

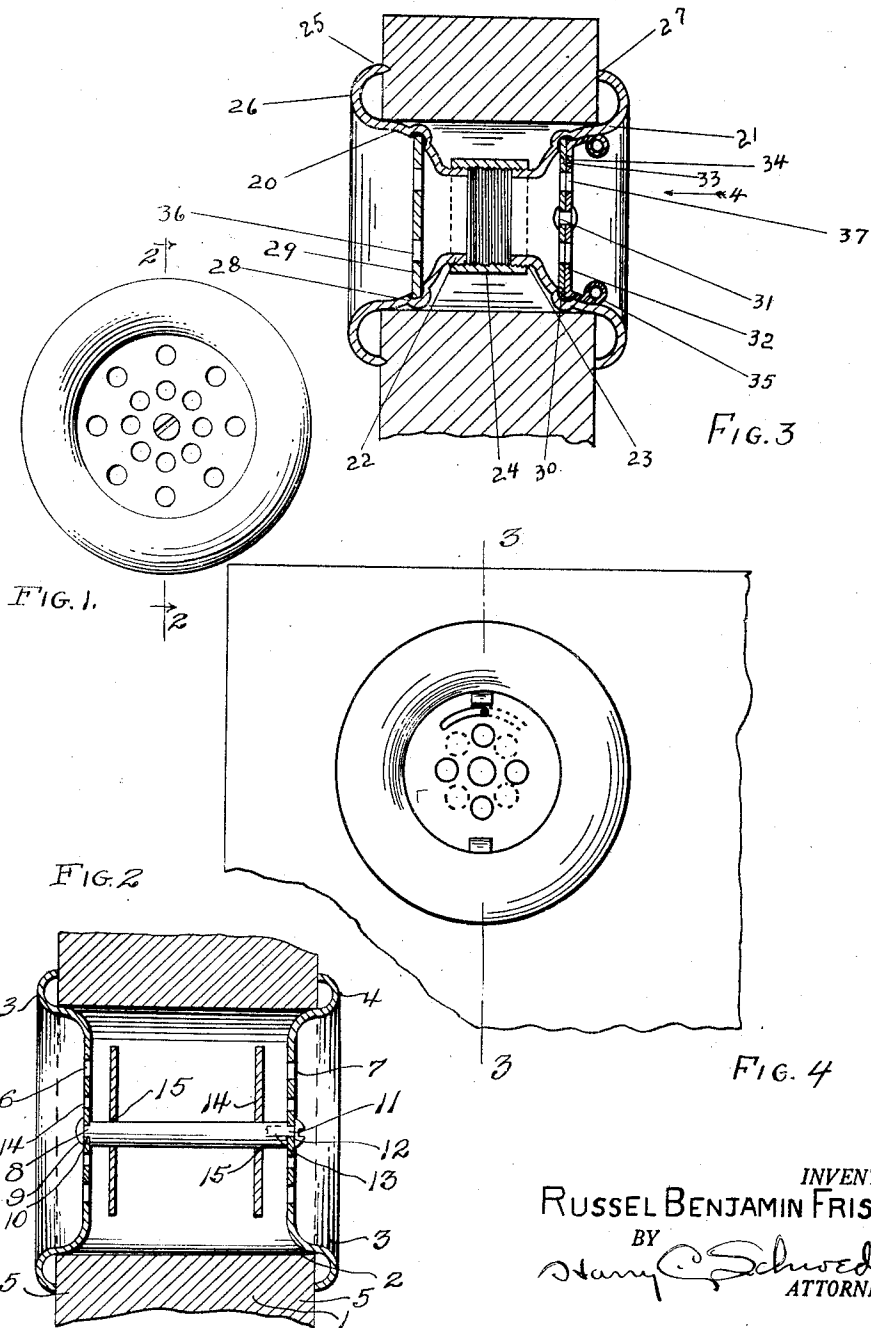
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DOOR PHONE

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DOOR PHONE.

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My invention relates to a door phone of the speaking tube type, the purpose being to allow a person to readily speak to a listener through a door panel or frame, but so designed that neither party can see through the door phone. An object of my invention is to provide a short speaking tube, which may be readily inserted in a hole bored in a panel or frame of a door adjacent the edge or in a cross bar at a convenient height to speak and listen through.

In my specific constructions a circular hole is bored through a door and the door phone, consisting of plates clamped at each side of the door, is secured in the hole or aperture.

This may be by a bolt type of construction or by threaded sleeves, the plates having apertures of small size to convey the sound of a person speaking. My door phone may be attached to an outside door of a house and cannot readily be removed by a person on the outside, and allows a person on the inside to ascertain who is outside before opening the door. In one type of construction a person on the inside can regulate the apertures in the plates so that they may see outside.

My invention will be more readily understood from the following specification and drawings in which:—

Figure 1 is a front inside elevation of the door phone, with the door omitted.

Figure 2 is a vertical section of Figure 1 on the line 2—2, illustrating the attachment to a door.

Figure 3 is a vertical section of Figure 4 on the line 3—3, illustrating a modification.

Figure 4 is an elevation of the door phone of Figure 3 in the direction of the arrow 4 viewing the inside.

In the construction shown in Figures 1 and 2, the door is designated by the numeral 1 and may be of any desired type, either of wood or metal; and has a bored hole or aperture 2 therethrough. Combined mouth and ear plates 3 and 4 are situated on opposite sides 5 of the door and have apertures 6 and 7 therethrough. On one of these plates, indicated as 3, I rigidly secure a rod or sleeve 8, which is shown as, held by a riveted end 9 on the outside of a central perforation 10 in the plate. The plate 4 has a central perforation 11 through which a screw 12 may be inserted, said screw having a threaded engagement 13

with the rod or sleeve 8. In this manner the outside mouth and ear plates may be tightly clamped together and will grip the opposite sides 5 of the door. In this manner these plates are clamped tight to the door and are held in proper adjusted position with respect to each other.

In order to prevent a person looking through the apertures 6 and 7 and also to form baffles to prevent draft from blowing through the door phone, I mount one or more baffle plates 14 of similar construction on the rod or sleeve 8. These are shown secured in position by having the perforations 15 fitting tight on the rod 8.

In the construction shown in Figures 3 and 4, the mouth and ear plates 20 and 21 are somewhat cone-shaped to form mouth pieces, and have threaded necks 22 and 23, the necks being threaded into a screw-threaded sleeve 24. The outside plate 20 has a number of prongs 25 to become embedded in the door when the inner plate 21 is screwed up tight. Each plate has a curved bead 26 and the edge 27 of the plate 21 may be turned on the surface of the door in tightening the plates in position.

Each plate has an annular groove 28 in which is secured a disk 29 in the outside plate 20, and a disk 30 in the inside plate 21, these being pressed in place before the door phone is assembled in the door. The disk 30 supports a central stud 31 on which is mounted an oscillatable disk 32, which is restricted in movement by a small indentation 33 from the back of the disk 30 engaging in a curved slot 34 in the oscillatable disk 32. The disk 32 may be turned, a short distance, by the finger grips 35, shown curved to fit the plate 21.

The disks 29 and 30 have a series of perforations 36, to allow sound to pass, and the oscillatable disk 32 has a series of similar perforations 37, which may be brought into registration with the perforations 36 of the inside disk 32.

The manner of assembling and using the door phone of Figures 3 and 4 is as follows:—The plates 20 and 21, with the disks 29 and 30 in place, are connected, from opposite sides of a door by screwing them into the sleeve 24. The disk 32 is normally positioned with its perforations 37 out of register with the perforations 36 of the fixed disk 30. By means of the finger grips 35 the perforations may be brought into regis-

ter; and the position and size of the perforations may be such that a person may readily look out to see who is outside.

Claims—

- 5 1. A door phone comprising in combination a pair of cone-shaped mouth and ear plates, a screw threaded connection for said plates and perforated discs held in the plates.
- 10 2. A door phone having a pair of fixed mouth and ear plates, means for holding the plates in an opening in a door, and a movable plate having apertures adapted to register with those of one of the mouth and
15 ear plates.
3. A door phone comprising a pair of substantially cone-shaped mouth and ear plates, annular grooves in said plates, fixed perforated discs secured in said grooves, a
20 threaded sleeve to secure said plates in position, and an adjustable perforated disc mounted on one of the fixed discs.
4. A door phone comprising a pair of mouthpieces adapted to be seated in an aper-

ture in a door, a sleeve positioned between 25 and engaging said mouthpieces to hold them together, and a pair of perforated discs seated in said mouthpieces and adapted to serve as combined mouth plates and ear
30 plates.

5. A door phone as specified in claim 4 wherein one of the mouthpieces is provided at its outer edge with teeth adapted to engage the surface of the door.

6. A device of the class described, com- 35 prising a pair of mouthpieces shaped to seat in a suitable aperture, each of said mouthpieces being provided with an annular groove on its inner surface and a rolled edge adapted to engage the rim of said aperture, 40 a perforated disc seated in each of said annular grooves, a movable perforated disk mounted on one of the fixed disks, and a sleeve positioned between and engaging with said mouthpieces to hold them in position 45 after the device has been installed.

In testimony whereof I affix my signature.
RUSSELL BENJAMIN FRISBEY.