1886.

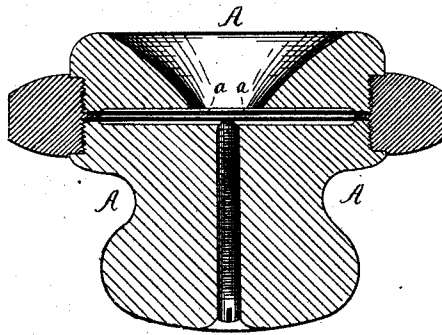


Fig. 1.

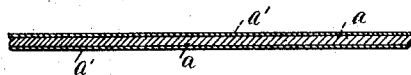


Fig. 2.

Witnesses:  
Wm. Zittel.  
John R. Snow.

Inventor.  
Amos E. Dolbear  
by J. E. Maynard

# UNITED STATES PATENT OFFICE.

AMOS EMERSON DOLBEAR, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR, BY  
MESNE ASSIGNMENTS, TO THE DOLBEAR ELECTRIC TELEPHONE COM-  
PANY, OF NEW JERSEY.

## TELEPHONE-RECEIVER.

SPECIFICATION forming part of Letters Patent No. 355,149, dated December 28, 1886.

Application filed February 15, 1882. Serial No. 52,766. (No model.)

*To all whom it may concern:*

Be it known that I, AMOS EMERSON DOLBEAR, of Somerville, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Telephone-Receivers, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a cross-section of one of my improved receivers. Fig. 2 is a section, enlarged, of one of its diaphragms.

In my Patents No. 239,742, dated April 5, 1881, and No. 240,578, dated April 26, 1881, I have described a receiver of my invention, and my present invention relates to that class of instruments; and it consists in using, in place of an uncovered metal diaphragm, a diaphragm coated on one or both sides with a dielectric substance which is electrified, the purpose being to cause a permanent electrification of the diaphragm, as distinguished from the varying electrification by means of which the diaphragm is caused to vibrate. When the diaphragm in my receiver is a plate of sheet metal, its electrification is of course only that of the electrifying agent, the former varying instantly as the latter varies, and the plate is not electrified except when the agent is acting. I have found it of considerable benefit to keep the plate electrified while the electrifying agent is not acting, and the best means known to me for effecting this is to make the

plates of metal coated with resinous or other dielectric matter capable of holding a charge of electricity for some length of time. When both plates are connected with the coil or other source of charge, both will become charged by use, and will remain appreciably charged for days without use, if the plates be made of the well-known ferrotype iron, which is coated on both sides with a compound applied in a way too well known to need description. In that form of my instrument where only one plate is connected with the source of charge the other plate should be electrified from an electrophorus, or in some other convenient way.

In the drawings, A represents the hard-rubber casing, and *a* the plates of metal, each coated on both sides with an electrified dielectric, as illustrated in Fig. 2, where *a* represents the metal portion of the plate, and *a'* the electrified coating.

What I claim as my invention is—

In a receiver of the kind above described, actuated by variations of potential, the electrified dielectric coating *a'*, in combination with the diaphragm *a*, as and for the purpose specified.

AMOS EMERSON DOLBEAR.

Witnesses:

G. B. MAYNADIER,  
JOHN R. SNOW.