

(No Model.)

G. H. E. RICKE.
MECHANICAL TELEPHONE.

No. 496,137.

Patented Apr. 25, 1893.

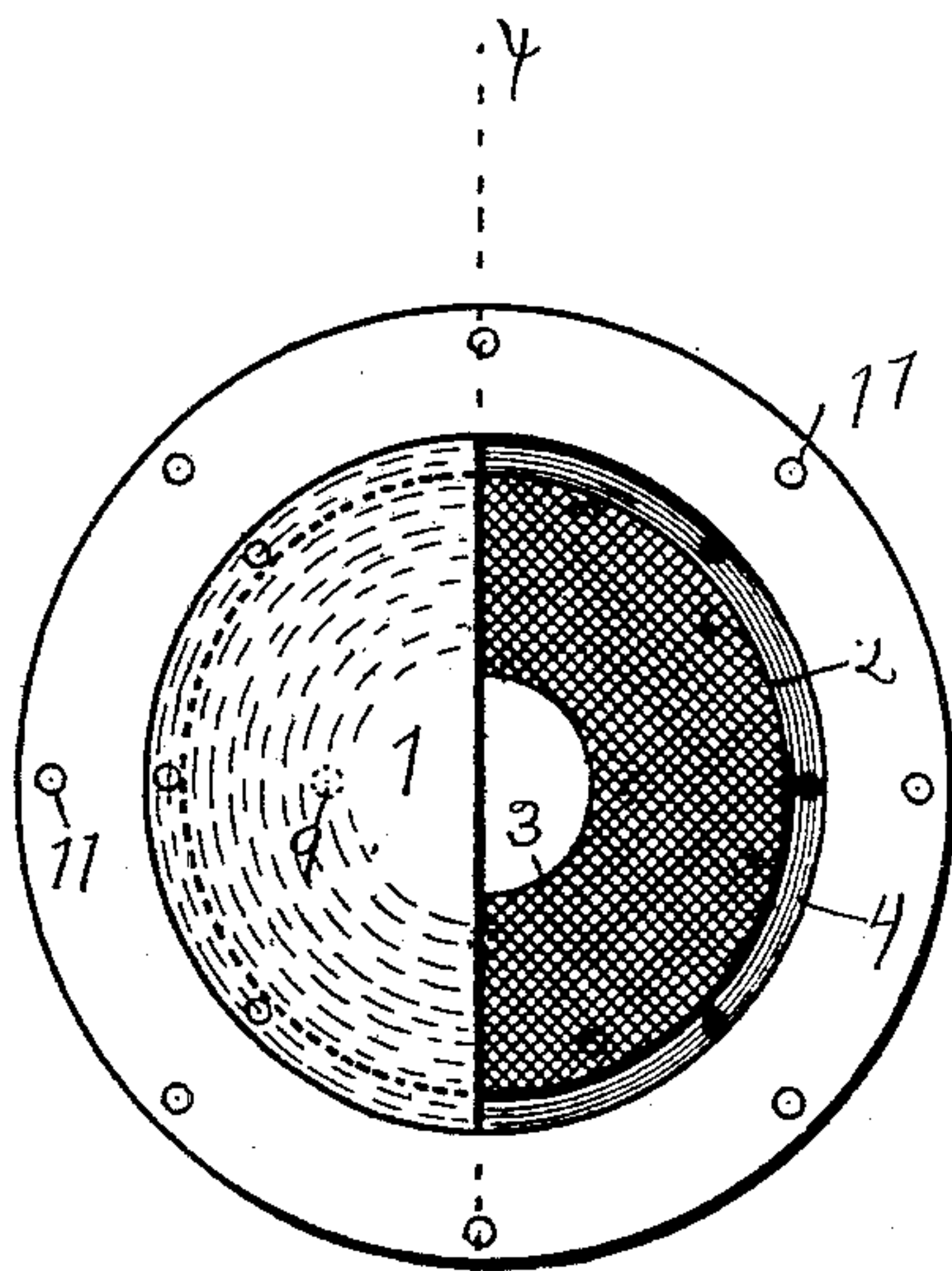


Fig. 1.

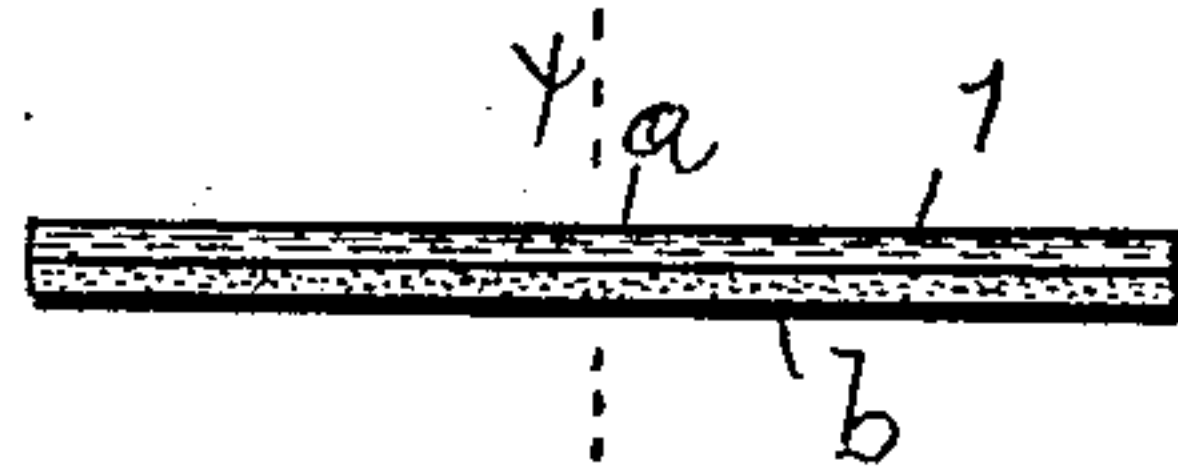


Fig. 2.

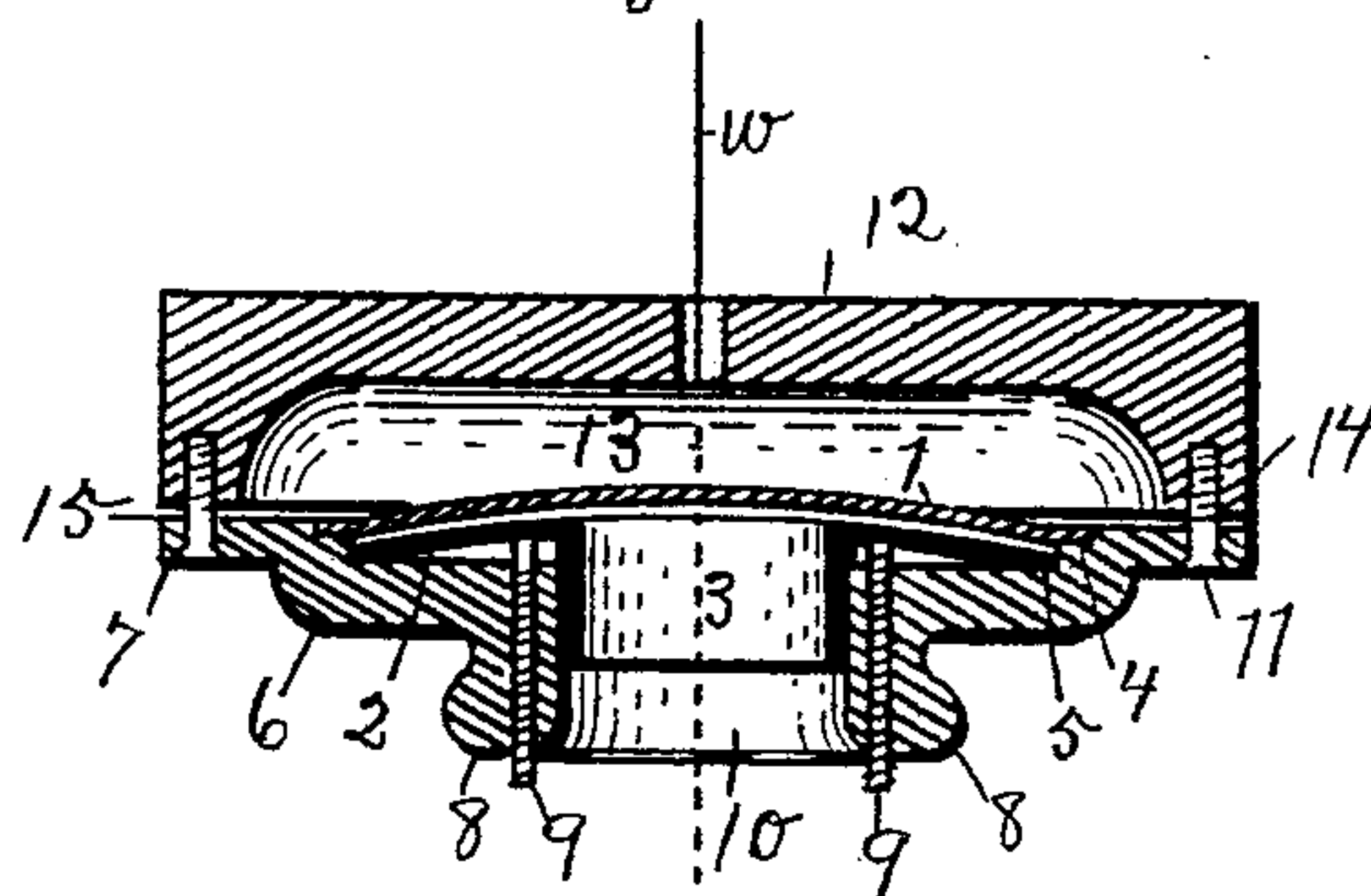


Fig. 3.

Witnesses.
Charles P. Hoins.
John A. Ringold

Inventor
George H. E. Ricke,
By E. P. Robbins,
att'y

UNITED STATES PATENT OFFICE.

GEORGE H. E. RICKE, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO
JOHN A. RINGOLD, OF SAME PLACE.

MECHANICAL TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 496,137, dated April 25, 1893.

Application filed April 15, 1891. Serial No. 389,106. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. E. RICKE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Mechanical Telephones; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in mechanical telephones.

The object of my invention is to devise a mechanical telephone which may be adjusted to accommodate variation in position of the sounding membrane.

Figure 1 is a front view of the telephone, showing interior construction. Fig. 2 is a mid sectional view of an improved sounding membrane. Fig. 3 is a sectional view along the plane $x-x$, Fig. 1.

The same numbers and letters refer to the same parts in different figures.

1 is the sounding membrane, 2 an adjustable secondary membrane parallel and adjacent the sounding membrane, 10 the mouth-piece or opening, 12 the telephone box, and 6 the box front. The body of the box 12 is adapted to be secured against and to a wall, and is hollowed out at 13 to form a resonant chamber. The parts 6 and 12 have plain contact surfaces along a central plane and are connected together by means of screws 11. A disk device 2 having a tubular prolongation 3 adapted to fit and slide in the hole 10 of the part 6 is made of suitable insulating material, and secured in a suitable manner, as by screws or tacks, at its edges; the edges being confined within the groove 5 in the part 6. The sounding membrane 1 has its edges secured in another groove 4 so that its edges will extend exterior to those of the disk 2 and be separated from the latter disk sufficiently for vibration and an intervening air space, as indicated by the white

space between the disks 1 and 2. The edges of the sounding membrane are secured by screws or tacks also.

9 are screws passed through the part 6 and arranged to press against the front side of the disk 2, as shown in Fig. 3, by which the disk 2 may be adjusted axially of the box.

With previous mechanical telephones the tension on the center of the membrane 1 of the attached wire tends to increase the concavity of that membrane and, consequently, the space between that membrane and the adjacent inner face of the box. By means of the adjustable disk 2 and the screws 9 the disk 2 may be moved toward the membrane 1 as the latter varies in concavity and thus have a constant and desirable space between the two disks. The parts 6 and 12 are shown slightly separated in order that the sound may be heard in the room in which the telephone is placed. By clamping the parts 6 and 12 together no sound will be heard in the room.

The sounding membrane 1 is made of two similar disks a and b of wood cemented together with the grain running at right angles, as shown in Fig. 2, which is a mid sectional view of a membrane. Poplar and birch wood are preferred.

I claim—

1. In a mechanical telephone, the combination of a box formed in two parts suitably secured together, a sounding membrane, and an adjustable secondary membrane held stationary adjacent the sounding membrane; substantially as set forth.

2. In a mechanical telephone, the combination of a box formed in two parts suitably secured together, a sounding membrane, and an adjustable secondary membrane of insulating material and held stationary adjacent the sounding membrane; substantially as set forth.

3. In a mechanical telephone, the combination of a box formed in two parts suitably secured together, a sounding membrane, and

screws held in the body of the box and arranged to adjust the position of the secondary membrane; substantially as set forth.

4. In a mechanical telephone, the combination of a box formed in two parts suitably secured together, a sounding membrane, and an adjustable secondary membrane having a central tubular extension adapted to fit and slide in the mouthpiece or opening of the

telephone box and held stationary adjacent to the sounding membrane; substantially as set forth.

In testimony whereof I now affix my signature in presence of two witnesses.

GEORGE H. E. RICKE.

Witnesses:

EDWARD P. ROBBINS,
CHARLES P. CORNS.