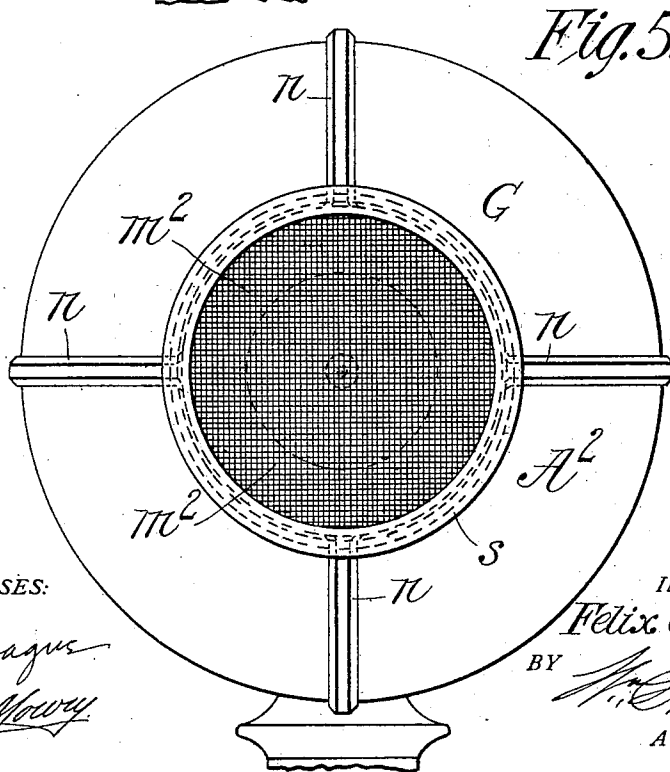
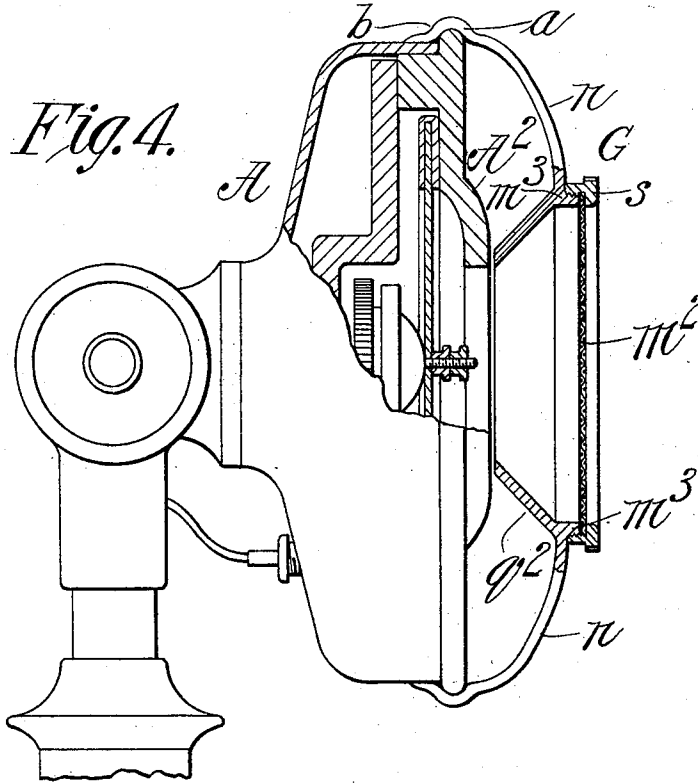


977,619.

F. GOTTSCHALK.
TELEPHONE TRANSMITTER.
APPLICATION FILED FEB. 12, 1910.

Patented Dec. 6, 1910.

2 SHEETS—SHEET 2.



WITNESSES:

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TELEPHONE-TRANSMITTER.

977,619.

Specification of Letters Patent.

Patented Dec. 6, 1910.

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To all whom it may concern:

Be it known that I, FELIX GOTTSCHALK, a citizen of the United States of America, and resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Telephone-Transmitters, of which the following is a full, clear, and exact description.

10 The object of this invention is to improve a telephone transmitter of the Bell or other analagous type and especially with respect to arrangements and provisions therein and therefor for rendering the instrument more
15 sanitary than one provided with the usual forwardly extending and flaring mouth piece which is undeniably a collector of dirt, and germs carried therein by the moisture of the breath and otherwise.
20 In my endeavors to produce a sanitary and efficiently operative telephone transmitter in which the black rubber or otherwise constituted forwardly projecting funnel-shaped mouth-piece is excluded, I have
25 employed, in an interposed relation between the resistance cup and the circular aperture in the front of the transmitter casing, a forwardly flaring cup-shaped shell receiving the impact and for serving as a medium
30 for carrying the sound wave vibrations for operative effect upon the front electrode; and as a means for the retention of the forwardly flaring cup-shaped shell in its place in the instrument, the same has been formed
35 with an aperture through its back or base and engaged about a screw threaded stud which is supported by and forwardly projected from the front electrode, the confining nut being screwed on the stud against the
40 back of the shell, and a substantially conical member has also been provided to inclose and conceal the nut; and a telephone transmitter of this description is illustrated, described and claimed in Letters Patent of
45 the United States about to be issued to me under date of February 22nd, 1910, No. 950,229 to which reference may be had as an example merely of a form of telephone transmitter in conjunction with which the
50 guard, constituting the present invention

may be used, it being, however, clearly understood that such guard is available on transmitters otherwise than like that referred to in my patent, and, such, for instance, as the ordinary Bell transmitter at this time in very extensive use, in which case my guard becomes a substitute for the forwardly flaring mouth piece.

The present invention, therefore, especially includes improved means which without interfering in any way with the speech reproducing capabilities of the transmitter will serve as a guard to effectually prevent the tampering by malicious or inconsiderate persons with the devices in the instrument requiring to be more or less delicately adjusted, such as the diaphragm and parts intimately combined therewith or appurtenant thereto. And the improved guard, in which this invention resides, is fully and clearly described in conjunction with the accompanying drawings and set forth in the claims.

In the drawings:—Figure 1 is substantially a central sectional view on a somewhat enlarged scale, from front to rear, through a telephone transmitter with the present improvements embodied therein. Fig. 2 is a front elevation of the instrument. Fig. 3 is a front elevation of the guard for the apertured front of the instrument, shown as modified in design or detail but with no departure in any essential respect from that shown in the previous figures. Fig. 4 is a side elevation with parts in section of the ordinary Bell transmitter with the front guard therefor represented as of a construction somewhat modified from the one shown in Fig. 1. Fig. 5 is a front elevation of Fig. 4.

Similar characters of reference indicate corresponding parts in all of the views.

In the drawings, A represents the rear portion of the casing of the transmitter, and A² the front portion of the casing, the same being partially telescoped by the part A and connected by the screws *a* which have their location behind the annular bead or peripheral rib *b*.

B represents the resistance cup supported by the bridge C, and D represents the dia-

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phragm located behind the front wall of the casing, through which wall is the central aperture d .

g represents a screw threaded stud having an anchorage or supporting engagement in the front electrode e provided in the resistance cup B and the diaphragm D which is centrally perforated is engaged about the stud as is also the back or base portion of the shell F which is of a forwardly opening cup or dish shape,—the back of this shell being, of course, also perforated to permit of the projection therethrough of the stud.

One or more locking nuts are provided in screw engagement on the stud for clamping the shell F to the diaphragm and both the shell and the diaphragm to proximity with, or contact against the electrode e ; and the forward end of the stud and the nut or nuts h are inclosed and concealed by an approximately conical shaped chambered member i , and all more or less similar to arrangements of the corresponding parts set forth in my aforementioned Letters Patent of Feb. 22nd, 1910, No. 950,229.

G represents the guard secured in a firm and stable manner on the front of the instrument and serving as a means, most especially, for preventing a person tampering with the securing and adjusting devices for the cup shaped shell combined with the diaphragm, or with the diaphragm however constituted and whether by a single element or associated parts. As represented in Figs. 1 and 2, this guard consists of a centralized foraminous member m ,—the perforations m^2 being comparatively large or small as may be elected,—and, rearwardly and radially extended therefrom, supporting arms n of suitable number, and preferably equi-distant from each other, said arms at their return bent extremities being formed with offsets, as at o to engage about and embrace the peripheral beads b of the casing; and said arms at their extremities as clearly represented in Fig. 1, are formed with eyes or perforations p for the engagement therethrough of confining screws, which may be the same screws a as unite the separable sections of the transmitter casing. This guard, moreover, may have as a part or appurtenance thereof a portion or portions indicated at q which extends from the rear of the foraminous disk shaped body rearwardly toward the front wall of the transmitter and is effective to defeat the attempts of a person to introduce any long thin object into the speech entrance opening in the front of the instrument. This additional guard constituting provision q may be in the form of a plurality of rods or arms in separated relations, or it may be constituted as designed to be represented in Fig. 4, by a rearwardly projecting annular wall q^2 which terminates in proximity to

the margin of the speech opening d in the front of the casing.

In Fig. 4 the radially and rearwardly extending supporting arms for the foraminous member are represented as having the offsets at their extremities of such form and relation to each other as to permit the guard to be sprung to a snap-catch engagement with the beaded peripheral portion of the transmitter casing; and in Figs. 4 and 5 the foraminous portion of the guard is constituted by a disk shaped piece m^2 of gauze, or other material having fitness to the purpose, marginally confined between the ring frame m^3 supported by the arms n and the screw engaged confining ring s .

The front of the guard may be rendered suitably porous other than by the provision of a plate m having circular perforations, as shown in Figs. 1 and 2, or by the provision of a sheet of gauze or the like as described in conjunction with Figs. 4 and 5; and in Fig. 3, the circular plate constituting the front of the guard is shown as having a plurality of slits which in this instance are of arc shape and in concentric arrangement, although slits of other shape and arrangement may be practicably employed.

As will be manifest, a person of mechanical experience having a knowledge of the objects of this invention and the means substantially as described for its accomplishment may make many changes and modifications in the forms and details of construction of the parts which contribute to the production of the improved instrument without departing from the spirit of the invention or sacrificing the advantages thereof.

I claim:—

1. The combination with a telephone transmitter casing of a guard consisting of a centralized foraminous member, and radially and rearwardly extending supporting arms, for said member, having eye-formed extremities which are arranged to embrace the casing, and screws engaging through the eyes, and with the casing for the confinement of the guard on the instrument.

2. A telephone transmitter having an aperture in the front of its casing, with a diaphragm adjacent the aperture, and a guard comprising a centralized foraminous member having its location forward of said aperture, an outwardly and rearwardly extending arm by means of which said member is supported on the casing, and arms extending from the rear portion of the guard in a surrounding relation and in proximity to the apertured front of the casing.

3. A telephone transmitter having an aperture in the front of its casing and a diaphragm adjacent the aperture, and a guard comprising a centralized foraminous member having its location forward of said aperture, means for supporting it externally

on the casing, and an annular wall extending rearwardly from the front of the guard to proximity to the apertured front wall.

5 4. The combination with a telephone transmitter casing having an apertured front, and a diaphragm adjacent the aperture, of a guard supported on the front of the instrument and a plurality of arms terminating in proximity to the margin of

the aperture for preventing tampering with the diaphragm and exposed appurtenances thereof. 10

Signed by me at Springfield, Mass., in presence of two subscribing witnesses.

FELIX GOTTSCHALK.

Witnesses:

WM. S. BELLOWS,

G. R. DRISCOLL.