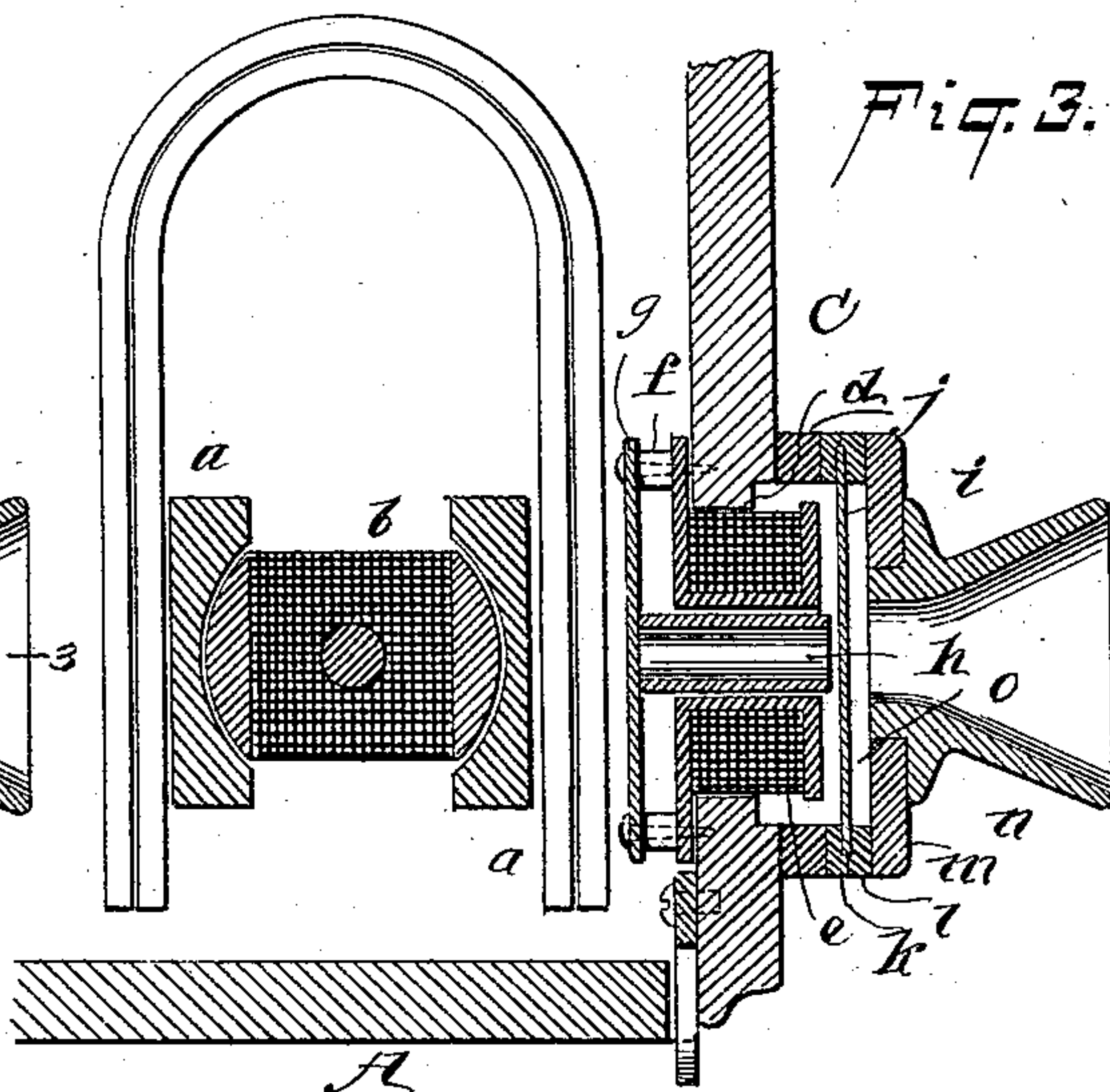
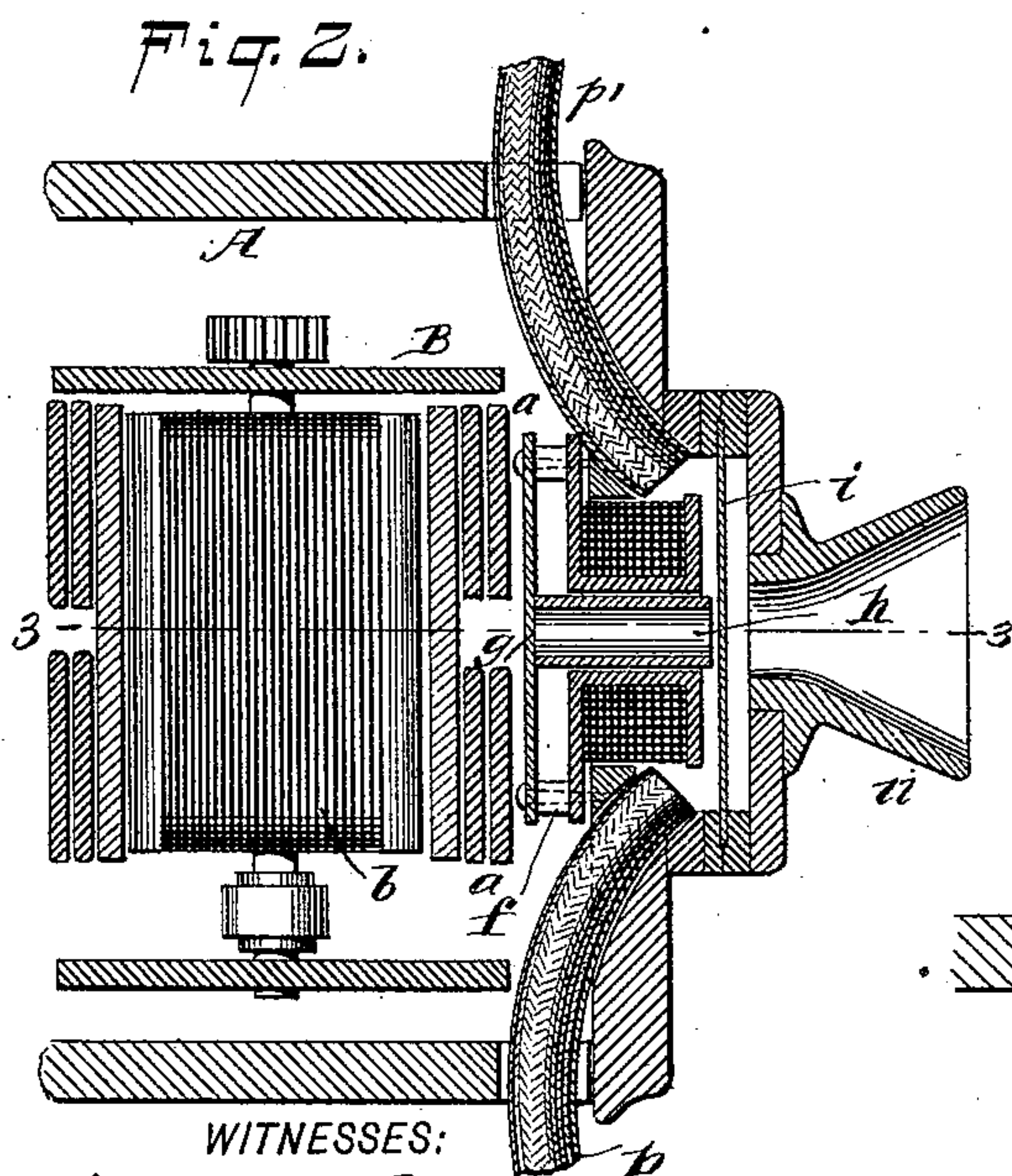
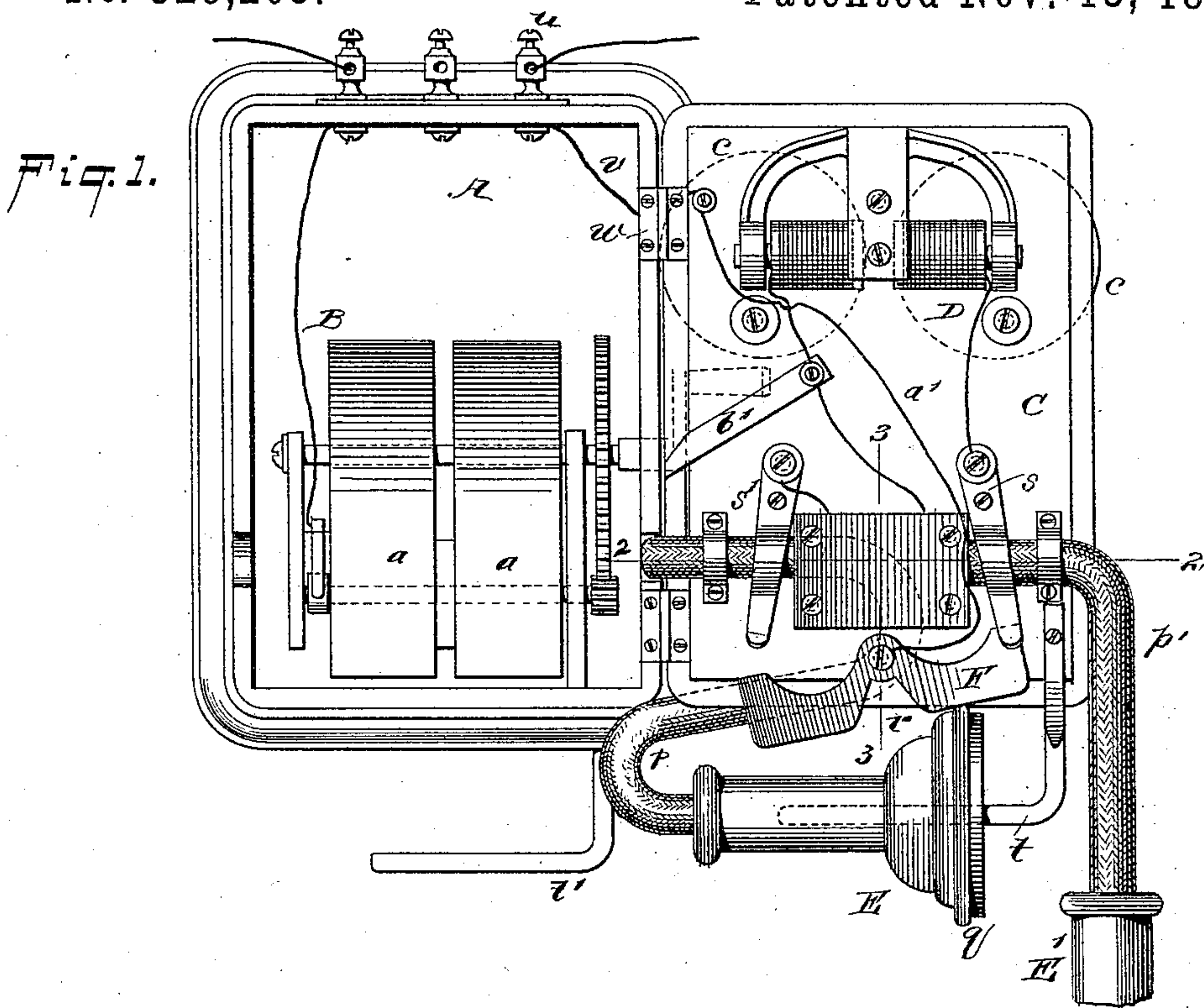


(No Model.)

J. SERDINKO.
TELEPHONE.

No. 529,203.

Patented Nov. 13, 1894.



WITNESSES:

William Gehel.
Geo M. Hopkins.

INVENTOR

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ATTORNEYS.

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. 529,203, dated November 13, 1894.

Application filed April 28, 1894. Serial No. 509,368. (No model.)

To all whom it may concern:

Be it known that I, JOHN SERDINKO, of San Antonio, in the county of Bexar and State of Texas, have invented new and useful Improvements in Telephones, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a front elevation of a magneto call box to which my improved telephone has been applied. Fig. 2 is an enlarged horizontal section taken on line 2—2 in Fig. 1, with the door of the box closed; and Fig. 3 is a vertical transverse section taken on line 3—3 in Fig. 2.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide a simple and effective magneto telephone, in which the receiving and transmitting instrument will receive its magnetism from the magnets of the magneto call. To this end I have added to such instrument the apparatus hereinafter described.

The magneto call box A, is provided with the magneto electric generator B, having magnets *a* and an armature *b* of well known description. To the inner surface of the cover C of the magneto call box is secured a magnet D; and the signal bells *c* are secured to the outer surface of the box cover in the usual way. As the apparatus thus far described is well known and in common use, I do not claim it except in so far as it enters into combination with my devices. In the lower portion of the cover C is formed an aperture *d*, in which is inserted the bobbin *e* of the transmitting and receiving telephone. The flange of the bobbin extends over the inner surface of the cover C. Against the flange of the bobbin is placed a ring *f*, and against the ring is placed an iron disk *g*, to the center of which is secured a tubular soft iron core *h*, which extends through the bobbin *e*. In front of the tubular core *h* is supported an iron diaphragm *i*, in a cell formed of the rings *j*, *k*, *l*, the cover *m* and the mouthpiece *n*.

The iron disk *g*, when the cover C is closed, lies in close proximity to the field magnets *a*, the said disk, together with the tubular core *h*, being magnetized strongly by induction

from the magnets *a*. The space behind the diaphragm *i* and in front of the iron disk *g*, forms a chamber which is separated from the chamber *o* by the diaphragm *i*, and in the sides of the said chamber are inserted flexible tubes *p* *p'*. The said tubes terminate in ear pieces E E', the said ear pieces being each provided with a flange *q*.

To the inside of the cover C is pivoted a double switch arm F, having a central V-shaped notch *r*, and to the cover are attached contact springs *s* *s'*, with either of which the switch lever F may make contact. To the cover C is attached a right angled rod *t*, upon which the ear piece E is placed when the telephone is not in use. When the telephone is placed on the right angled rod *t*, the engagement of the flange *q* with the lever F carries the end of the said lever into contact with the spring *s*, and when the ear piece is removed from the rod *t*, the flange *q* enters the notch *r* in the lever F, and swings the said lever so as to disconnect it from the spring *s* and bring it into contact with the spring *s'*. The ear piece E', when not in use, is placed on a right angled rod *t'* projecting from the bottom of the case of the magneto call.

When the ear piece E is on the support, as shown in Fig. 1, and the lever F is in contact with the spring *s*, the telephone is cut out of the circuit, and the current from the line wire passes through the binding post *u*, wire *v*, hinge *w*, wire *a'*, lever F, contact spring *s*, bell magnet D to the ground connection *b'*. This circuit is maintained so long as the lever, F, is held supported by the ear-piece, E, as shown in Fig. 1, and in such condition the magneto-call will receive or send calls. When, however, the ear piece is removed, the lever F is tilted and its contact with the spring *s* is broken, and it forms an electrical contact with the spring *s'*. Under these conditions the current arriving by the line passes through the binding post *u*, the wire *v*, hinge *w*, wire *a'* to the lever F as before, thence through the spring *s'*, bobbin of the telephone, thence to the ground connection. The telephone message is spoken into the mouthpiece *n*, and it is heard through the flexible tubes *p* and ear pieces E E' of the distant instrument.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. In a telephonic instrument, the combination with the magnets of the magneto-call, the
5 bobbin, and the diaphragm fixed in the front of the latter, of an iron disk fixed in proximity to the said magnets, and a core fixed to said disk and extending through the bobbin, into
10 close proximity to the diaphragm, as shown and described.

2. In a telephonic instrument, the combination with the magneto-call magnets, and the
bobbin, and diaphragm, of a soft-iron induction piece fixed between the said magnets and
15 diaphragm, a portion of the said piece projecting into proximity to the diaphragm, as shown and described.

3. The combination with the magneto trans-

mitting and receiving telephonic instrument, of two contact springs, a switch lever pivoted
20 intermediately of said springs and having a central notch, a rod for supporting the ear-piece of the instrument, the same being arranged horizontally below the said lever, in
25 the same plane with the springs and lever, as shown and described, whereby when the ear-piece is slid on the rod it forces the switch lever beneath one spring, and supports it there, while the instrument is out of use, and, when withdrawn, horizontally, from the rod, 30 it breaks the circuit and forms another, as set forth.

JOHN SERDINKO.

Witnesses:

A. N. CALLAWAY,
O. B. LOVE.