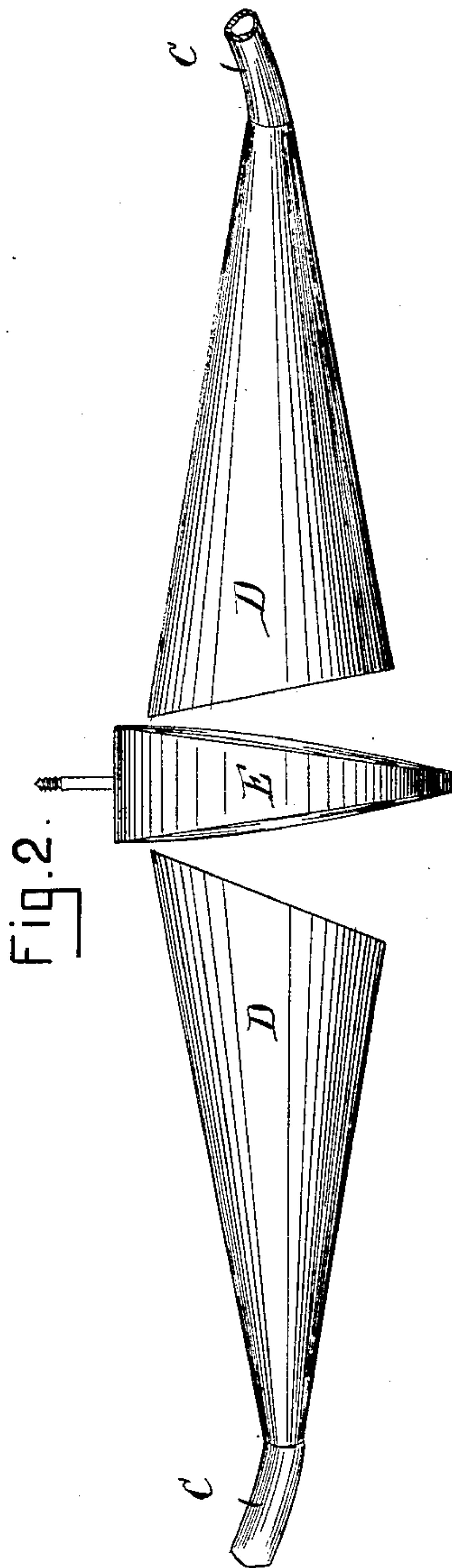
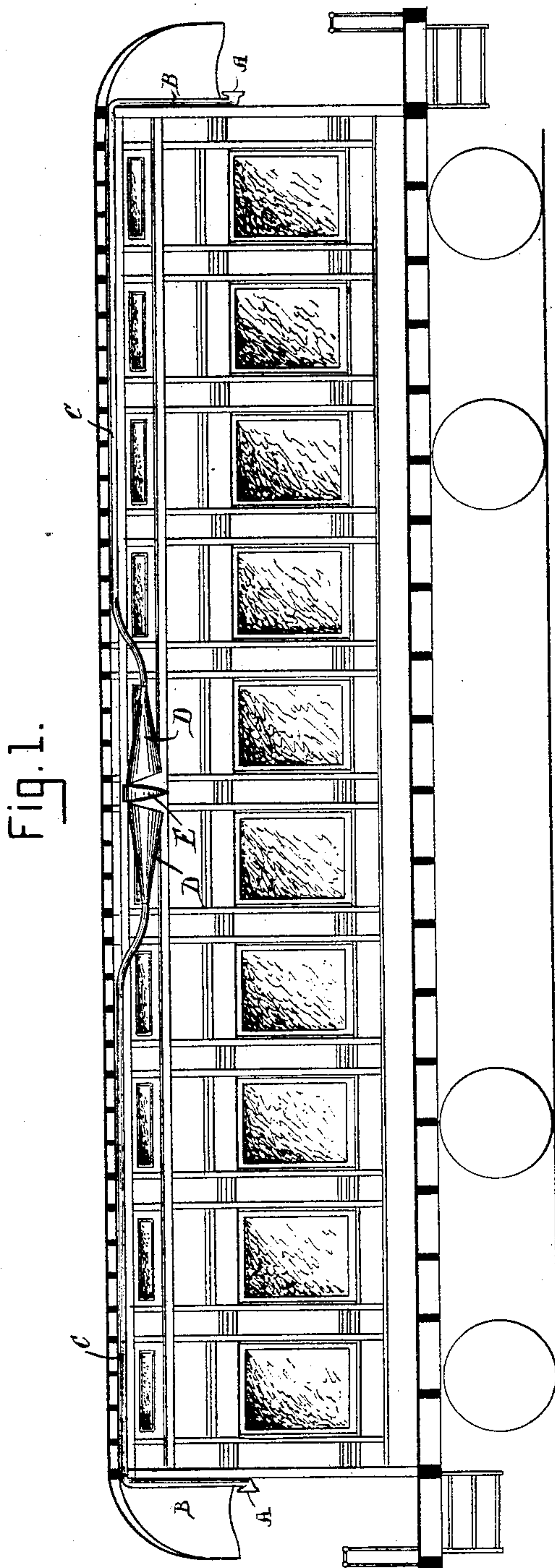


(No Model.)

H. W. LIBBEY.
SPEAKING TUBE.

No. 572,264.

Patented Dec. 1, 1896.



Witnesses.
Minister G. Herwin
Laura E. Hayward

Inventor.
H. W. Libbey
by Edwin Blanta
attorney.

UNITED STATES PATENT OFFICE.

HOSEA W. LIBBEY, OF BOSTON, MASSACHUSETTS.

SPEAKING-TUBE.

SPECIFICATION forming part of Letters Patent No. 572,264, dated December 1, 1896.

Application filed October 17, 1895. Serial No. 565,976. (No model.)

To all whom it may concern:

Be it known that I, HOSEA W. LIBBEY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Voice Carriers and Distributers, of which the following, taken in connection with the accompanying drawings, is a specification.

It is well known that when the conductor or brakeman of a railroad-car announces the name of a station as a rule it is inaudible to almost if not all of the passengers of the car. Now the object of my invention is to overcome this defect and to provide a means whereby the voice will be audible in every part of the car.

The invention consists of a tube extending from each end of the car to nearly the center thereof, the inner end of each tube being provided with a cone through which the voice is delivered onto a plate or disk preferably having convex surfaces, so that the voice or sound is deflected downward and distributed so that it is rendered audible in all parts of the car.

Referring to the accompanying drawings, Figure 1 represents a longitudinal section of a car fitted with a voice carrier and distributor embodying my invention. Fig. 2 is a detached view, drawn on a larger scale, of a voice carrier and distributor embodying my invention.

A A represent mouthpieces, one of which is situated at each end of the car. These mouthpieces communicate with upright tubes B B, which communicate with a tube C C, the inner end of each of which is fitted with a cone-shaped delivery-piece D, that delivers the voice from the mouthpiece onto a disk E, preferably having a convex surface on each side. Thus the voice passes through the mouthpiece A, tubes B C, and the delivery-piece D and delivers onto the convex disk E, by which it is distributed throughout the car,

so that all the passengers can hear the name of the station announced.

Although I have shown and described the invention as applied to railroad-cars, it is obvious that it can be applied with advantage in many other places.

What I claim is—

1. A voice-carrier consisting of a tube having a mouthpiece at one end and a conical delivery-chamber at its other end its delivery end being cut off on an obtuse angle in combination with a diaphragm arranged in front of the mouth of the cone-chamber and having angular convex surfaces whereby the sound-waves delivered from the said chamber will strike the diaphragm and be directed in a downward course.

2. In combination with a voice-carrier a conical delivery-chamber the delivery end of which is cut off on an obtuse angle and a distributing-disk arranged opposite the enlarged mouth of the cone-chamber having an angular convex surface upon which the sound-waves are delivered and directed in a downward course substantially as set forth.

3. In a voice-carrier the combination of a tube a conical delivery-chamber at the inner end thereof and a diaphragm having a convex surface opposed to the delivery end of the said delivery-chamber to receive and deflect the sound-waves from said delivery-chamber, said convex surface of the diaphragm and the delivery end of said chamber respectively inclined on lines forming an acute angle substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 26th day of September, A. D. 1895.

HOSEA W. LIBBEY.

Witnesses:

CHAS. STEERE,
EDWIN PLANTA.