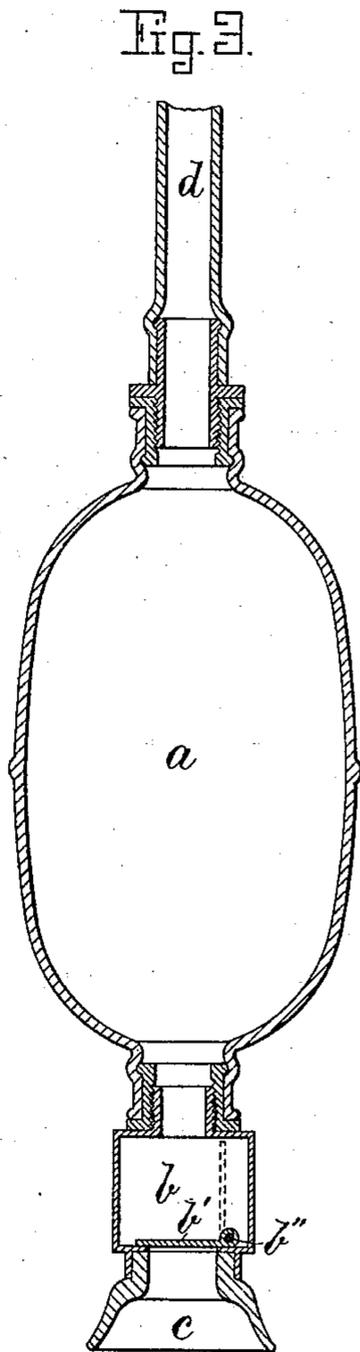
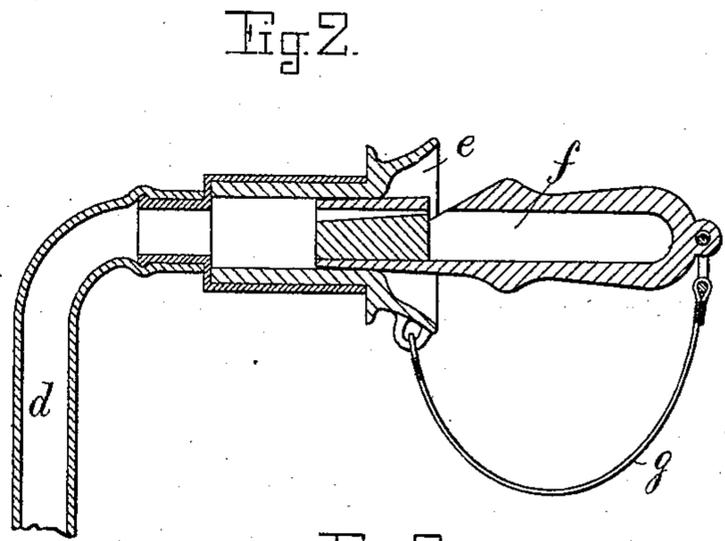
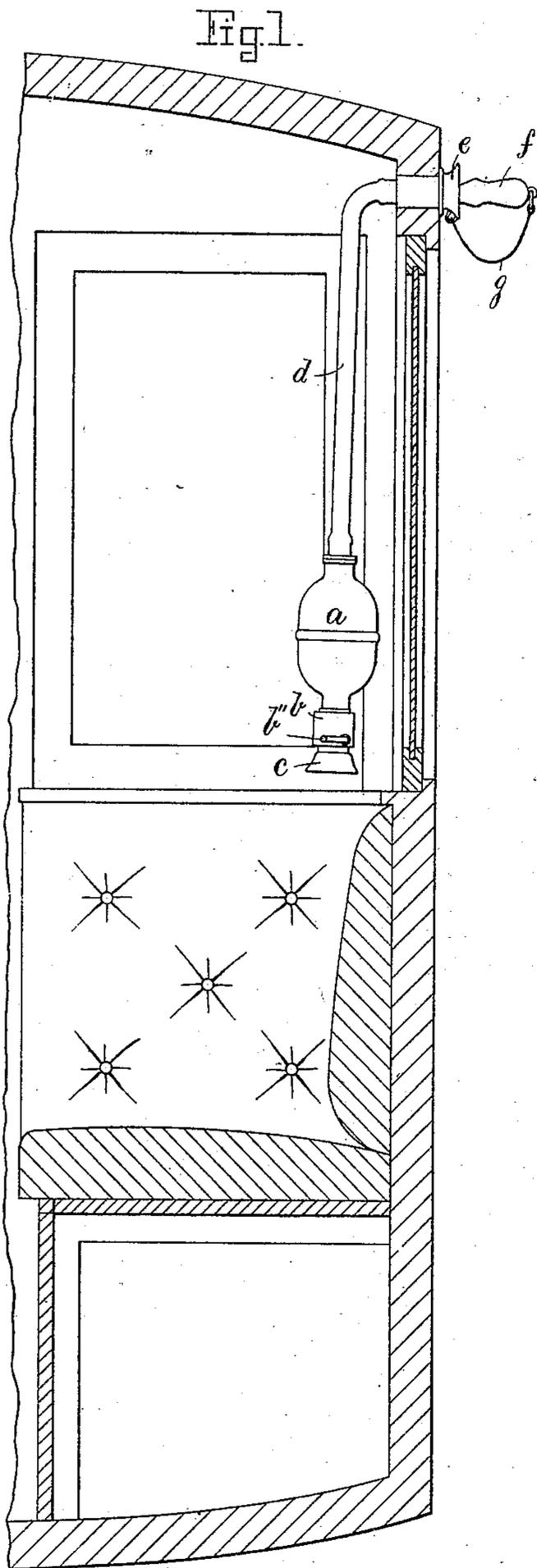


(No Model.)

G. J. QUINSLER.
SPEAKING TUBE APPARATUS.

No. 277,508.

Patented May 15, 1883.



Witnesses
Henry Chadborn.
H. Allen.

Inventor
George J. Quinsler
by *Alban Andrieu, his atty.*

UNITED STATES PATENT OFFICE.

GEORGE J. QUINSLER, OF BOSTON, MASSACHUSETTS.

SPEAKING-TUBE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 277,508, dated May 15, 1883.

Application filed October 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. QUINSLER, 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 Pneumatic Signals; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

This invention relates to improvements in pneumatic signals, and it is particularly well adapted for carriages to establish communication between the occupant of a carriage and the driver, although it is equally useful as a pneumatic signal and speaking-tube for hotels, steamboats, or private residences, or for other purposes where a pneumatic signal and sound-conveyer may be required.

The invention is carried out as follows, reference being had to the accompanying drawings, where Figure 1 represents a side elevation of the improved pneumatic signal as applied to a carriage. Figs. 2 and 3 represent detail sectional views of the invention.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The invention is composed of an elastic hollow rubber bulb, *a*, provided in its lower end with a valve-chamber, *b*, and a mouth-piece, *c*, as shown in Figs. 1 and 3. Within the valve-chamber *b* is located a self-closing valve, *b'*, which is made to close the inner orifice of the mouth-piece *c* by the agency of a spring, in a similar manner to ordinary speaking-tube mouth-pieces, with this difference, that I employ in my device a solid valve, *b'*, instead of a whistle-valve, as ordinarily used in speaking-tubes. The valve *b'* is opened from without by means of the crank-wire *b''*, in a similar manner to ordinary speaking-tube mouth-pieces. The upper end of the bulb *a* is connected to and communicates with the conveyer-

tube *d*, which is preferably made flexible, but may be made rigid, if so desired. The opposite end of the conveyer-tube *d* terminates in a mouth-piece, *e*, into which is normally inserted the detachable pipe, reed, or whistle *f*, which is loosely connected to said mouth-piece *e* by means of a suitable cord or chain or strap, *g*, as shown in Figs. 1 and 2.

In Fig. 1 is shown the invention as applied to a carriage, and its operation is as follows: When the occupant of the carriage desires to signal to the driver, he does so simply by grasping in one hand the bulb *a*, and thus compressing the air within the said bulb and forcing it out through the whistle *f*, that is made to sound to attract the notice of the driver, who then removes the whistle *f* from the mouth-piece *e*, and an open speaking-tube is then established from the inside to the outside of the carriage by the occupant opening the valve *b'* by manipulating its crank-wire *b''*, and in this condition a proper, easy, and practical speaking device is established. When the questions and answers have been made the driver replaces the whistle *f* in the mouth-piece *e* in the position shown in Figs. 1 and 2, and the pneumatic signal is then ready for another call.

What I wish to secure by Letters Patent, and claim, is—

The herein-described pneumatic signal, consisting of the elastic bulb *a*, valve-chamber *b*, valve *b'*, and mouth-piece *c*, in combination with the conveyer-tube *d*, mouth-piece *e*, and detachable reed or whistle *f*, all arranged and combined substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEORGE J. QUINSLER.

Witnesses:

ALBAN ANDRÉN,
HENRY CHADBOURN.