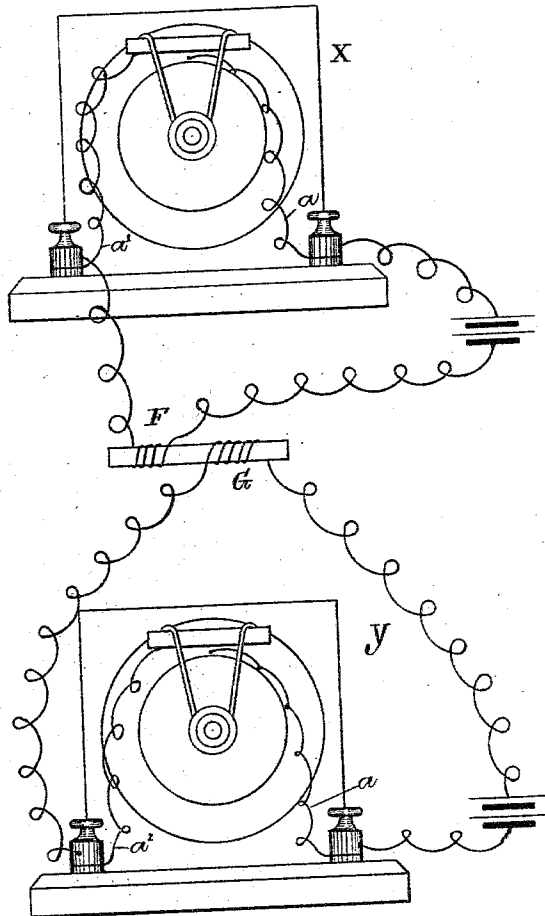


(No Model.)

A. E. DOLBEAR.
TELEPHONE.

No. 288,215.

Patented Nov. 13, 1883.



Witnesses.

L. N. Möller.
John. R. Snow.

Inventor

Amos Emerson Dolbear,
J. E. Magnadise
his atty.

UNITED STATES PATENT OFFICE.

AMOS E. DOLBEAR, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE DOLBEAR ELECTRIC TELEPHONE COMPANY, OF NEW JERSEY.

TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 288,215, dated November 13, 1883.

Application filed May 31, 1880. (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 certain new and useful Improvements in Telephones, of which the following is a specification.

My invention consists in the combination, with two coils on the same core, of two transmitters and two batteries or equivalent generators, one in circuit with each coil.

In the accompanying drawing I have illustrated one form of my invention as used to transmit speech and other sounds.

X is one transmitter, the wires *a a'* of which form part of a circuit in which is coil F on core. Y is the other transmitter, its wires being parts of a circuit in which is another coil, G, on the same core. Each circuit contains a suitable generator of electricity. With each coil thus provided with a generator for supplying its circuit with electricity, it is evident that either coil may be made primary or secondary at pleasure. The circuit *a F a' X* will be the primary and *a G a' Y* the secondary when the electric current is varied by X, and vice versa when the electric current is varied by Y.

The coils may be arranged in any suitable way; but to best adapt transmitters to be used either as transmitters or receivers they should be so arranged as to affect or be affected by the core to a like extent. When the circuits through the two coils connect two transmitters, as shown in the drawing, any variations of the diaphragm of one—such as caused by the human voice or other sound-waves, or otherwise—will cause variations in the battery-current through its circuit and induce currents on the other circuit either like or contrary to the battery-current in that circuit, and thereby produce similar vibrations in the diaphragm of the other transmitter, which thus becomes a receiver.

I claim as my invention—

The combination of two circuits, each containing a battery, a coil, and a transmitter, with a core extending through both coils, as set forth.

AMOS EMERSON DOLBEAR.

Witnesses:

J. E. MAYNADIER,
J. R. SNOW.