No. 825,635. PATENTED JULY 10, 1906.

E. C. BREWER.

TELEPHONE TRANSMITTER.

APPLICATION FILED JAN. 19, 1906.

Fig. I.

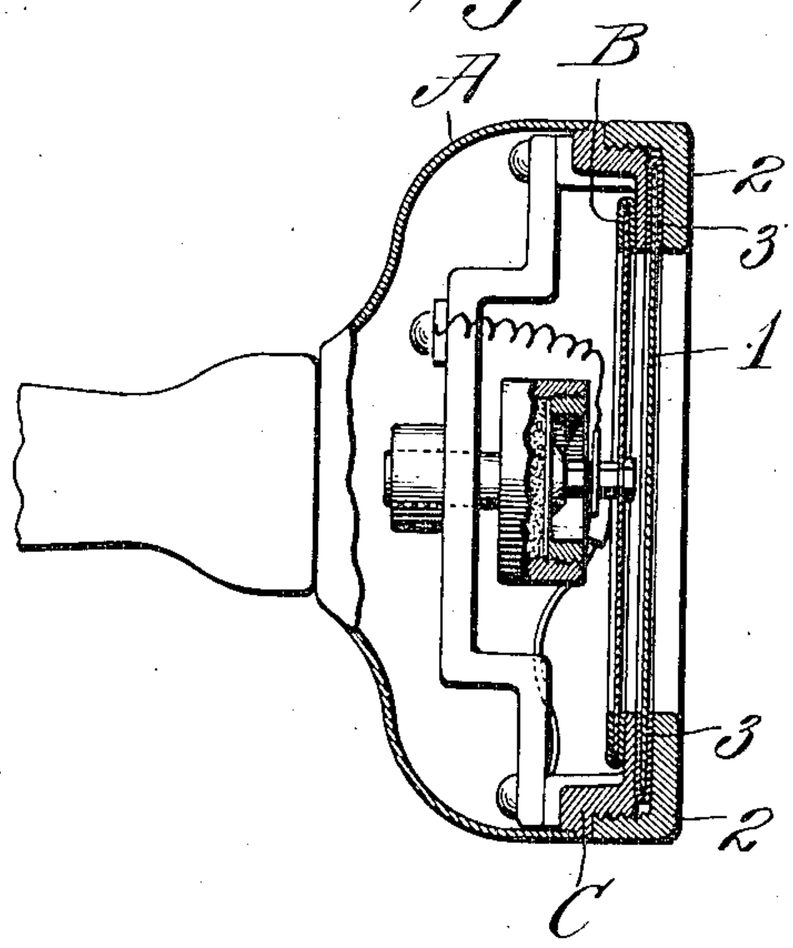


Fig. II.

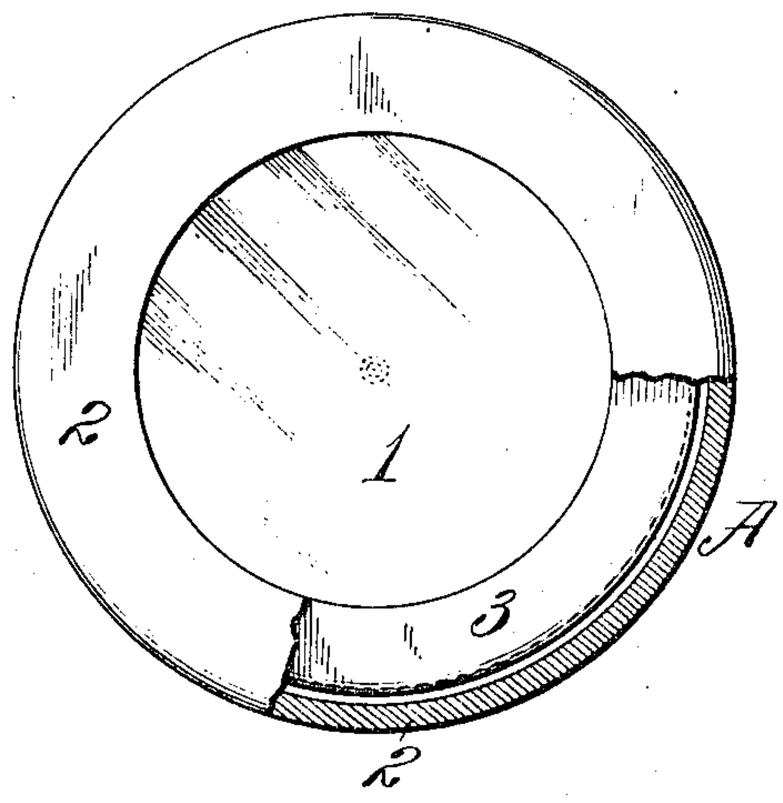
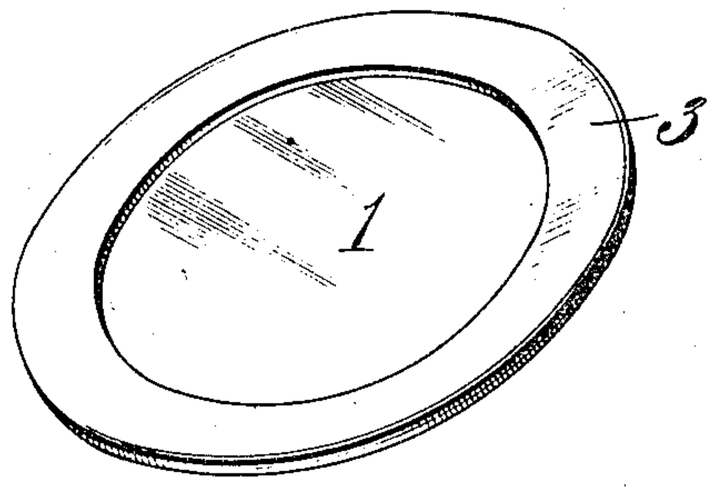


Fig. III.



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UNITED STATES PATENT OFFICE.

EVERETT C. BREWER, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO WILLIAM H. NOLKER, OF ST. LOUIS, MISSOURI.

TELEPHONE-TRANSMITTER.

No. 825,635. Specification of Letters Patent. Patented July 10, 1906.

Application filed January 19, 1906. Serial No. 296,782.

To all whom it may concern:

Be it known that I, EVERETT C. BREWER, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Telephone-Transmitters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the provision of means in a telephone-transmitter whereby germ-laden moisture from the breath of diseased persons using a telephone may be prevented from lodging in the transmitter, the improvement consisting, essentially, in furnishing a seal for the exposed portion of the transmitter in front of the usual diaphragm and providing against the existence of any cavity in which germs may lodge and from which they cannot be readily removed.

Figure I is a section of a telephone-transmitter, showing my invention applied thereto. Fig. II is a view, partly in front elevation and partly in cross-section, of the transmitter with my sealing member located therein. Fig. III is a perspective view of the sealing member.

A designates the casing of a telephone-transmitter, which contains the usual diaphragm B, its seating-ring C, and other appurtenances of a transmitter, for which no invention is herein claimed.

1 designates a secondary diaphragm that is placed in front of the main diaphragm B, but spaced apart therefrom to provide an air-chamber between the two diaphragms in order that vibration established in the secondary diaphragm by waves from the human voice may be imparted to the main diaphragm. The secondary diaphragm is preferably held in position by a clamp-ring 2, having a rearwardly-extending flange interiorly screw-threaded to engage a screw-thread on the exterior of the seat-ring that bears against the main diaphragm.

3 is a packing-band, preferably of rubber, that is fitted to the secondary diaphragm and which is adapted to be clamped between the clamp-ring 2 and the main-diaphragm seat-ring C, this packing-band being so located that it extends to the edge of the aperture in the clamp-ring 2 to avoid the existence of any cavity between said ring and the secondary diaphragm in which moisture may lodge. The edge of the aperture of the clamp-ring may therefore be readily cleaned from time to time. As there is no inaccessible cavity into which moisture from the breath may gain entrance, the transmitter is rendered of a thoroughly sanitary nature.

The secondary or sealing diaphragm is of any suitable impervious flexible material capable of preventing the passage of moisture therethrough—such as mica, celluloid, metal or alloys of metals that are susceptible of vibration under the waves of sound of the human voice—and said secondary diaphragm, while acting as a sealing member for the transmitter, does not detract from the efficiency of the instrument in which it is present. This absence of detraction is due to the secondary diaphragm serving as an initial sound-wave-receiving member and by its vibration causing similar vibration of the main diaphragm corresponding to that which would occur if the main diaphragm was used alone.

I claim as my invention—

1. In a telephone-transmitter, the combination of a casing, a main diaphragm within said casing, a seat-ring against which said main diaphragm rests, a clamp-ring fitted to said seat-ring, and a secondary diaphragm located between said clamp-ring and seat-ring.

2. In a telephone-transmitter, the combination of a casing, a main diaphragm within said casing, a seat-ring against which said main diaphragm rests, a clamp-ring fitted to said seat-ring, a secondary diaphragm located between said clamp-ring and seat-ring, and a packing-band surrounding said secondary diaphragm and held between said seat-ring and clamp-ring.

EVERETT C. BREWER.

In presence of—
E. S. KNIGHT,
NELLIE V. ALEXANDER.