

L. E. GAGER.
SPEAKING TUBE ATTACHMENT.
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945,929.

Patented Jan. 11, 1910.

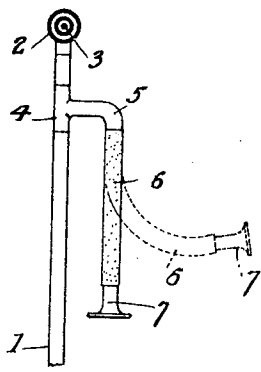


Fig. 1.

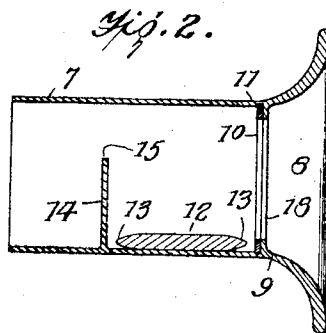


Fig. 2.

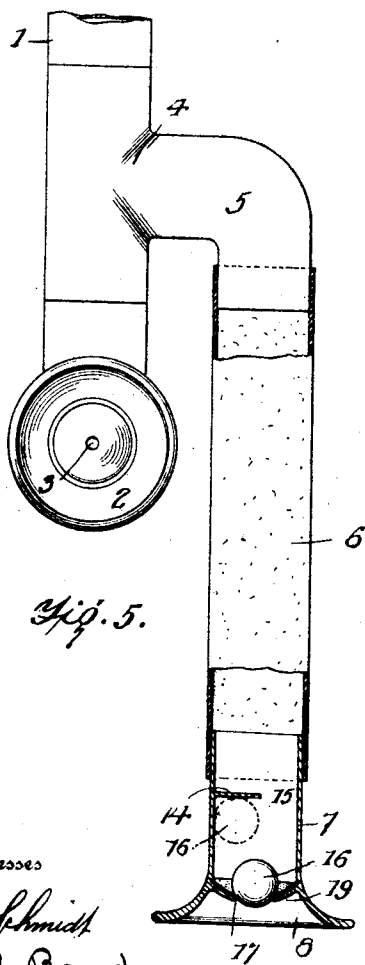


Fig. 3.

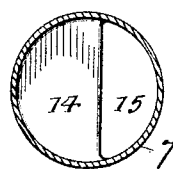


Fig. 4.

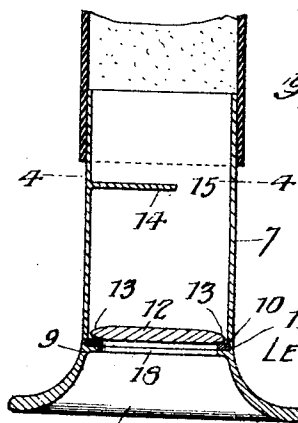
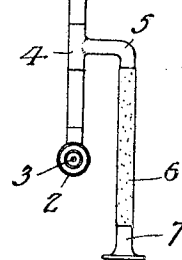


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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SPEAKING-TUBE ATTACHMENT.

945,929.

Specification of Letters Patent.

Patented Jan. 11, 1910.

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To all whom it may concern:

Be it known that I, LEE E. GAGER, a citizen of the United States of America, and resident of Mobile, in the county of Mobile and State of Alabama, have invented certain new and useful Improvements in Speaking-Tube Attachments, of which the following is a specification.

This invention relates to certain new and useful improvements in speaking tube attachments whereby a person may both speak and hear at the same time, obviating the necessity of moving the head to either speak or listen.

The present invention has for its objects among others to provide a simple and cheap attachment that can be readily applied to any form of speaking tube in a short time.

It is designed primarily for use upon vessels, and, as in this class of devices most of the tubes are made of gas or other iron pipe, my attachment, which comprises a tee nipple and elbow of iron pipe, may be made of any size required to fit any size of pipe which may be in use upon the boat.

The valve in the end of the ear piece is made in the form of a disk or ball and a seat or washer of felt, rubber or analogous material is provided against which the same falls when not in use, so as to prevent injury and avoid noise, while within the ear piece there is provided a semi-partition to prevent said disk or ball from falling back into the tube, said partition being seated just far enough back to allow the disk or ball to lie in a position so as not to affect the sound.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a diagrammatic view showing the application of the invention as, for instance, on a boat to provide communication between the pilot house and the engine room. Fig. 2 is an enlarged longitudinal detail through the ear piece. Fig. 3 is a similar view, showing the valve in its closed position. Fig. 4 is a cross section on the line 4—4 of Fig. 3. Fig. 5 is an enlarged elevation

with parts in section and portions broken away, showing a modified form of valve. 55

Like numerals of reference indicate like parts throughout the several views.

Referring to the drawings 1 designates a speaking tube provided at each end with a mouthpiece 2 of ordinary construction with the usual whistle 3, a detailed illustration and description of which is not necessary. 60

My improved attachment may be applied at any desired position, it being understood that it may be used in an ordinary dwelling, a store, a vessel or any other place. In the present instance, in Fig. 1 I have chosen to illustrate it as used aboard ship for communication between the pilot house and the engine room. 70

The attachment comprises a tee nipple 4 with an elbow 5 readily attachable to any portion of the pipe 1, the nipple being of course made according to the size and character of pipe to which it is to be applied. This elbow has connected therewith the flexible tube 6, the opposite end of which is connected with the ear piece, which latter comprises the metal tubular member 7 provided at its outer end with the ear piece 8, of any well-known or approved form of construction, except as now to be described. Within the mouthpiece is an annular flange 9 upon which is seated a ring or washer 10 of felt, rubber or analogous material, being retained in position within an annular groove 11, as seen clearly in Fig. 3. 85

As seen in Figs. 2, 3 and 4, 12 is a disk, preferably of copper, having its peripheral edge slightly rounded, as shown at 13, and which disk, when the ear piece is not in use, falls to its seat on the washer 10 by gravity, it being understood that normally, as when not in use, the flexible tube 6 hangs vertically, as indicated in Fig. 5 and in full lines in Fig. 1. Within the tube 7 at a distance from the washer 10 somewhat greater than the diameter of the disk 12, is a partition 14 which is substantially semi-circular, as seen best in Fig. 4, leaving a sufficient passage 15 for the sound. When the ear piece is in use, the tube is turned into a more or less horizontal position, as indicated by dotted lines in Fig. 1 and also in Fig. 2, whereupon the disk 12 falls into a position parallel with the length of the tube 7, as seen in 105

said Fig. 2, and, when in this position, it is out of the path of the sound through the passage 15 to the ear.

In Fig. 5 I have shown a construction analogous in all respects to that herein described, but, in lieu of the disk 12, I provide a ball 16 of rubber or analogous material which is adapted to close the opening 17 in the ear piece which is analogous to the opening 18 in the form shown in Fig. 3. When the attachment is not in use, the ball falls by gravity to its position on its seat and, when the attachment is turned into its horizontal position for use, the ball falls into the position indicated in dotted lines in Fig. 5, so as to uncover the opening 17, the ball then being shielded by the partition 17. In this form, the ball may seat upon a cushion 19 of felt, rubber or analogous material for the same purpose as the ring or washer in Fig. 3, although sometimes it may be found sufficient to depend upon the resiliency of the ball in seating itself to prevent noise.

Modifications in details may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim is:—

1. A speaking tube attachment comprising a tee nipple and an elbow, a flexible tube connected therewith, and an ear piece connected with said tube and having an opening with a seat, a gravitating closure within the same fitted to said seat and a semi-partition

upon one side of the ear piece between which and the seat said closure is retained.

2. A speaking tube attachment comprising a tee nipple and an elbow, a flexible tube connected therewith, an ear piece connected with said tube and having an opening with a seat, a gravitating closure within the same fitted to said seat, and a semi-partition between which and said seat the closure is movable, said semi-partition having a passage for the sound and the closure being shielded by said semi-partition when the closure is in open position.

3. A speaking tube attachment comprising a tee nipple and an elbow, a flexible tube having one end connected with said elbow, and an ear piece connected with the other end of said tube and comprising a tubular member having a semi-partition with passage and an opening with a valve seat, and a gravitating closure for said opening adapted to normally be seated upon said seat, and when the tube is turned into a horizontal position to automatically move away from the seat and be shielded by said semi-partition, there being an opening through the diaphragm for the passage of the sound.

Signed by me at Mobile, Alabama, this 9th day of April, 1909.

LEE EDGAR GAGER.

Witnesses:

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