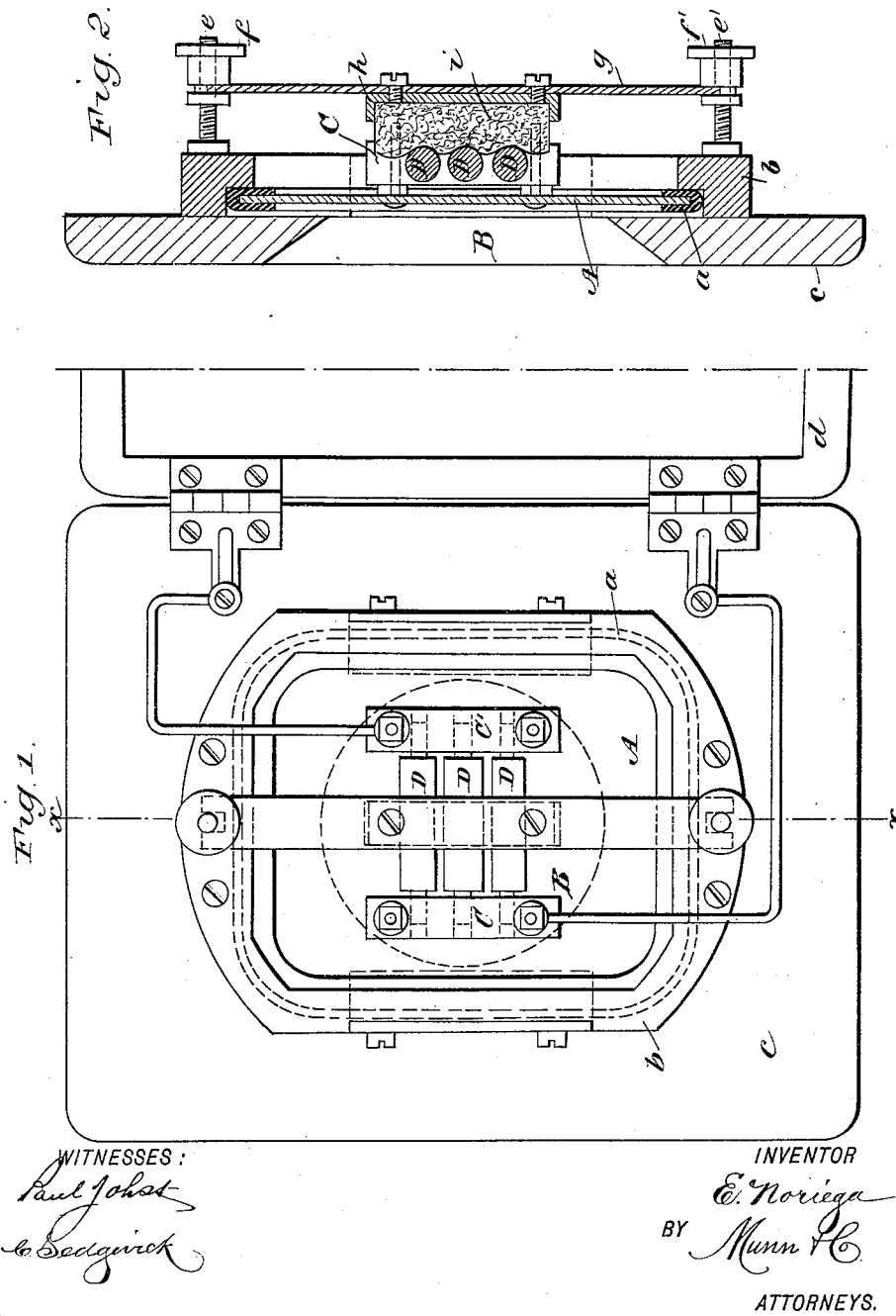


(No Model.)

E. NORIEGA.
MICROPHONE.

No. 481,051.

Patented Aug. 16, 1892.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ELOY NORIEGA, OF MEXICO, MEXICO.

MICROPHONE.

SPECIFICATION forming part of Letters Patent No. 481,051, dated August 16, 1892.

Application filed May 7, 1892. Serial No. 432,200. (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 rear elevation of my improved microphone, and Fig. 2 is a vertical transverse section taken on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts in both views.

The object of my invention is to provide a simple and efficient microphone for the transmission of articulate speech, in which delicate adjustments will be avoided and which will not be affected by the changing of temperature or atmospheric conditions.

My invention consists in a diaphragm of wood or analogous material, with the edges bound with elastic rubber binding, perforated carbon blocks secured to the diaphragm, carbon cylinders inserted in the perforations of the blocks, a pressure-spring for holding the cylinders against the sides of the apertures in the blocks, and a body of fibrous absorbent material interposed between the spring and the carbon cylinders, all as will be hereinafter more fully described.

The diaphragm *A* is preferably made of wood, and its edges are inclosed in an elastic rubber binding *a*, and the said diaphragm is inclosed in a metallic frame *b*, attached to the door *c* of the transmitter-box *d*. In the door *c* is formed the aperture *B*, through which sounds pass to the diaphragm *A*.

To the diaphragm *A* are secured perforated carbon blocks *C C'*, in the apertures of which are inserted the tenons of the carbon cylinders *D*. One of the primary circuit-wires is

connected with the carbon block *C* and the other with the carbon block *C'*. To the back of the diaphragm-cell are attached studs *e e'*, provided with adjusting-nuts *f f'*, which are grooved circumferentially to receive the forked ends of the spring *g*. To the spring *g* is attached a cup *h*, in which is inserted a body *i* of elastic absorbent fibrous material, which presses against the carbon cylinders *D* and serves as a damper to control the vibrations of the cylinders; also to absorb moisture from the cylinders and the air in their vicinity. The pressure of the fibrous material is varied by turning the nuts *e e'*.

The varying of the conductivity of the instrument produces electrical pulsations in the primary telephone-circuit, which induces currents in the secondary wire of the induction-coil of the line-circuit, which, entering the receiving-telephone, represent the sounds uttered against the diaphragm *A*.

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

In a microphone, the combination of the diaphragm *A*, formed of wood or analogous material, the perforated carbon blocks *C C'*, attached to the diaphragm, the carbon cylinders *D*, having their ends inserted in the perforated carbon blocks, the adjustable spring *g*, the cup *h*, attached to the spring, and a body *i*, of fibrous material, inserted in the cup *h* and bearing against the carbon cylinders *D*, substantially as specified.

ELOY NORIEGA.

Witnesses:

RICHARD GUENTHER,
F. E. TRAINER.