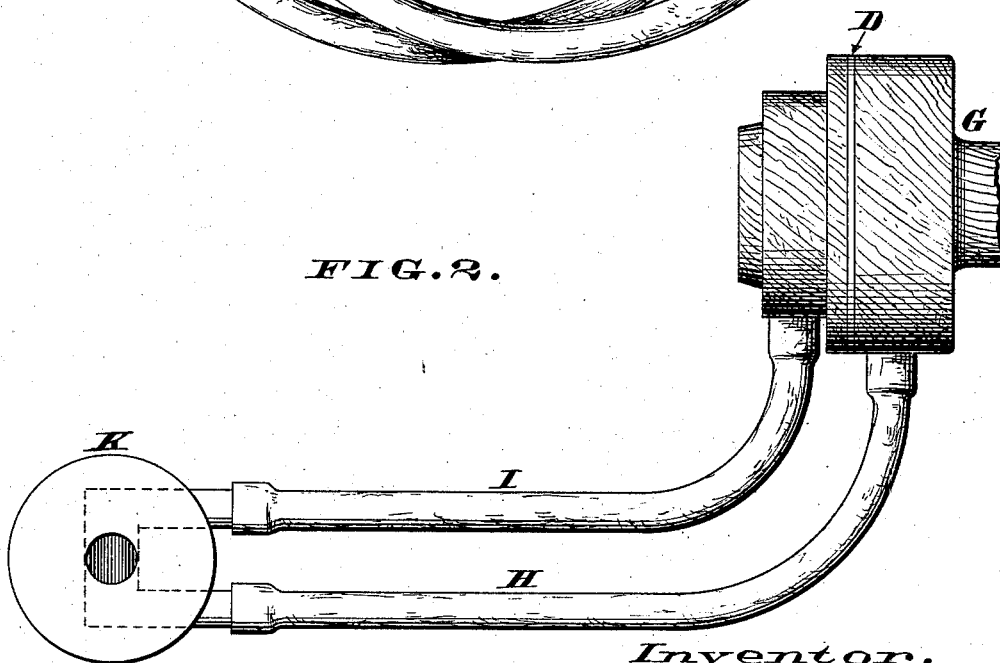
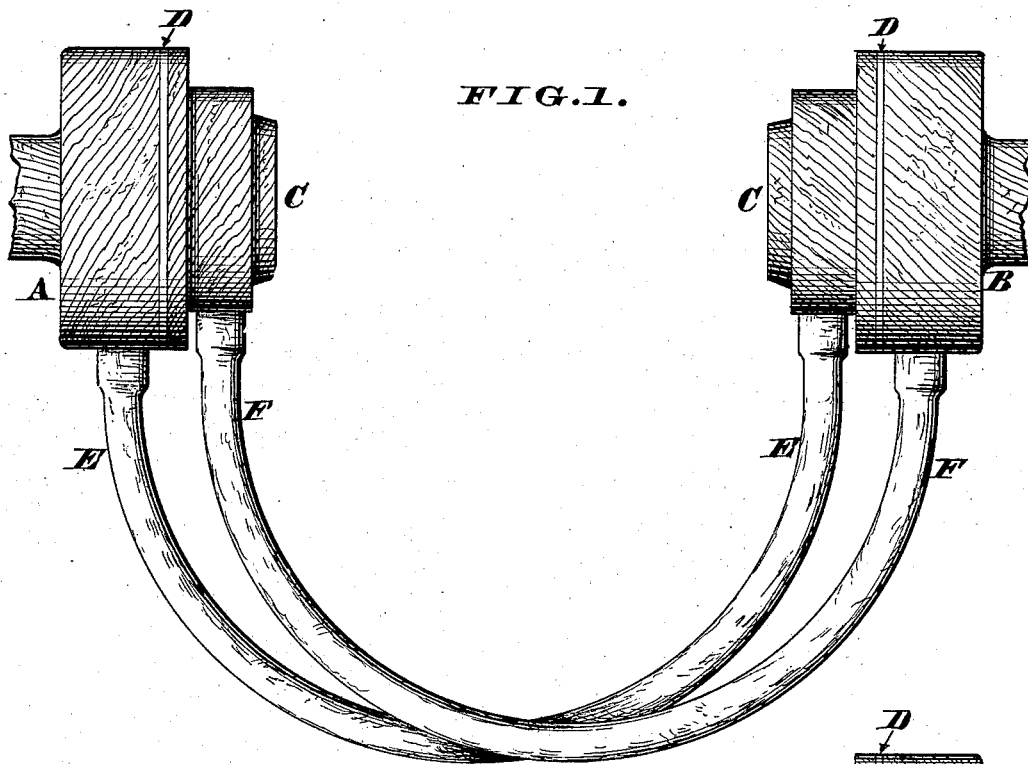


C. T. DICKSON.
Telephone.

No. 217,003.

Patented July 1, 1879.



Attest
Guaravus A. Meyer
Wm. Tyson Judkins.

Inventor.

Chas. T. Dickson

UNITED STATES PATENT OFFICE.

CHARLES T. DICKSON, OF CINCINNATI, OHIO.

IMPROVEMENT IN TELEPHONES.

Specification forming part of Letters Patent No. **217,003**, dated July 1, 1879; application filed March 21, 1879.

To all whom it may concern:

Be it known that I, CHAS. T. DICKSON, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new Improvement in Telephones; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a front elevation of the preferred form of my invention. Fig. 2 is a modified form of the same.

Similar letters of reference indicate corresponding parts in the several figures.

The invention relates to an improved means of increasing the sounds communicated by telephonic instruments.

The nature of my invention consists in connecting two ordinary telephones arranged to fit over both ears of the operator by means of flexible tubes, so arranged that the chamber above the diaphragm in each telephone communicates with the chamber below the diaphragm in the other, both telephones being upon the same circuit.

To enable others skilled in the art to understand my invention, I will describe the best mode of carrying it into effect.

In the accompanying drawings, A and B represent two telephones arranged to fit over the ears. D D are the diaphragms, and E F are the tubes connecting the telephones, the tube E connecting the chamber below the diaphragm in the telephone A with the chamber above the diaphragm in telephone B, and the tube F connecting the chamber below the diaphragm in telephone B with the chamber above the diaphragm in telephone A.

The tubes may be made of rubber or any suitable material, and any ordinary telephones may be used.

As sounds are received upon the diaphragms D D the vibrations in the chamber below the diaphragm in each telephone are conveyed at

once to the chamber above the diaphragm in the other telephone, and the sounds produced are very much increased and the efficiency of the telephones very materially enhanced.

I am aware that a similar result has been attained by means of the microphone and other devices; but none of them are so simple, convenient, and inexpensive as my improvement.

Either telephone may be used in talking.

In Fig. 2 a modified form is shown, where a single telephone is used with the tubes H I conveying the sounds from both chambers to the other ear.

In a prior application, filed March 17, 1879, I described a telephone with tubes attached to the vocalizing-chamber, whereby one instrument can be used for hearing and speaking without shifting the telephone. I do not now claim that invention broadly, but the above-described method of carrying it into effect.

Neither do I claim the modification here shown, as I have shown in an application filed March 17, 1879, a similar device by which the chambers both above and below the diaphragm are connected with the ears.

Having described my invention, what I claim and desire to secure by Letters Patent is—

1. Two telephones arranged upon the same circuit, so connected by tubes that the chamber below the diaphragm in each communicates with the chamber above the diaphragm in the other, as and for the purpose specified.

2. In a pair of telephones so connected by tubes that the chamber below the diaphragm in each communicates with the chamber above the diaphragm in the other, the tubes E F connecting the telephones, in the manner and for the purpose specified.

CHAS. T. DICKSON.

Witnesses:

W. TYSON JUDKINS,
GUSTAVUS A. MEYER.