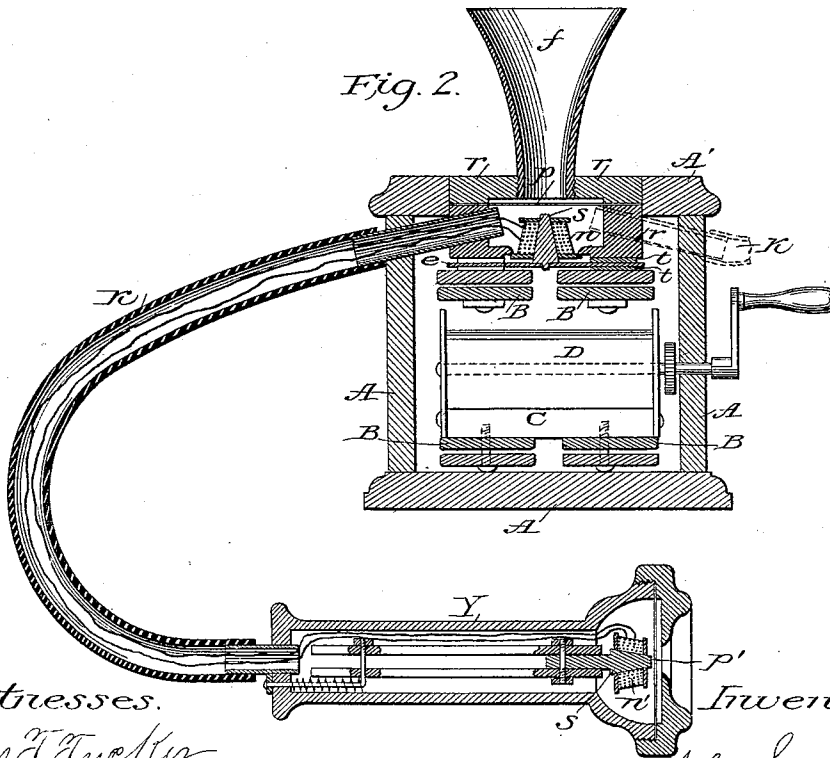
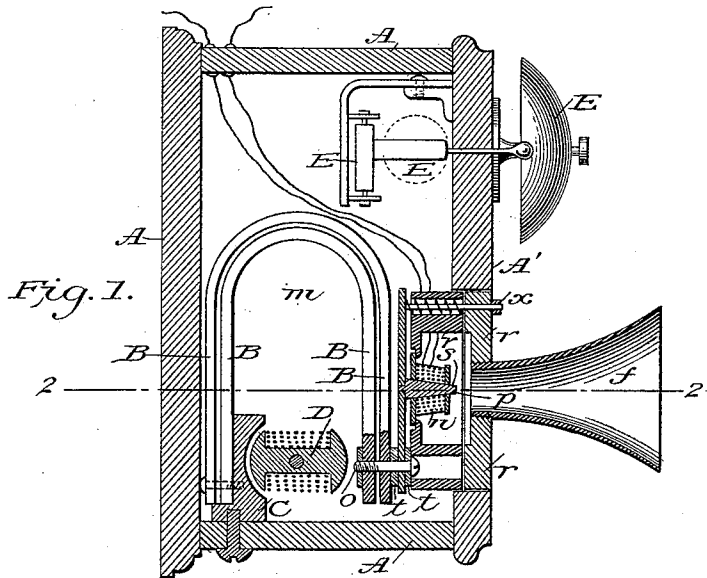


(No Model.)

J. SERDINKO.
TELEPHONE.

No. 536,763.

Patented Apr. 2, 1895.



Witnesses.
Oren J. Tucker
Eugene Hernandez.

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN SERDINKO, OF SAN ANTONIO, TEXAS, ASSIGNOR TO THE NATIONAL UNION TELEPHONE COMPANY, OF SAME PLACE.

TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 536,763, dated April 2, 1895.

Application filed December 4, 1894. Serial No. 530,796. (No model.)

To all whom it may concern:

Be it known that I, JOHN SERDINKO, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Improvement in Telephones, of which the following is a specification, reference being made to the annexed drawings, forming a part hereof, in which—

Figure 1 is a transverse horizontal view of the magneto bell, with my improvement, and Fig. 2 is a vertical transverse view taken on line 2—2 Fig. 1.

The object of my invention is to provide a single and effectual magneto telephone both in receiving and transmitting and improving on my Patent No. 529,203, dated November 13, 1894, to which I refer.

Similar letters of reference indicate corresponding parts in both views.

Referring to the drawings: A is the magneto bell box. B, B are the permanent magnets of the same.

C is the soft iron extension piece of the magnets B, B, in front of the armature D, as commonly used.

D is the armature.

E, E, E, are the parts of the bell as generally used.

To one side of the permanent magnets and toward the lid of A° is bolted or fastened the telephone chamber, and its parts, *r*, *r*, as previously shown in my Patent No. 529,203.

r, *r*, are the chamber pieces.

O is the screw.

t, *t*, are soft iron pieces, between which is the extension piece *e*, which has on its farthest end fastened a rod *x*, by which the telephone may be adjusted, and near its center is fastened the cone shaped core S, with its bobbin *n*.

p is the diaphragm, and *f* is the prolonged mouth-piece.

The lid A° is cut away to admit the chamber, *r*, *r*, and the mouth-piece *f*.

As will be perceived, and which is my invention, the magneto generator M has only one extension piece *c*, facing the armature D, against the magnets, B, B, while on that side against the telephone the magnets B, B, have no iron extension piece. I simply leave it out or take it away. This is for the purpose that the magnets can by induction more strongly

magnetize the iron disk *e*, and its core S, and to its full extent.

The telephone chamber, as in my former invention, (Patent No. 529,203) has one or two apertures into which is or are inserted the flexible tubes K, K. The receiver Y has also at its lower end an aperture into which the other end of the flexible tube K enters, as shown in Fig. 2.

The telephone receiver Y is of the common pattern now generally in use, excepting its core S°, which is also cone-shaped as shown in drawings, the smaller end being toward the diaphragm.

Now, when the operator speaks to the mouth-piece *f*, the diaphragm *p* will vibrate and produce the well known currents in helix *n*. It will also produce currents in helix *n*° of the receiver Y, as the sound from the operator will pass from chamber *r*, by means of the flexible tubes also to the chamber of receiver Y and vibrate the diaphragm P°, and its helixes *n*, *n*°, are also electrically connected either in parallel or in series, to the line and distant telephone. The currents of both will go simultaneously together to the line and the distant operator. So again, the operator at a distance, by a similar telephone will receive the sound more intensified. As he listens at the receiver Y, he will not only receive the sound from the diaphragm *p*° of his receiver, but also the sound of the diaphragm *p* of the transmitter by means of the flexible connecting tubes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a telephonic instrument, the combination with the magnets of a magneto call, the bobbin, the diaphragm fixed in front of the latter, the iron disk and core in proximity to the said magnets, the said core extending through the bobbin, into close proximity to the diaphragm, the said magnets of a magneto call having the iron extension piece C, on one side only and the magneto call armature, substantially as shown and described.

San Antonio, Texas, November 23, 1894.

JOHN SERDINKO.

Witnesses:

B. A. JUDD,

C. V. MILLIGAN.