(No Model.)

D. DRAWBAUGH.

TELEPHONE.

No. 303,629. Patented Aug. 19, 1884.

Fig. 1.

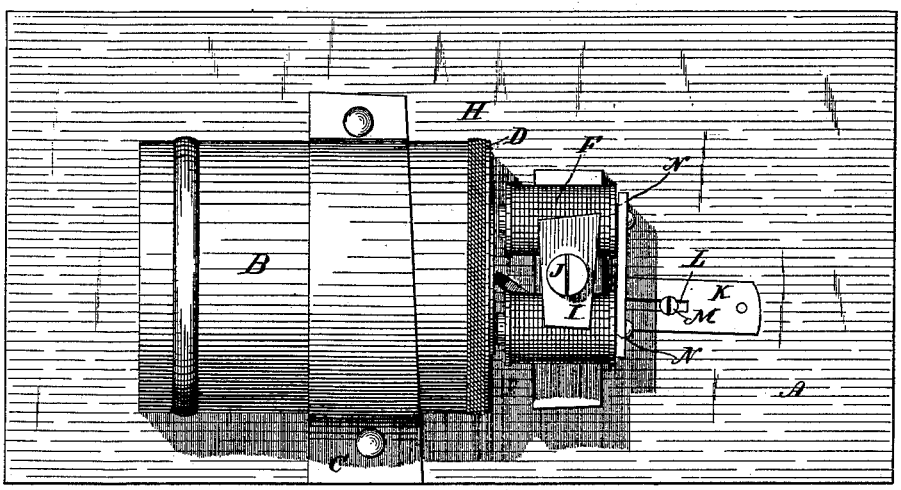


Fig. 2.

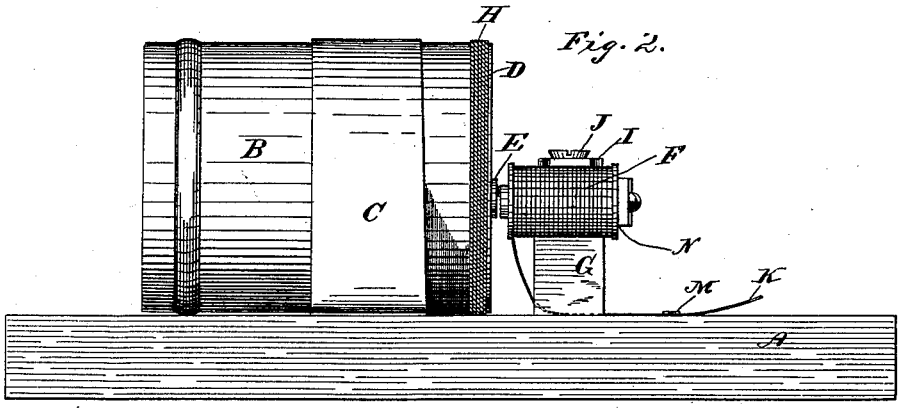
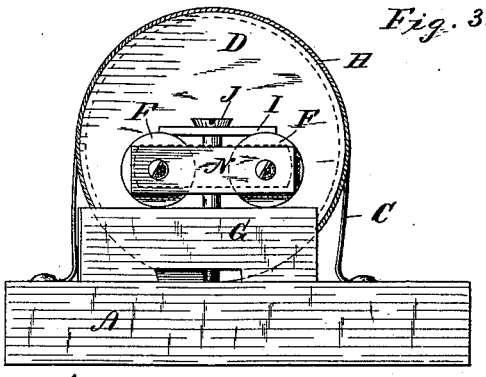


Fig. 3.



WITNESSES:

Chas. R. Burr

Fred. P. Church

INVENTOR

Daniel Drawbaugh

BY

Dabl Benjamin

ATTORNEYS

UNITED STATES PATENT OFFICE.

DANIEL DRAWBAUGH, OF EBERLY'S MILL, PENNSYLVANIA, ASSIGNOR TO THE PEOPLE'S TELEPHONE COMPANY, OF NEW YORK.

TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 303,629, dated August 19, 1884.

Application filed March 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, DANIEL DRAWBAUGH, of Eberly's Mill, Cumberland county, Pennsylvania, have invented a new and useful Improvement in Telephones, of which the following is a specification.

The invention consists in a receiving-telephone having a diaphragm of membrane or similar material, to which an armature of magnetic material is secured, and also containing an electro-magnet adjustably secured with its poles facing said armature, and a tension-spring arranged to regulate the tension of said diaphragm, all as more fully hereinafter described.

In the accompanying drawings, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a rear elevation.

Similar letters of reference represent like parts.

A is the base-board, to which is secured, by a strap of metal, C, a hollow cylindrical box, B. To one end of this box is attached, by a cord, H, or by any other suitable means, a diaphragm, D, of membrane or like material, to the center of which diaphragm is secured, in any convenient way, an armature, E, of magnetic material.

F is an electro-magnet, having its poles facing the armature E. Said magnet rests upon a supporting-block, G. Upon the upper side of the electro-magnet is a bar, I. Through this bar and into the supporting-block G passes a screw, J. By loosening this screw the magnet is no longer tightly held to the block, and therefore may be adjusted by hand near to or farther from the armature. When the magnet is so adjusted, the screw J is tightened, thus holding said magnet firmly in place.

K is a piece of spring metal containing a slot, L, through which passes the screw M, which screw enters the base-board A. One end of the spring K is bent upward and bears against the diaphragm D. A recess is made on the lower side of block G, as shown in Fig. 3, to allow of passage of the spring. When the screw M is loosened, the spring K may be adjusted to bear with greater or less pressure upon the diaphragm D, and the spring may be secured, after being adjusted in any desired position, by tightening the screw M. The spring K thus serves as a means of regulating the tension of the diaphragm.

At N are the ends of the wire forming the coil of the electro-magnet, to which ends the circuit-wires are attached.

I claim as my invention—

1. In combination with the membrane diaphragm of a telephone, a spring for regulating the tension of said diaphragm, interposed between the diaphragm and a support, and pressing upon the diaphragm.

2. In combination with the membrane diaphragm, an adjustable spring for regulating the tension of the diaphragm, interposed between the diaphragm and a support, and pressing upon the diaphragm.

3. In combination with the membrane diaphragm, its attached armature, and the electro-magnet, a spring bearing against the diaphragm, substantially as described.

4. In a telephone the diaphragm of which is liable to absorb moisture from the air, and thus become more or less injuriously affected thereby, and in combination with such diaphragm a spring arranged to bear against said diaphragm and compensate for its expansion, substantially as described.

DANIEL DRAWBAUGH.

Witnesses:

PARK BENJAMIN,

J. B. CHURCH.