

H. WILLARD & A. M. CHENEY.
Acoustic-Telephone.

No. 221,135.

Patented Oct. 28, 1879.

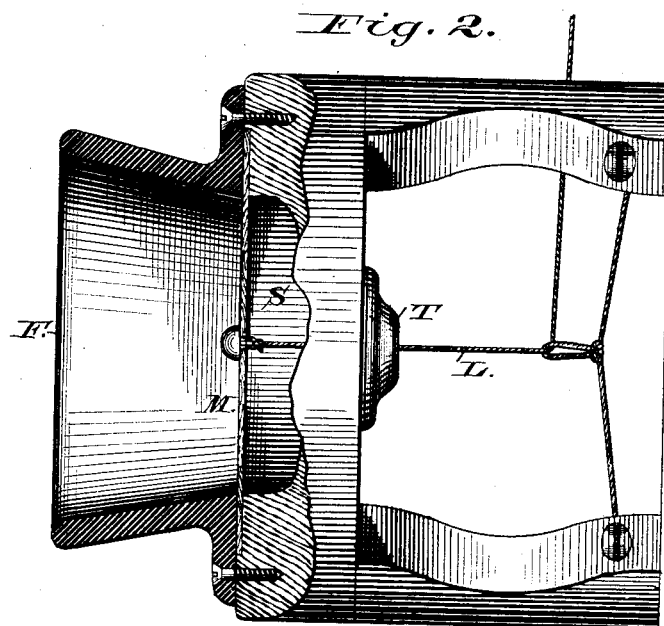
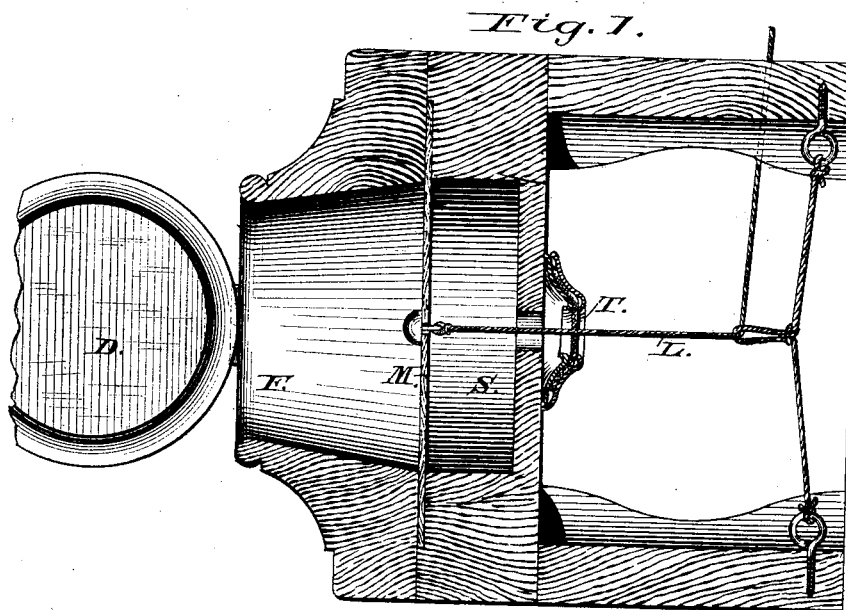
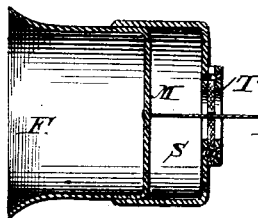


Fig. 3.
Attest:
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UNITED STATES PATENT OFFICE.

HENDERSON WILLARD AND ALONZO M. CHENEY, OF CHARLOTTE, MICH.

IMPROVEMENT IN ACOUSTIC TELEPHONES.

Specification forming part of Letters Patent No. **221,135**, dated October 28, 1879; application filed December 27, 1878.

To all whom it may concern:

Be it known that we, HENDERSON WILLARD and ALONZO M. CHENEY, both of Charlotte, in the State of Michigan, have invented certain new and useful Improvements in Acoustic Telephones, of which the following is a full and sufficient specification, reference being had to the accompanying drawings and letters marked thereon.

Like letters in the several figures mean the same thing.

The within are improvements upon our invention described in specification filed October 15, 1878, wherein we show a mouth and ear trumpet with side walls and diaphragm of wood. We have improved upon that device, first, by adding to rear of diaphragm M a closed chamber, S, with cloth or leather lined scutcheon T.

Our object in adding the closed chamber S is to devocalize that side of the chamber, so that conversation through the telephone can only be heard through the ear and mouth trumpet F; and the object of hinged stopper D is to close the trumpet F and exclude offensive noises.

The object of cloth or leather lined scutcheon T is to close the central opening in back chamber, through which the vocal cord L must pass, and, further, to keep said vocal cord from hitting anything solid at that point.

With the instrument thus constructed, the operator can receive his messages privately by simply placing his ear close into the trumpet F, thereby devocalizing it to all ears excepting his own.

Referring now especially to the drawings, Figure 1 is a cross-section of our improved telephone, with wooden diaphragm M, wooden mouth and ear trumpet F, wooden chamber S,

and wooden stopper D, the vocal cord L being of metal or other material, and the scutcheon T being of wood or metal and lined with cloth or soft leather.

Fig. 2 is a modification of Fig. 1, showing mouth-trumpet F as constructed of metal. Fig. 3 is still another modification, showing all parts as made of metal.

Although we prefer wood, as in Fig. 1, yet we do not wish to thus confine ourselves to that material, because our invention in this case comprises a silent chamber, S, and a hinged stopper, D, for the purposes hereinbefore specified; and we do not wish to confine ourselves to any particular outward shape of instrument, whether round or angular.

Having thus described our invention, what we claim as new, and wish to secure by Letters Patent, is—

1. An acoustic telephone having an air-chamber behind the diaphragm, said chamber being entirely closed on one side by the diaphragm and its attachments, and on the other by its walls and a cloth or leather or equivalent scutcheon surrounding the wire or cord.

2. In acoustic telephones, the combination of cloth or leather lined scutcheon with the walls of the rear chamber and vocal cord, as and for the purposes set forth.

3. The combination, in a telephone, of diaphragm M, vocal cord L, scutcheon T, attached to the rear wall of chamber S, and mouth or ear piece F, as and for the purposes set forth.

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Witnesses:

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