

(No Model.)

J. A. LAKIN.
TELEPHONE TRANSMITTER.

No. 278,026.

Patented May 22, 1883.

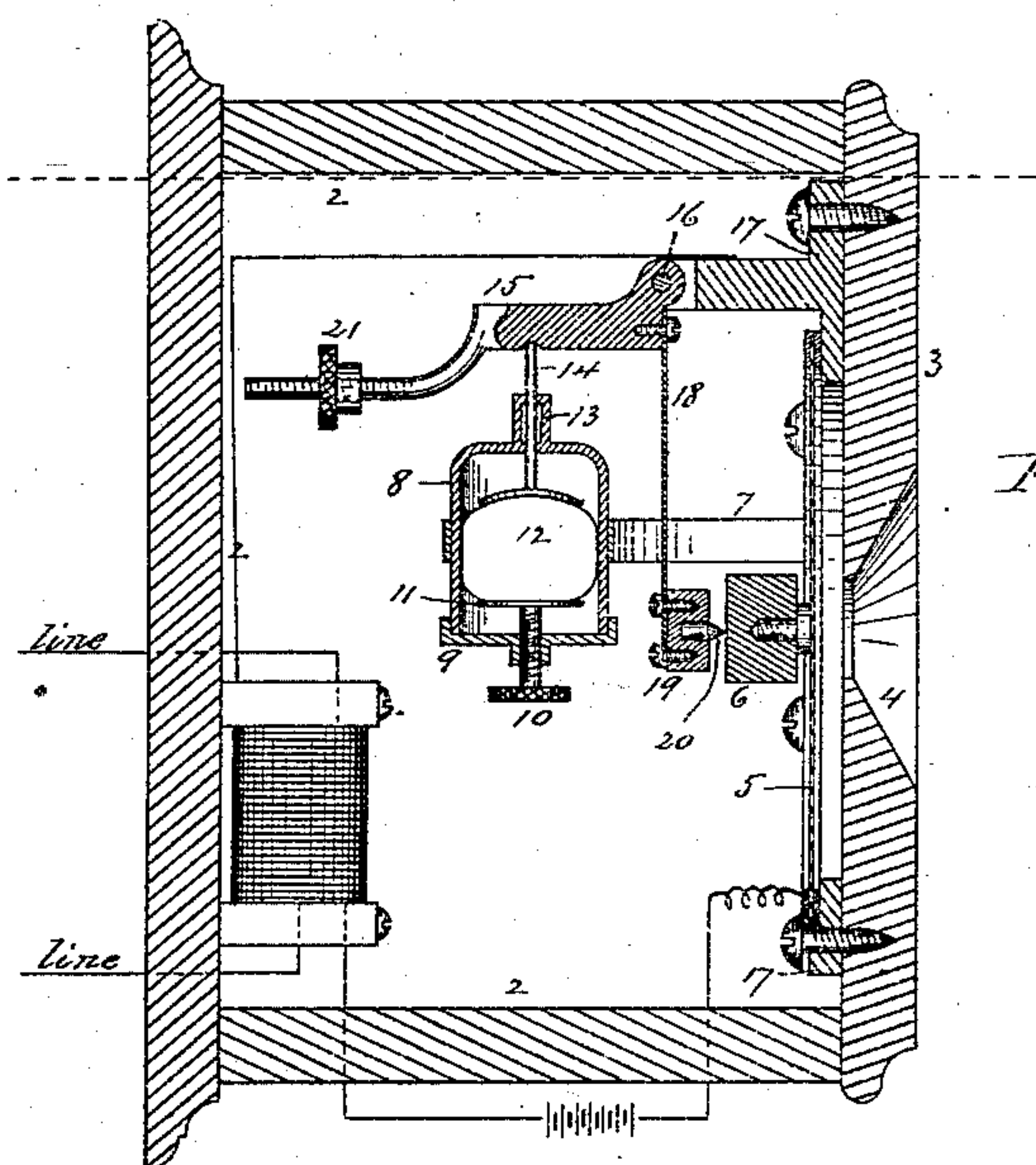


Fig. II

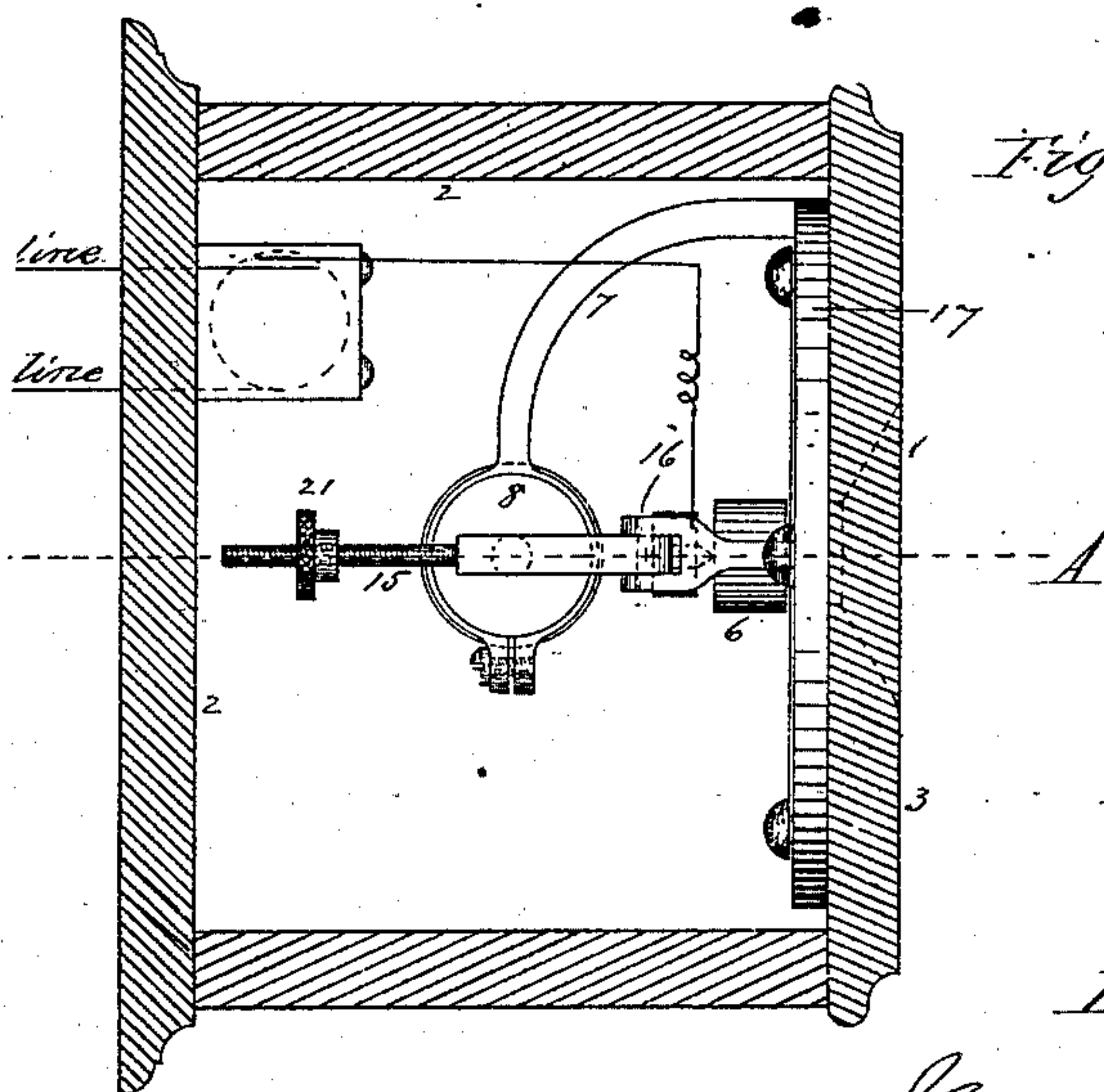


Fig. I

Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES A. LAKIN, OF WESTFIELD, MASSACHUSETTS.

TELEPHONE-TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 278,026, dated May 22, 1883.

Application filed February 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. LAKIN, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Telephone-Transmitters, of which the following is a specification and description.

The object of my invention is to provide a cheap, effective, and durable telephone-transmitter, easily and quickly adjusted, and sensitive in its operation; and I accomplish this by the mechanism substantially as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure I is a plan view of a transmitter made according to my invention, with the top of the case removed to show the arrangement of the parts; and Fig. II is a vertical section of the same at line A of Fig. I.

In the drawings, 2 represents the case of the transmitter, of which 3 is the door containing the mouth-piece 4, and to which the ordinary metal frame, 17, containing the diaphragm 5, is secured in the ordinary manner.

To any convenient point on the inside of the door I secure a bracket, 7, to support a holder, 8, which consists of a hollow vessel of convenient form and size, with a small orifice through one end at 13, and with a plate, 9, to close the other end, with an adjusting-screw, 10, turned through a threaded hole in said plate, and with a disk, 11, secured to the inner end of the said screw.

Within the holder 8, and under the disk 11, I place an air-tight vessel, 12, made preferably in the form of a rubber sack and filled with air, and a small rod, 14, preferably provided with a small disk or plate on its inner end, extends out through the orifice at 13, so as to move freely therethrough with as little friction as possible.

To the metal frame 17, secured to the inside of the door, or to a stud projecting therefrom, is pivoted at 16 a lever, 15, having a screw-thread on its outer end, upon which is turned a nut, 21, and the rod 14 extends upward to the lower side of the lever 15, so that the latter may have a bearing on the upper end of the said rod, as shown in Fig. II.

To a point on the lever 15 approximately beneath the pivot 16, I secure a spring, 18,

having a carbon button, 19, secured to its lower end, with a metallic contact-point, 20, fixed thereto in a position to impinge lightly against the rear side of the carbon button 6, secured to the rear side of the diaphragm.

The bracket 7 may be permanently secured to the holder 8; or a clamping-ring may be made on its upper end, through which said holder may extend, so that by clamping the ring the holder may be held at any desired point of elevation in making any approximate adjustments of the latter with reference to its position beneath the lever 15.

The diaphragm 5, being insulated from the metal frame 17, may be connected with one pole of a battery, and the spring 18 or the metal to which it is attached be connected with a primary of an induction-coil connected with the other pole of the battery, the line being connected with the secondary of the coil.

It will be seen that in this construction the contact-point 20 has no vertical movement against the carbon button 6, but moves directly away from it in one direction and in the other direction against it, in practically a straight line horizontally and perpendicular to the rear side of the button, so that the circuit is constantly being made and broken by the operation or vibration of the diaphragm.

The pressure of the rod 14 against the lever 15 may be adjusted to any desired degree by turning the screw 10 either in or out, to force the air-vessel 12 more or less against the said rod, and the weight or pressure of the lever 15 downward may be changed by turning the nut 21 in either direction on the threaded end of said lever. Both these adjustments may be used in making the approximate adjustments for the pressure of the vibrating contact-point 20 against the diaphragm or the button 6, secured thereto, constituting the vibrating contact-surface; but either one of these adjustments is quite sufficient to make the finer adjustment required for the contact of the point 20 against the vibratory contact-surface.

Having thus described my invention, what I claim as new is—

1. The combination, in a telephone-transmitter, of a diaphragm or vibratory contact-surface connected with one pole of a battery, an adjustably-weighted pivoted lever provided

with a spring having a vibrating contact-point,
20, an elastic vessel containing confined air,
and a rod having a bearing at one end against
said air-vessel and at the other end against
5 said weighted lever connected with the other
pole of the battery, substantially as described.

2. As a means of adjusting a vibrating con-
tact-point to make contact with the vibratory
contact-surface of a transmitter, an adjustably-
10 weighted lever having a spring with the con-
tact-point attached thereto, a rod having a

bearing at one end against said weighted le-
ver, and a vessel containing confined air sup-
ported in position by a holder with a screw to
force said air-vessel with more or less press- 15
ure against said rod and weighted lever, sub-
stantially as described.

JAMES A. LAKIN.

Witnesses:

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