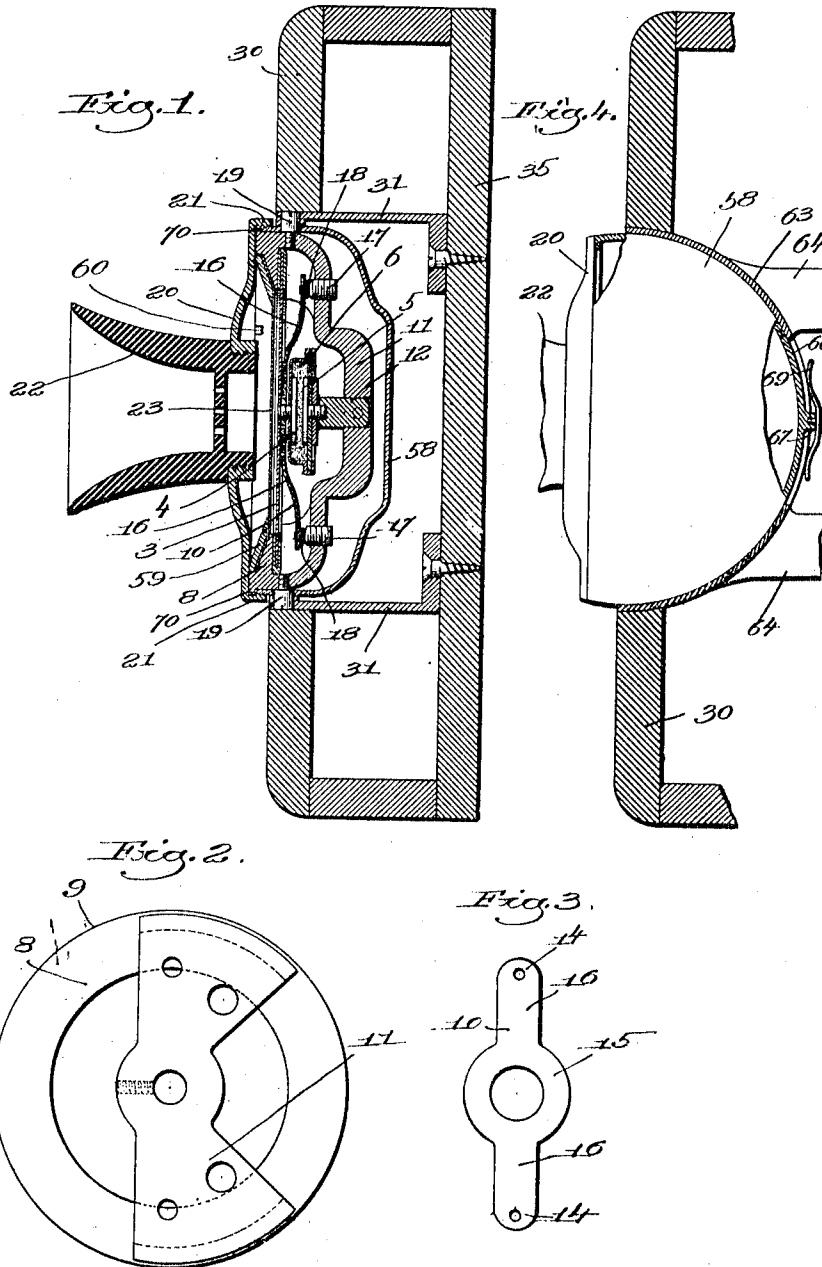


S. A. KOLTONSKI.
TELEPHONE TRANSMITTER.
APPLICATION FILED MAY 23, 1907.

990,275.

Patented Apr. 25, 1911.



Witnesses:
Fred. S. Grunhof.
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by *[Signature]*
Attys.

UNITED STATES PATENT OFFICE.

STANISLAW A. KOLTONSKI, OF BOSTON, MASSACHUSETTS

TELEPHONE-TRANSMITTER.

990,275.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed May 23, 1907. Serial No. 375,246.

To all whom it may concern:

Be it known that I, STANISLAW A. KOLTONSKI, a subject of the Czar of Russia, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Telephone-Transmitters, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention relates to telephone transmitters, and has for its object to improve the construction of the transmitter, all as more fully hereinafter described and then pointed out in the claims.

In the drawings Figure 1 is a horizontal sectional view through a transmitter embodying my invention; Fig. 2 is a detail of the diaphragm support and bridge; Fig. 3 is a view of the damper spring employed; Fig. 4 is a sectional view showing a modified form of the invention.

The transmitter herein shown comprises the usual sound-transmitting diaphragm 3, the electrode 4 connected thereto, the opposite or opposing electrode 5, and the variable resistance 6 interposed between said electrodes, said variable resistance being of any suitable character such as granulated carbon, and being contained in a carbon-receiving chamber of usual construction. These parts are or may be all as usually found in transmitters and form no part of my present invention.

The diaphragm 3 is supported upon the inner face of the flange 8 of the frame or body 9, and is held in position by means of a damper spring 10 which is of the shape shown in Fig. 3.

Rigidly secured to the frame 9 or integral therewith is the bridge 11 in which the insulated stem 12 of the electrode 5 is adjustably secured and against which the ends 14 of the damper spring rest. Said damper spring is shown as having the circular body 15 which surrounds the connection between the electrode 4 and the diaphragm 3 and bears against the central portion of the diaphragm, and the two arms 16 that are bent inwardly and rest against adjustable stops 17 carried by the bridge 11, said spring being suitably insulated from the stop as at 18.

As seen in Fig. 2 the bridge 11 is so placed on the frame 9 that the diaphragm 3 may be slipped into place from the left, the two

sides of the bridge being spaced substantially 180° apart on this side. The frame 9 with its connected bridge and the parts supported thereby are received within a casing 58 of any suitable construction and are held therein by screws 19. The frame 9 is in the form of an annular ring, as best seen in Fig. 2, and the open front of the frame is closed by a front plate 20 which carries the usual mouth-piece 22, said mouth-piece being either integral with the front plate or detachable therefrom as desired. This front plate 20 is shown as provided with a flange 21 which is screw-threaded to the casing 58 by reason of which construction said front plate can be readily removed from the casing. It will be noted that the sound-transmitting diaphragm rests against the inner face of the flange 8 and is held thereto by the damper spring and not in any way by the front plate 20. As a result the removal of the front plate does not in any way affect the diaphragm or other delicate parts of the instrument, and said front plate can be readily removed or replaced without danger of disturbing the delicately adjusted parts of the instrument. The frame 9 is preferably provided with the annular flange 70 which overlies the edge of the casing 58 and is clamped thereto by the front plate 20, as plainly seen in Fig. 1.

23 is an auxiliary diaphragm which is situated in front of the sound-transmitting diaphragm 3 and which is held in place by having its edges clamped between the flange 8 of the frame 9 and a clamping ring 59 which is held in place by the front plate 20. This clamping ring is preferably provided with a notch to receive a lug 60 on the frame, whereby the ring is held from turning when the front plate is screwed into place. By thus holding the ring 59 from turning, all danger of injuring the auxiliary diaphragm by the rubbing action of the ring against it as said ring is screwed in place is prevented.

The auxiliary or antiseptic diaphragm may be made of any suitable material, but preferably will be of celluloid or some other material which can be readily washed and which will not interfere in any way with the transmission of the sound vibrations to the diaphragm 3. Whenever the diaphragm 23 gets into an unsanitary condition it can be readily removed by removing the front plate 20 and clamping ring 59, and can then either

be washed or rendered antiseptic or discarded and a new diaphragm can be substituted therefor.

In the present embodiment of my invention the transmitter is pivotally mounted so that the mouth piece may be swung up or down as desired. In Fig. 1 the screws 19 are arranged to constitute trunnions on which the transmitter is pivotally mounted, and for this purpose said screws are provided with cylindrical heads which are received in bearings formed in brackets 31 that are secured to the back 35 of a box or casing on which the transmitter is mounted. 30 is the front of this box or casing, and where this construction is used said front will have an aperture therein large enough to receive the transmitter, and said front may be detachably secured to the back in any suitable way. Where this construction is used the transmitter is received within the box and stands substantially flush with the front thereof and it will be substantially flush in all adjusted positions.

In Fig. 4 I have shown another way of mounting my transmitter in accordance with my invention. This figure shows a vertical section through a box or housing for the transmitter, the front of the box being designated by 30. The casing 58 is made substantially hemispherical in shape and is received within a hemispherical support 63 which is secured to the back of the casing by suitable brackets 64. The hemispherical support 63 has a slot 66 therein through which projects a finger or tail-piece 67 extending from the casing 58. Secured to the end of the finger is a spring 69 which is wider than the slot and which bears against the back side of the support 63, said spring serving to yieldingly hold the casing 58 of the transmitter within the supporting member 63.

I have illustrated and described two embodiments only of my invention and have

not attempted to show all forms in which it may be embodied.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

1. In a telephone transmitter, the combination with an annular frame or support having a two-armed bridge integral therewith, the median line of both arms of the bridge being located on the same side of a diametrical line through said frame, of a diaphragm situated between the bridge and the frame, and a variable resistance supported partly by the bridge and partly by the diaphragm.

2. In a telephone transmitter, the combination with a frame or support, of a sound-transmitting diaphragm sustained thereby, an auxiliary diaphragm also sustained thereby, a non-rotatable clamping ring for clamping the auxiliary diaphragm in position, and a front plate 20 secured to the frame and operating to hold the clamping ring in place.

3. In a telephone transmitter, the combination with a frame having a bridge integral therewith, a diaphragm sustained by said frame and bridge, a casing inclosing the frame and bridge, and a front cover screwed to the casing and clamping the frame to the casing.

4. In a telephone transmitter, the combination with a frame having a bridge integral therewith, a diaphragm sustained thereby, a casing inclosing the frame, screws for securing the casing to the frame, said screws having projecting trunnion portions and brackets in which the trunnion portions of the screws are rotatably mounted.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

STANISLAW A. KOLTONSKI.

Witnesses:

LOUIS C. SMITH,
JOHN C. EDWARDS.