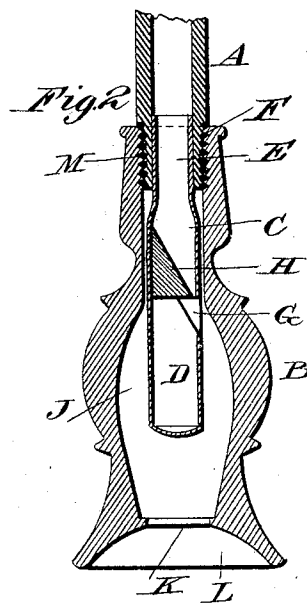
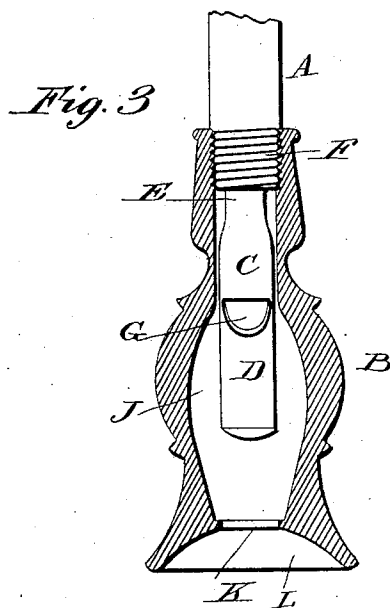
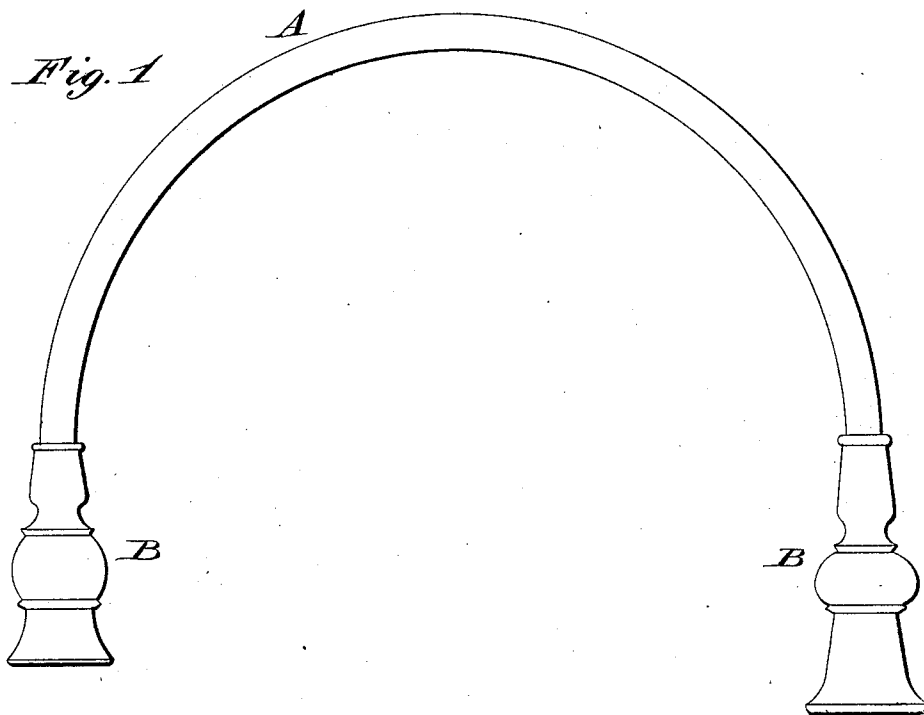


(No Model.)

W. PERPENTE.
SPEAKING TUBE.

No. 564,898.

Patented July 28, 1896.



Witnesses.

J. F. Coleman
Archie G. Reese

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UNITED STATES PATENT OFFICE.

WILLIAM PERPENTE, OF NEW HAVEN, CONNECTICUT.

SPEAKING-TUBE.

SPECIFICATION forming part of Letters Patent No. 564,898, dated July 28, 1896.

Application filed December 10, 1895. Serial No. 571,669. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PERPENTE, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Speaking-Tubes; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to speaking-tubes, especially flexible speaking-tubes for use in carriages for communication between the occupant and driver or coachman thereon; and the invention is specifically directed to the mouthpiece and signaling device of such speaking-tubes.

The objects of my invention are to provide speaking-tubes which will be simple and attractive in construction, which will give a loud clear signal, and which can be used for speaking without removing the whistle or affecting the signal.

To these ends my invention consists generally in the employment of a suitable tube having at one or both extremities a metallic whistle which is preferably cylindrical in shape, its body being somewhat larger in diameter than the tube, and having a contracted portion or neck which enters the open end of the tube, where it is adapted to be rigidly secured. This whistle is closed at its other extremity, and near its center is provided with the usual whistle-opening and plug. The whistle is surrounded by a wooden mouthpiece having a chamber somewhat larger than the external diameter of the body of the whistle, said mouthpiece being provided with a contracted bell-shaped opening placed immediately above the closed end of the whistle.

In order to better understand the nature of my invention, attention is directed to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a side view of my invention removed from the carriage, with which it is preferably used. Fig. 2 is a longitudinal section of the whistle and mouthpiece; and Fig. 3 is a view of the same, showing the whistle in front elevation, the mouthpiece being in section.

The same parts are represented by the same letters of reference throughout.

A is a tube of any well-known construction, a flexible tube being shown, which may be formed of rubber or of woven material. This tube is provided at both ends with a mouthpiece B B, made preferably either of wood or metal. At one or both extremities of the tube is secured a whistle C, made, by preference, of metal. This whistle is provided with a cylindrical body D of somewhat larger diameter than the tube A, which body is contracted at E to form a neck, which is inserted in the open extremity of the tube, being secured in this portion by a wrapping of twine or wire F. The body of the whistle is formed with an opening G, containing a plug H of the usual design, the opening being made as large as possible in order to properly conduct the sound.

The mouthpiece is provided with a bulged chamber J, surrounding the whistle C, which is centrally located therein, and said chamber J communicates by means of a contracted opening K with the ordinary bell-shaped mouthpiece L. The entire mouthpiece is secured to the tube by means of screw-threads M upon its inner opening engaging with the threads or wire F.

By employing a whistle of the character shown, placed in connection with the tube, I prevent the possibility of loss of air in its operation, and the signal produced is very loud and clear. I find that by arranging a whistle of this construction within a chamber, as explained, the sound is conveyed through the whistle and tube with great distinctness, and that by making the body of the whistle considerably larger than the tube, as explained, the opening in the whistle can be made practically as large as the bore of the tube, if desired, so that there can be but little obstruction to the sound. I am not aware that any one prior to my invention ever produced a device having this feature, since in all the forms of such devices with which I am familiar wherein the whistle formed a permanent attachment to the tube the passage for the sound was materially obstructed at the whistle, so that the sound was imperfectly conducted.

I have stated that my invention is particu-

larly adapted for use with carriages for communication with the driver, in which case a flexible tube is used and a whistle at one end only is necessary. It is to be understood, however, that the device is also well adapted for use in any connection that speaking-tubes are now used, and with rigid or flexible tubes, and with whistles at either or both ends.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is as follows:

1. The combination with a tube A, and a cylindrical whistle C having an enlarged body D and a contracted neck E entering the end of the tube A and secured rigidly therein, of a mouthpiece B having a chamber J therein surrounding the body D of the whistle, and provided with a contracted opening K con-

necting with the bell-mouth L, substantially as set forth.

2. The combination with a tube A, and a cylindrical whistle C having an enlarged body D and a contracted neck E entering the end of the tube A and secured rigidly therein, of a mouthpiece B removably secured to the outside of said tube, and having a chamber J therein surrounding the body D of the whistle, and provided with a contracted opening K connecting with the bell-mouth L, substantially as set forth.

This specification signed and witnessed this 4th day of December, 1895.

WILLIAM PERPENTE.

Witnesses:

SIEGWART SPIER,
JOHN E. HEALY.