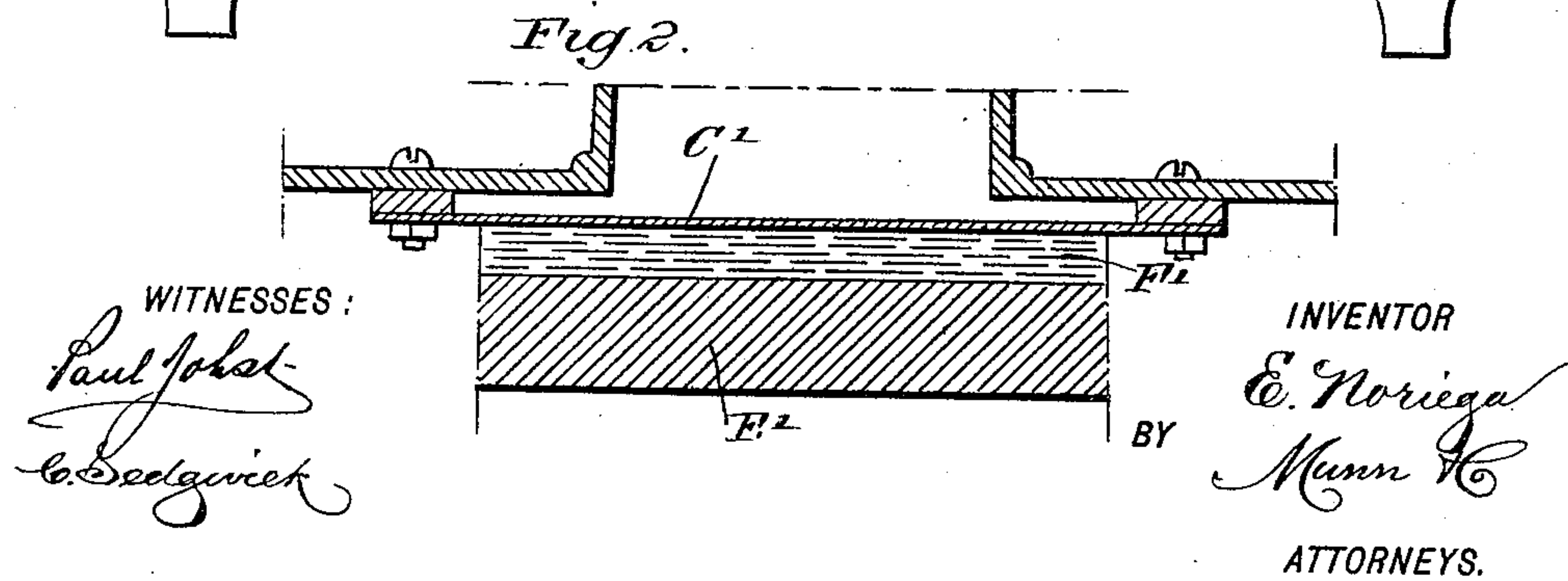
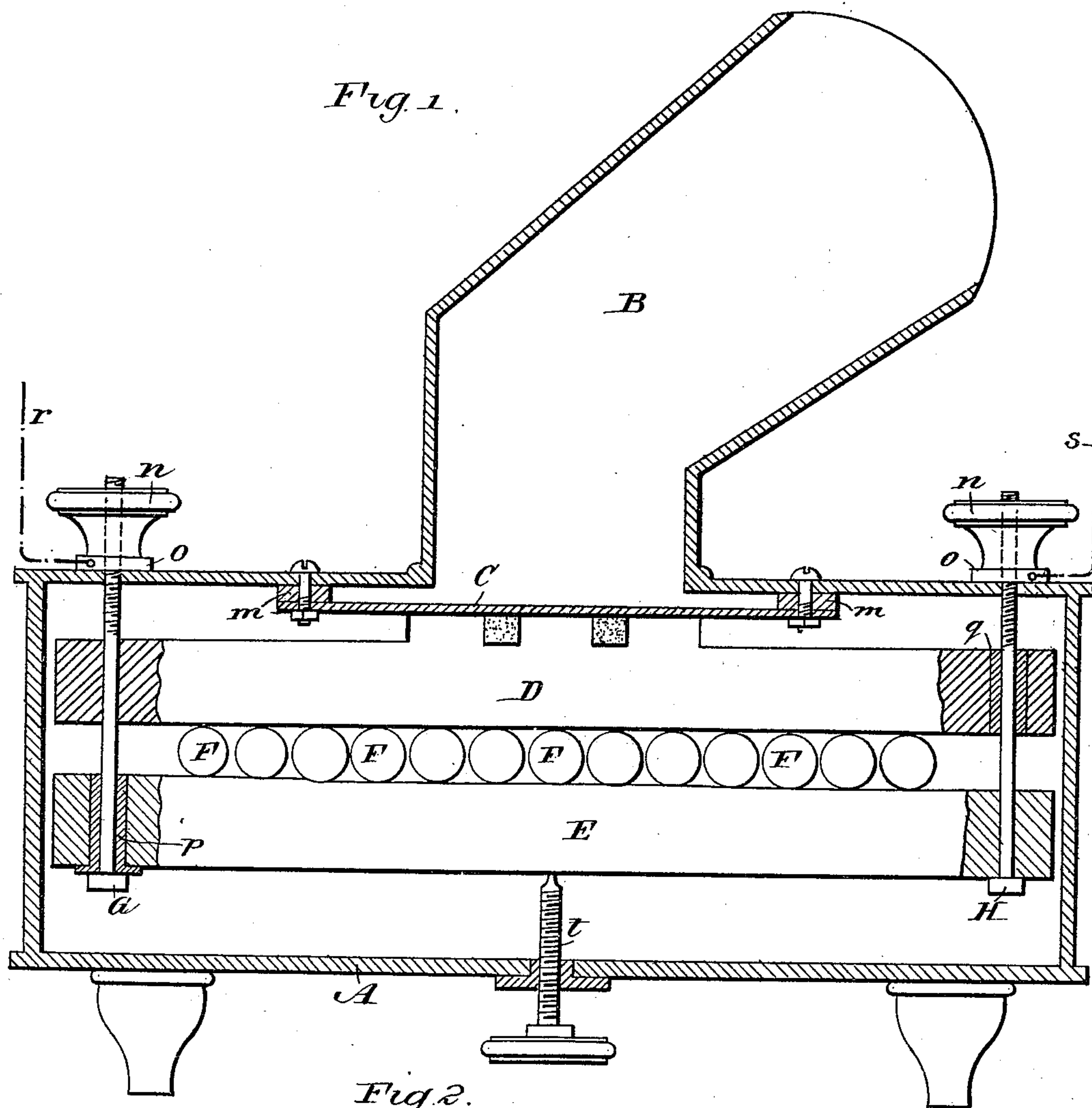


(No Model.)

E. NORIEGA.
MICROPHONE.

No. 481,050.

Patented Aug. 16, 1892.



WITNESSES:
Paul J. J. J.
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

ELOY NORIEGA, OF MEXICO, MEXICO.

MICROPHONE.

SPECIFICATION forming part of Letters Patent No. 481,050, dated August 16, 1892.

Application filed May 7, 1892. Serial No. 432,199. (No model.)

To all whom it may concern:

Be it known that I, ELOY NORIEGA, of Mexico, Mexico, have invented a new and Improved Microphone, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a vertical transverse section of a microphone constructed according to my improvement, and Fig. 2 is a transverse section of a modification of the same.

Similar letters of reference indicate corresponding parts in both views.

The object of my invention is to construct a microphone which will faithfully transmit speech and which will not require readjustment.

The invention consists in the combination and arrangement of parts, as hereinafter fully described, and pointed out in the claim.

The casing A is of insulating material, made, preferably, in cylindrical form and provided at the center of the top with a mouth-piece B. To the inner surface of the top of the casing is clamped a diaphragm C, with an intervening ring m.

In the casing A are placed carbon plates D E, between which are arranged carbon cylinders F. The plates D E are suspended from the top of the casing by bolts G H, provided with milled nuts n, which bear upon washers o, resting on the top of the casing A. The hole in the carbon plate E, through which the bolt G passes, is furnished with an insulating-lining p, and the hole in the carbon plate D, through which the bolt H passes, is furnished with an insulating-lining q. The washers o are connected with the local telephone-wires r s.

In the bottom of the casing A is inserted

an adjusting-screw t, which presses against the center of the carbon plate E and tends to force the carbon plates E D and the cylinders F in the direction of the diaphragm C. Sounds uttered in the mouthpiece B vibrate the diaphragm C, and every downward motion of the diaphragm increases the pressure of the carbon plate D upon the carbon cylinders F and of the latter upon the carbon plate E, thereby augmenting the conductivity of the microphone; and when the diaphragm C moves in the opposite direction the opposite effect is produced.

In the modification shown in Fig. 2 the diaphragm C', which is made of carbon, is suspended from the diaphragm-casing in the manner already described, and the plate E', of carbon, is suspended from the front of the casing by bolts in the same manner as shown in Fig. 1, and between the carbon diaphragm C' and the carbon plate E' are placed carbon filaments F'. The primary circuit-wires are connected with the carbon diaphragm C' and with the carbon plate E', and the conductivity of the circuit is changed by the alternate compression and expansion of the body of carbon filaments F'.

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

In a microphone, the combination of a vibratory carbon plate, a fixed carbon plate, and a mass of carbon filaments placed between the fixed and vibratory carbon plates, substantially as specified.

ELOY NORIEGA.

Witnesses:

RICHARD GUENTHER,
F. E. TRAINER.