

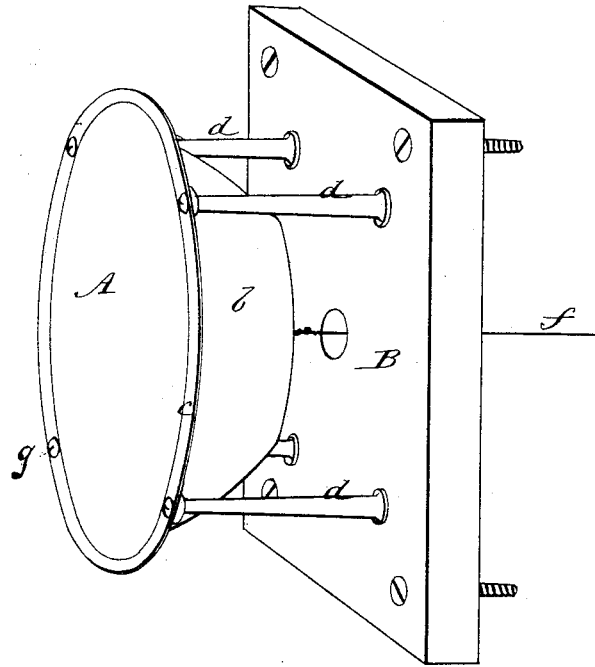
(No Model.)

H. E. HUSTON.  
MECHANICAL TELEPHONE.

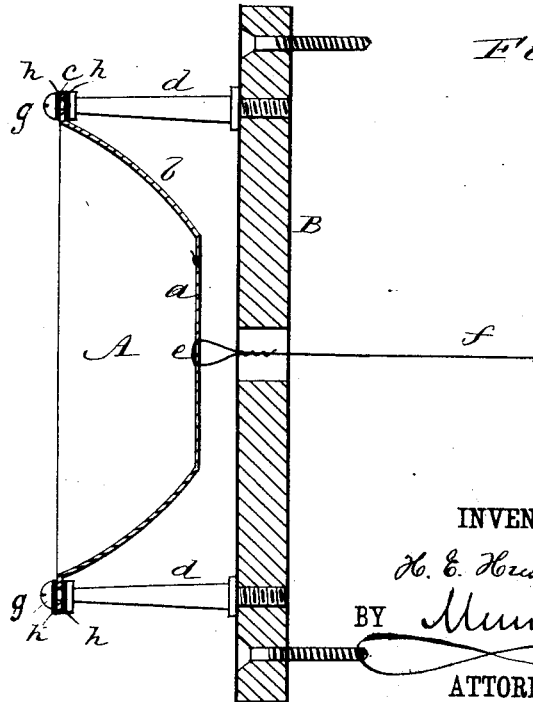
No. 267,208.

Patented Nov. 7, 1882.

*Fig. 1*



*Fig. 2*



WITNESSES:

*C. Neveu*  
*B. S. Underwood*

INVENTOR:

*H. E. Huston.*

BY

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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HARVEY E. HUSTON, OF MONTICELLO, ILLINOIS.

## MECHANICAL TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 267,208, dated November 7, 1882.

Application filed June 3, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HARVEY E. HUSTON, of Monticello, in the county of Piatt and State of Illinois, have invented a new and Improved Mechanical Telephone, of which the following is a full, clear, and exact description.

The objects of this invention are, first, to allow the operator to remain in the same position while giving and receiving messages, so as to avoid the necessity of alternately applying mouth and ear to the instrument; and, second, to eliminate the reverberations which take place in telephones in which the diaphragm is inclosed.

To these ends my invention consists in a diaphragm of dish form, fitted in an open stand, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a perspective view of my improved telephone-instrument. Fig. 2 is a transverse section of the same.

A is the diaphragm, of dish form, made preferably from a single piece of thin metal pressed or spun to the shape shown. The bottom or base *a* of the diaphragm is flat. Its sides *b* are beveled or concaved outward from the bottom and their outer edges are formed with a narrow rim, *c*.

B is the base, of wood or metal, provided with four fixed posts, *d*, to which the diaphragm is secured by screws *g* passing through the rim *c* into the posts, a rubber washer, *h*, being inserted between the ends of the posts and the diaphragm, and also beneath the heads of the screws by which it is attached.

*e* is the call-button, fitted at the center of the diaphragm, and *f* is the line-wire, connected to the button *e*, passing through an aperture in the base B.

The instrument is to be attached to the wall by screws inserted through the base. A similar instrument is to be placed at the point to which it is desired to communicate and the two connected by the line-wire, which is to be drawn tightly. The call-button *e* is to be struck with a pencil or other hard substance, and the speaker, standing in front of the instrument, talks directly into the dish-shaped diaphragm. The hearer stands in the same position.

It will be seen that the diaphragm is open at all sides, so that reverberations against the sides of a sounding-box are avoided. The peculiar shape of the diaphragm is advantageous, for the reason that in speaking into the instrument the tones of the voice strike squarely and evenly upon the flat disk *a*, while in receiving a message this disk throws the sound directly forward, while the concave or beveled sides concentrate and direct the sound inwardly to the ears of the receiver. The instrument is also of simple and inexpensive construction.

I am aware that diaphragms formed in one piece with the flaring sides are not broadly new, and I am also aware that concave diaphragms have heretofore been used; and I therefore do not claim such inventions.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with the perforated base B and the posts *d*, secured thereto, of the diaphragm A, formed with the flat base *a*, the beveled or concaved sides *b*, and the perforated rim *c*, the screws *g*, and the packing *h*, substantially as and for the purpose set forth.

HARVEY E. HUSTON.

Witnesses:

CHARLES BROWN,  
CHRISTIAN WENZENROTH.