

(No Model.)

R. W. WHITNEY & B. K. COWLES.
MOUTH PIECE FOR TELEPHONES.

No. 421,800.

Patented Feb. 18, 1890.

Fig. 1.

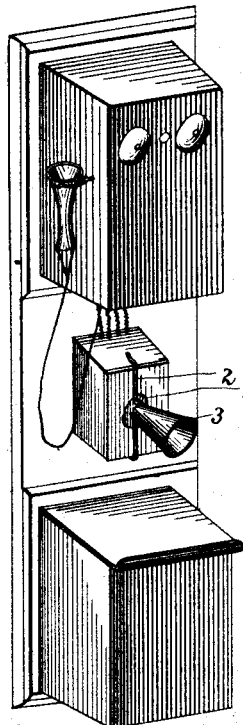


Fig. 2.

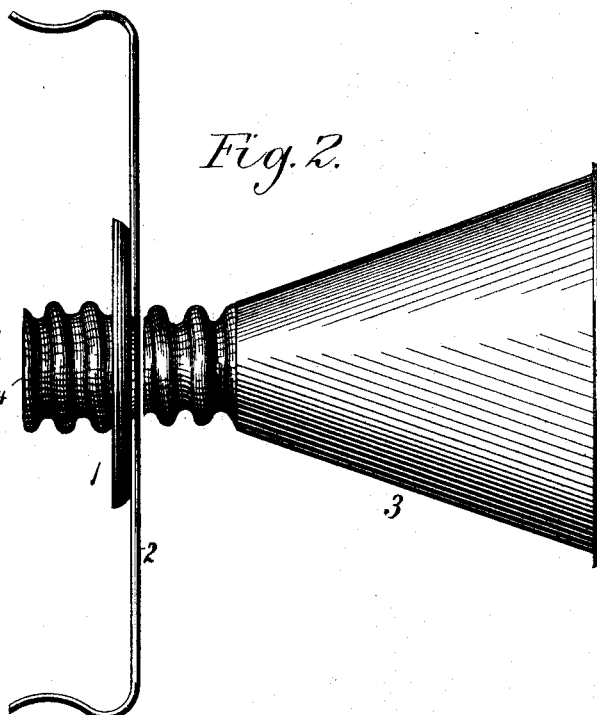
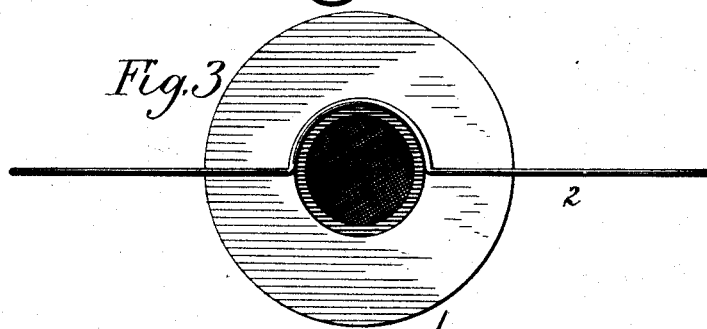


Fig. 3.



Witnesses

C. A. Upham.
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Inventors

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UNITED STATES PATENT OFFICE.

RUEL W. WHITNEY AND BYRON K. COWLES, OF SAN FRANCISCO, CALIFORNIA.

MOUTH-PIECE FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 421,800, dated February 18, 1890.

Application filed October 2, 1888. Serial No. 287,018. (No model.)

To all whom it may concern:

Be it known that we, RUEL W. WHITNEY and BYRON K. COWLES, citizens of the United States, residing at San Francisco, in the county of San Francisco, State of California, have invented certain new and useful Improvements in Mouth-Pieces for Telephones, of which the following is a specification, reference being had therein to the accompanying drawings.

Similar figures refer to similar parts throughout the several views.

Figure 1 shows the holder and mouth-piece in place on a telephone-transmitter. Fig. 2 shows the holder-tube with its supporting-wire and the mouth-piece detached. Fig. 3 is an end view of the holder, showing the gauze diaphragm.

The object of our invention is to concentrate the voice upon the diaphragm of the telephone. We are aware that several devices have been patented for this purpose, but none that can be manufactured as cheaply as ours. In a former patent granted to R. W. Whitney and Frederick Pultz a tube was used for this purpose in which was contained a perforated screen seated in an annular groove, the object, as then stated, being to form an air-chamber between it and the diaphragm of the telephone. Experience has demonstrated that, while the invention was a great improvement over anything heretofore used, the use of an air-chamber was entirely unnecessary.

The object of our present invention is to conduct the voice as nearly to the diaphragm of the telephone-transmitter through a tube as possible; but in experimenting we have demonstrated that an open tube, while it centers the voice upon the diaphragm, does so with too much force, and the vibrations become confused and indistinct, especially when talking very loud. To avoid this and yet convey the voice to the telephone-diaphragm direct, and yet not with too much force, we have placed the holder of the tube in close proximity to the diaphragm and have placed a wire-netting 4 on the end of the holder to prevent the too forcible entrance of the

voice. Into this holder we place a tube 3, the two making, when screwed together, a close connection. We do not use the wire-netting in the tube, but at the end of the holder of the tube, in order that it may come as close to the telephone-diaphragm as possible, thus enabling the sound-waves to be carried close to it, but to only allow sufficient sound-waves to pass through to make the articulation distinct and clear. That too much sound will not pass through may be seen by holding it before the mouth and blowing through it. It will thus be seen that the end sought for has been attained.

The holder is made of thin metal and the outer edge is turned down or over to fit into the turned groove in the door of the transmitter, as shown at 1, and is attached to the telephone by a single wire 2.

We are aware that this manner of attaching transmitters is not new where two wires are used; but we do not know of any that attach by a single wire by springing it upon the transmitter.

Having described our invention in full, what we desire to secure by Letters Patent of the United States is—

1. A tubular holder for telephone mouth-pieces, screw-threaded for the purpose of receiving a mouth-piece, and having on its inner end a gauze wire-netting to prevent the too forcible sound of the voice passing through.

2. A holder having two arms for the purpose of clasping a telephone-box, said holder being screw-threaded to receive a mouth-piece or tube and having on its inner end a gauze wire-netting, and a tube or mouth-piece screw-threaded to connect with the holder, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

RUEL W. WHITNEY.
BYRON K. COWLES.

Witnesses:

HENRY M. MCGILL,
J. EDWIN GRANT.