

No. 654,326.

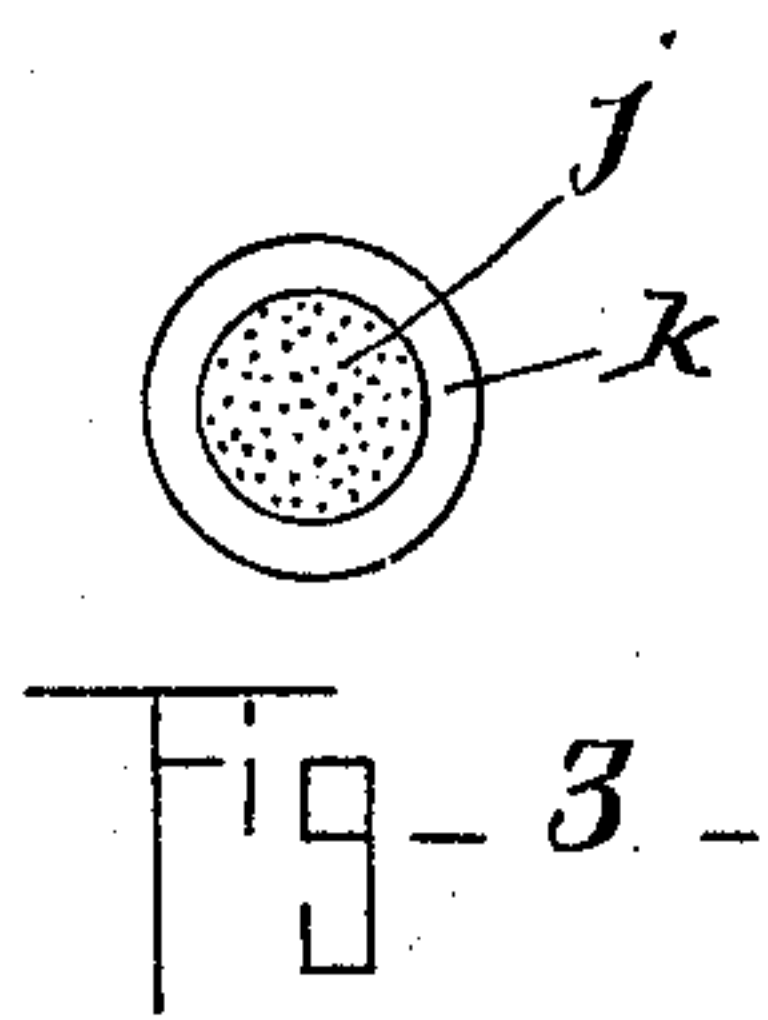
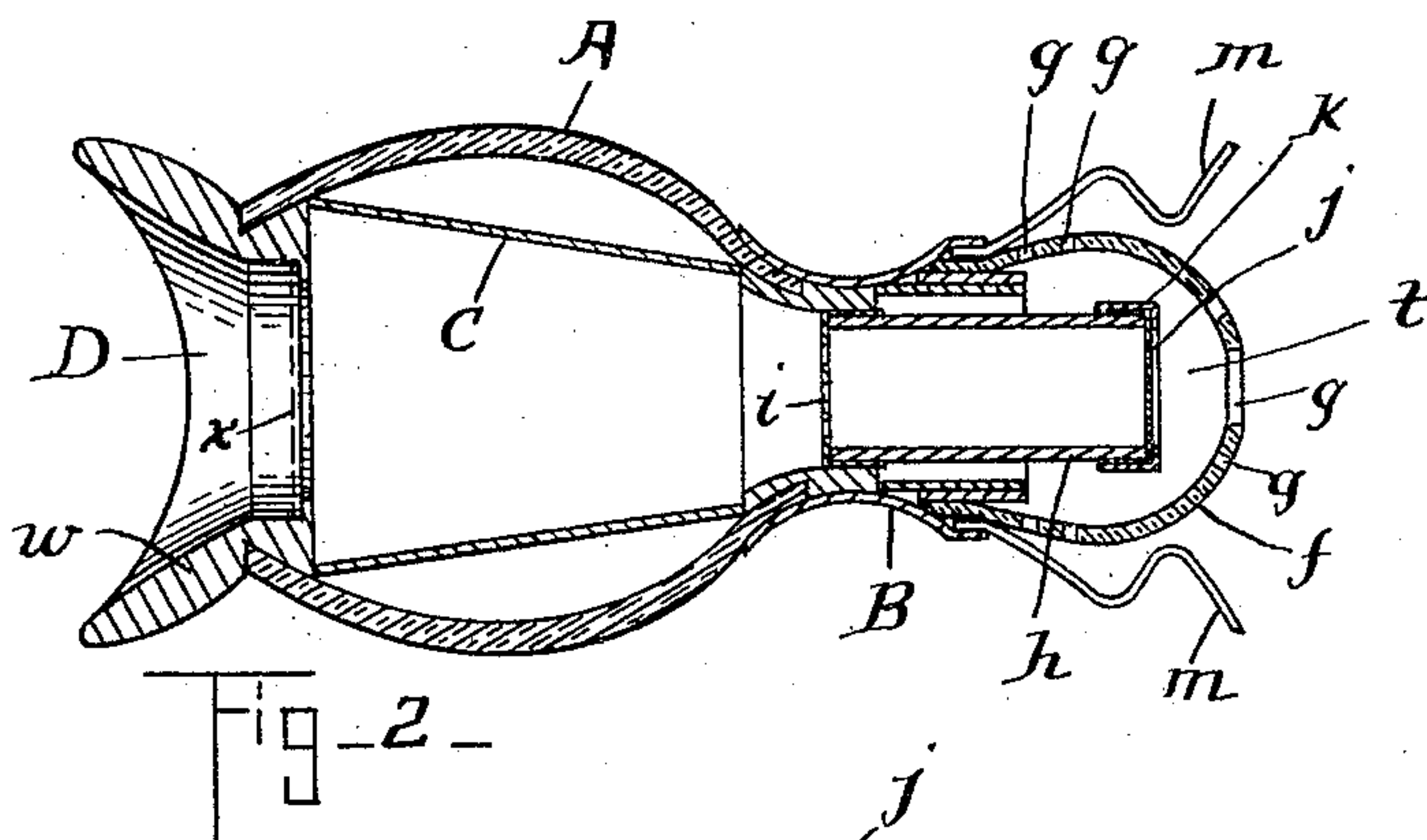
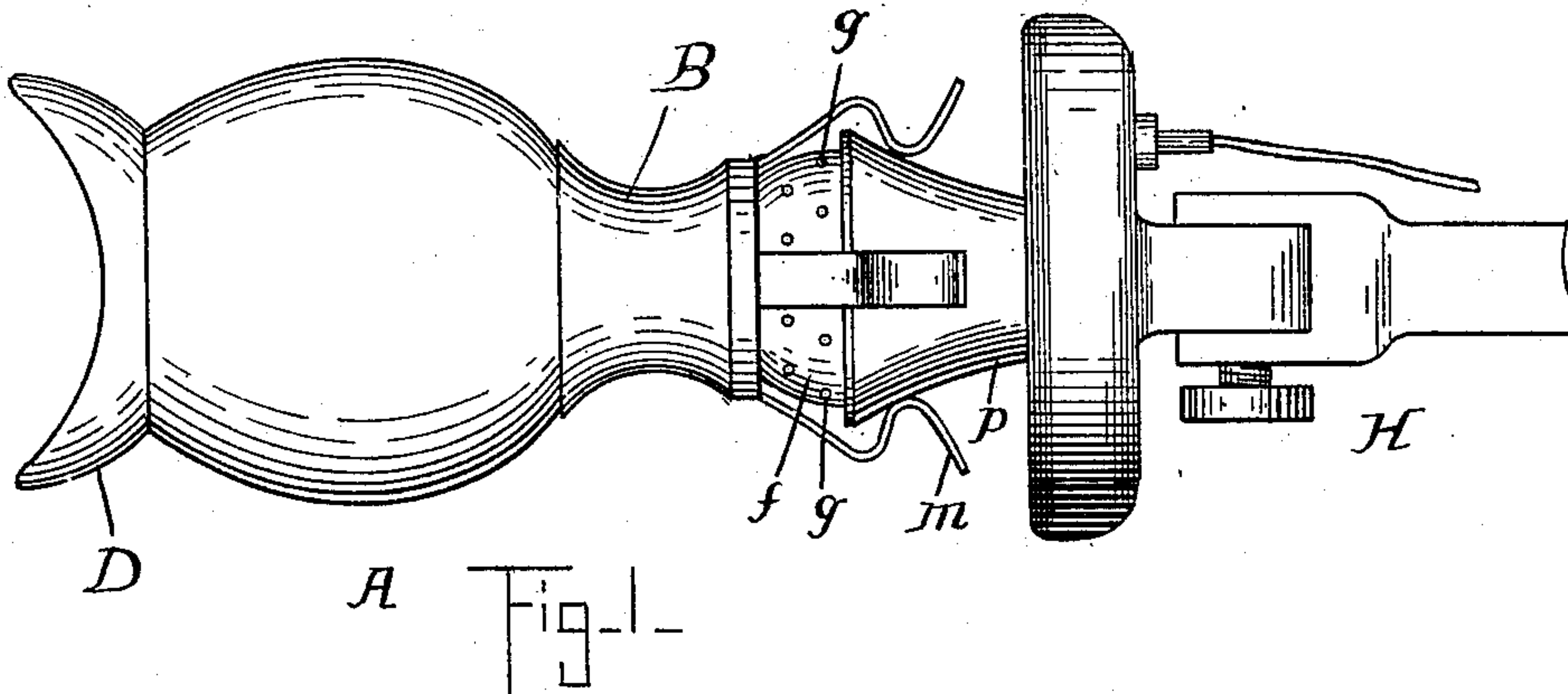
Patented July 24, 1900.

H. P. ROBERTS.

VOICE CONCEALING ATTACHMENT FOR TELEPHONES.

(Application filed Jan. 15, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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VOICE-CONCEALING ATTACHMENT FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 654,326, dated July 24, 1900.

Application filed January 15, 1900. Serial No. 1,409. (No model.)

To all whom it may concern:

Be it known that I, HENRY PITT ROBERTS, a citizen of the United States, residing at Boston, county of Suffolk, State of Massachusetts, have made certain new and useful Improvements in Voice-Concealing Attachments for Telephones, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top plan view of a telephone-transmitter, showing my improved voice-concealing attachment in position for use; Fig. 2, a longitudinal section of said attachment; Fig. 3, an elevation illustrating details.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

Users of telephones are frequently subjected to considerable annoyance from the fact that people in the apartment in which the instrument is located can hear the conversation.

To overcome this objection is the object of my present invention by which I provide a device in the use of which the sound of the voice is prevented from being heard outside the instrument, while the sound transmitted over the wires is in very slight, if any, degree interfered with.

The implement comprises a spherical bulb of preferably soft rubber of about the consistency of the ordinary rubber ball. For this material, however, any non-vibrant substance may be substituted. This bulb A is open at both ends, and secured in the smaller of said openings there is a hard-rubber tube B. Within this bulb arranged longitudinally there is a cylindrical casing C, preferably of celluloid, and converging toward the inner mouth of the hard-rubber tube B, with which it registers. In the outer end of the bulb is secured an oval mouthpiece D, which opens into the outer end of the inclosed casing C. Secured to the outer end of the hard-rubber tube B there is a soft-rubber bulb *f*, into which said tube opens. This last bulb *f* is perforated at *g g* in line with a tube of metal *h*, held within

the tube B and projecting into the bulb *f*. The inner end of the metallic tube *h* is covered by a sheet of perforated rubber *i* of about the character of rubber sheeting. The outer end of said tube is covered by a sheet *j* of like character, held by a cap *k*. This last sheet *j* is punctured with pin-holes, as indicated in Fig. 3, so that they will be normally closed by the contractile nature of the material. By this arrangement an air-chamber *t* is left within the small perforate bulb *f*.

Secured to the tube B and overriding the bulb *f* there is a suitable number of spring-clips *m*, arranged to receive the ordinary mouthpiece *p* of the transmitter H and support the attachment in position. When thus adjusted on the transmitter, the operator when using the device holds his lips tightly against the mouthpiece D and talks into the implement in an ordinary tone of voice. The sound is directed by the converging cylinder C against the non-vibrant sheet *i*, through which it passes into tube *h*. The air-pressure thus induced expands the outer sheet *j*, so that the pin-holes therein open, permitting the passage of sound through openings *g* in the small bulb *f*, held tightly in mouthpiece *p* of the transmitter.

I find in use that the non-vibrant body A, with the similar non-vibrant bulb *f*, forming the chamber *t*, in connection with the directing-tube *h*, with its perforate soft elastic ends, absolutely prevents any distinguishable speech-sound escaping into the apartment in which the speaker is located, and yet the series of sound-waves are so concentrated and directed against the vibrator within the transmitter that there is no appreciable interference with the transmission of the voice over the wires or with the perfect understanding of speech through the receiver.

It will be understood that I do not wish to be confined to the use of two chambers or bulbs A *f*, as one chamber, as A, may be employed alone and effect excellent results, although I prefer the use of two bulbs of non-vibrant material.

Having thus described my invention, what I claim is—

1. A voice-concealing attachment for telephones comprising a body attachable to the

transmitter-mouthpiece and containing two chambers of non-vibrant material opening into each other substantially in alinement and in alinement with said mouthpiece when
5 the body is attached thereto.

2. A voice-concealing attachment for telephones, comprising the bulbs, A, *f*, of non-vibrant material, and a passage connecting said bulbs, one end of said passage being
10 closed by a perforated sheet of non-vibrant material.

3. A voice-concealing attachment for telephones comprising the bulbs, A, *f*, of non-vibrant material, one end of said passage being
15 closed by a perforated sheet of non-vibrant material; and devices for detachably securing said attachment to the mouthpiece of the telephone-transmitter.

4. In a device of the character described
20 the connected bulbs of non-vibrant material

in combination with the converging tube opening into said connection the perforate, non-vibrant sheet across said connection and sound-openings in the outer bulb, substantially as and for the purpose specified.

5. The bulb, A, and the perforated bulb, *f*,
25 connected by tube, B; the directing-tube, *h*, having its ends closed by perforate sheets, *j*, *i*, and means for attaching the tube, B, to a telephone-transmitter.

6. The bulb, A, and the perforated bulb, *f*,
30 connected by tube, B; the directing-tube, *h*, having its ends closed by perforate sheets, *j*, *i*, the converging cylinder, C, and means for attaching the tube, B, to a telephone-transmitter.

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