

(No Model.)

G. H. PHELPS.
SPEAKING TUBE ATTACHMENT.

No. 360,469.

Patented Apr. 5, 1887.

Fig: 1

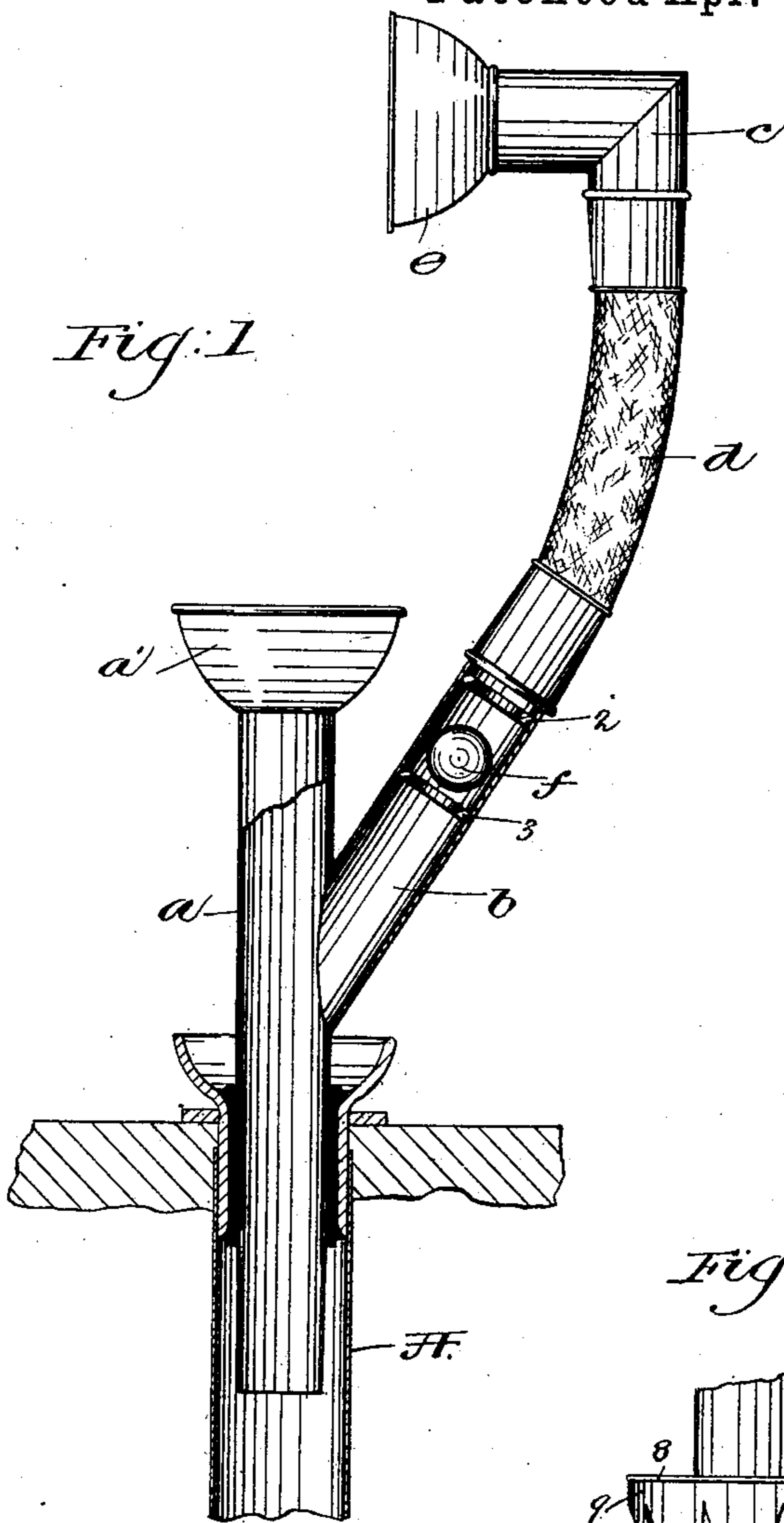


Fig: 2.

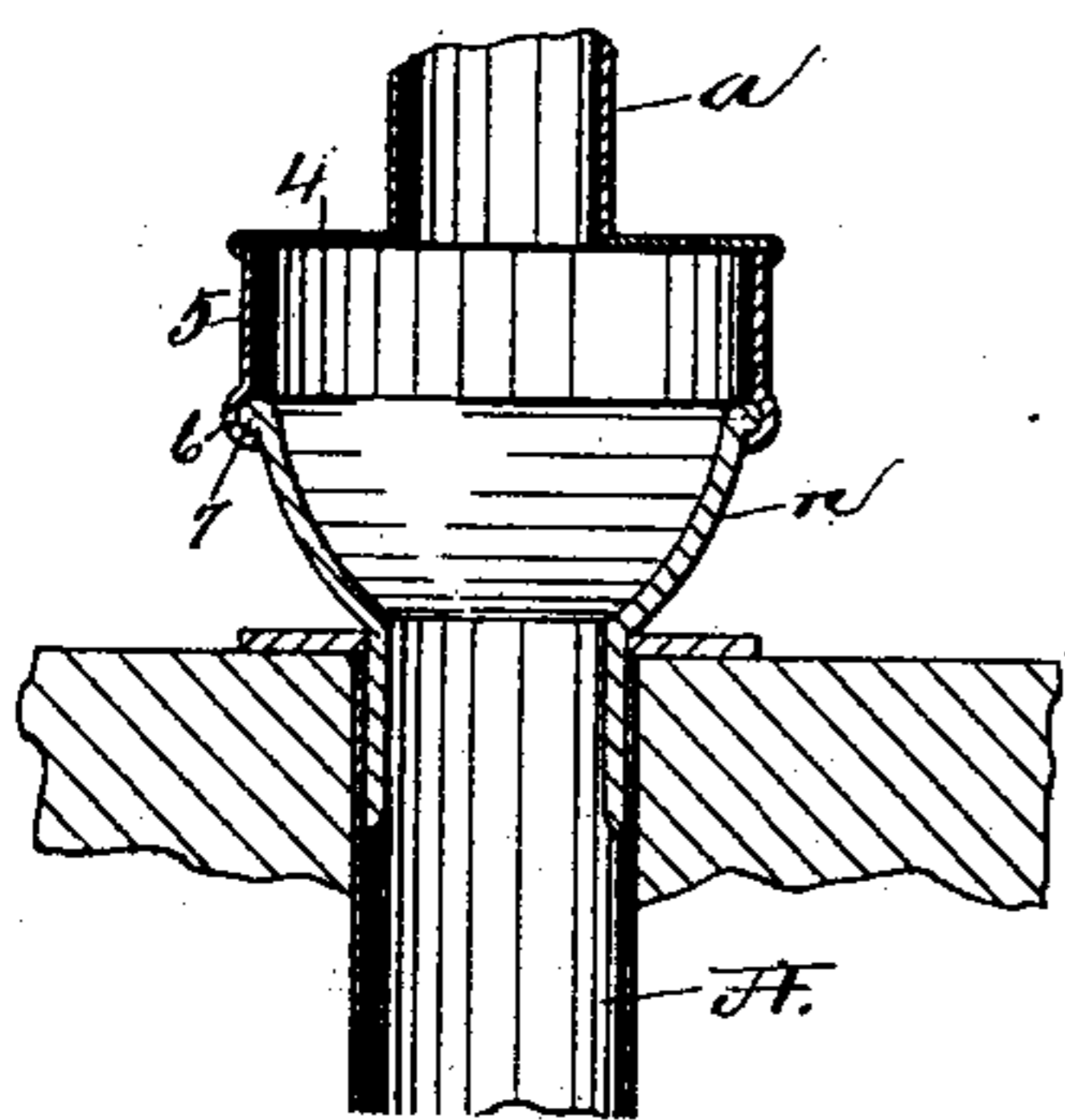
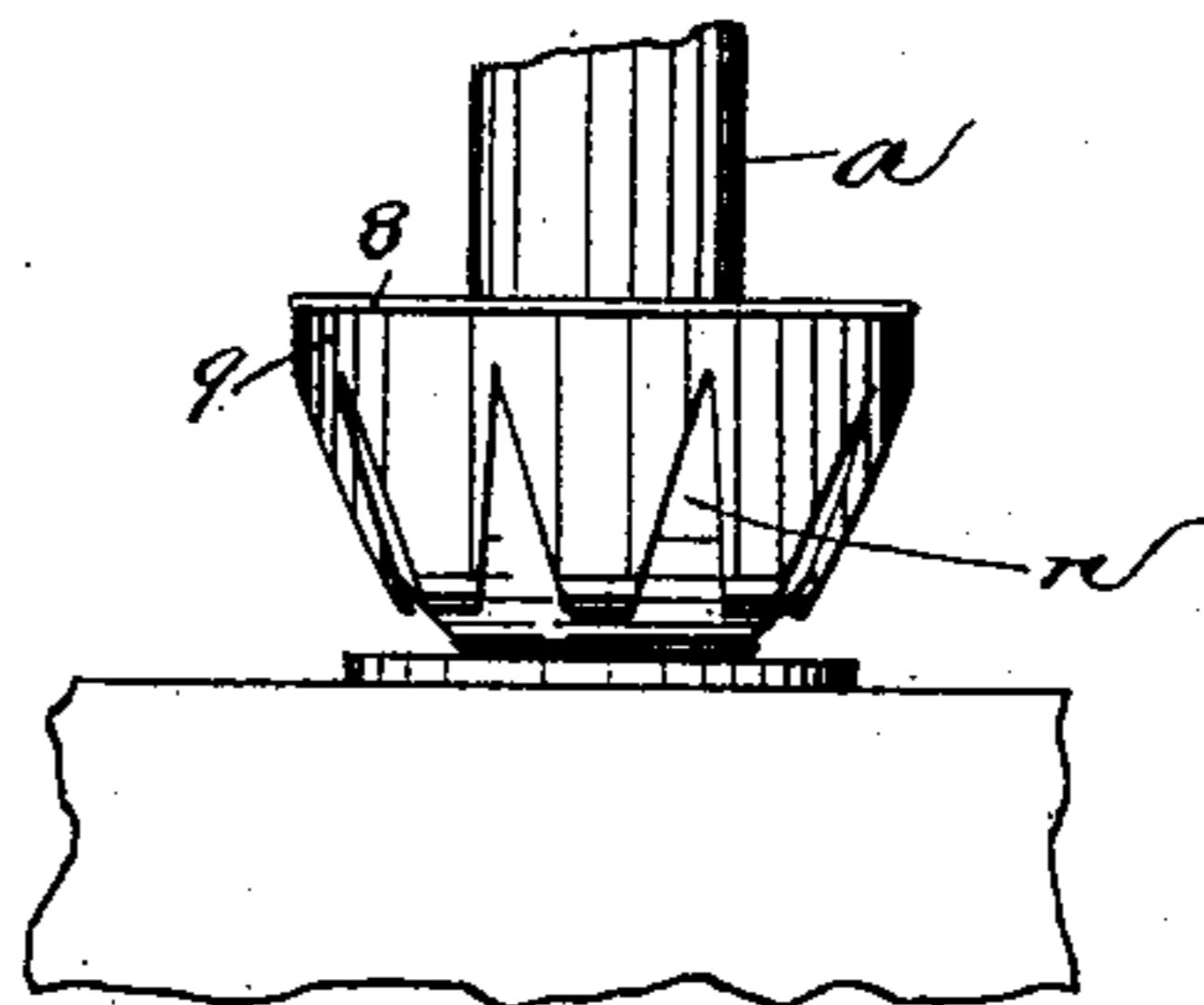


Fig: 3.



Witnesses

Fred L. Emery

John F. C. Printich

Inventor:

George H. Phelps.

by Lemby Gregory
Attys.

UNITED STATES PATENT OFFICE.

GEORGE H. PHELPS, OF WEST NEWTON, MASSACHUSETTS.

SPEAKING-TUBE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 360,469, dated April 5, 1887.

Application filed January 5, 1887. Serial No. 223,451. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. PHELPS, of West Newton, county of Middlesex and State of Massachusetts, have invented an Improvement in Speaking-Tube Attachments, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

10 This invention has for its object to provide a speaking-tube with a device by which a person may both speak and hear at the same time, to thereby overcome the very annoying practice now customary of moving the head
15 to either speak or listen, as desired.

In accordance with this invention, the tube to which the mouth-piece is attached is provided with a tube projecting therefrom at an angle, to which latter tube an ear-piece is attached, preferably by means of a flexible tube. A suitable valve is employed, preferably in the tube, so that a person may blow into the mouth-piece and close the hearing-tube, in order that a whistle placed at the opposite end
25 of the speaking-tube may respond. The mouth-piece tube is provided with a suitable coupling, by which the device may be attached to an ordinary mouth-piece.

Figure 1 shows in elevation and partial section a speaking-tube attachment embodying this invention; Fig. 2, a portion of the speaking-tube attachment, showing a coupling in section; and Fig. 3, a view of the device, similar to Fig. 2, showing a modified form of coupling.
35

The tube *a* is provided with a mouth-piece, *a'*, fitted to it, and also with a hearing-tube, *b*, leading from one side at an angle, preferably an acute angle, and an elbow, *c*, is joined to the tube *b* by a flexible tube, *d*. An ear-piece, *e*, is fitted to the elbow *c*, and the flexible tube *d* is of suitable length to permit the ear-piece *e* to be brought in correct position to hear at the same time that the mouth of the person
40 hearing is adjacent to the mouth-piece *a'*. A suitable valve is placed within the tube *b*, herein shown as a ball, *f*, of cork or other light material, vibrating between two perforated plates, 23, so that a person may blow into the tube *a* and cause a whistle at the opposite end of the speaking-tube *A* to respond, the ball seating itself against the plate 2.
50

By projecting the tube *b* from the tube *a* at

an acute angle, as shown in Fig. 1, a very short length of flexible tube, *d*, is necessary, and, if
55 desired, a metal tubing may be substituted for the flexible tubing, it, however, being necessary to form a joint to make the connection.

The tube *a* may be of suitable diameter to fit the speaking-tube *A*, which may be provided at its end with a coupling, one form of which is shown in Fig. 2, such form of coupling consisting of a disk, 4, secured to the tube *a*, and provided with a flange, 5, having a suitable groove, 6, which grooved flange springs
65 over upon and permits the groove 6 to receive the bead 7 of an ordinary metal mouth-piece, *n*.

In Fig. 3 I have shown another form of coupling, consisting of the disk 8, having a flange, 9, slitted to form a series of prongs, which
70 may be bent so as to spring over the mouth-piece *n*, which is usually made of porcelain.

Instead of the particular forms of coupling herein shown, any other suitable form may be employed to attach the device to a mouth-
75 piece of ordinary construction.

I claim—

1. The speaking-tube attachment herein described, consisting of the rigid tube *a*, provided with a mouth-piece, the rigid tube *b*, joined
80 to the tube *a* at an acute angle, an ear-piece, *e*, and a flexible connection between the said tube *b* and the said ear-piece, substantially as set forth.

2. The speaking-tube attachment herein described, consisting of the tube *a* and mouth-
85 piece fitted to it, the tube *b*, joining the tube *a*, an ear-piece, *e*, and tubing, substantially as described, connecting the ear-piece *e* with the tube *b*, and a valve for closing the ear-piece
90 tube, all substantially as and for the purpose set forth.

3. A speaking-tube attachment having a rigid mouth-piece tube, which is provided with an enlarged coupling, consisting of a spring-
95 flange adapted to be sprung over the ordinary mouth-piece of the speaking-tube, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two sub-
100 scribing witnesses.

GEORGE H. PHELPS.

Witnesses:

BERNICE J. NOYES,
FRED L. EMERY.