No. 647,478. Patented Apr. 17, 1900.

A. L. CREELMAN.

SPEAKING TUBE MOUTHPIECE.

(Application filed June 27, 1899.)

(No Model.)

Fig. 1.

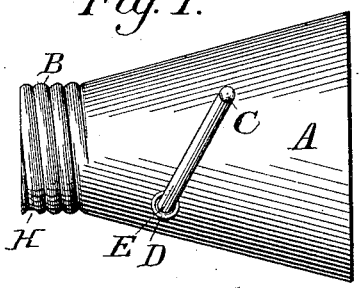


Fig. 2.

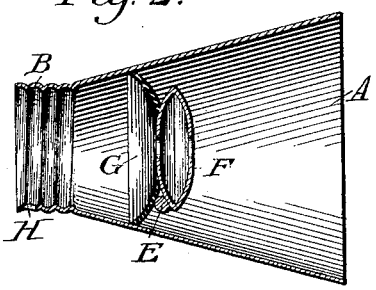


Fig. 3.

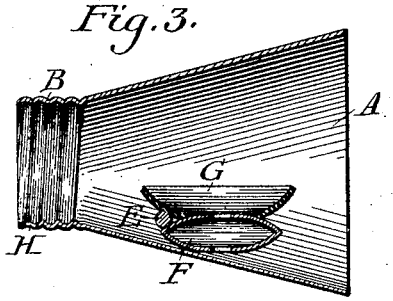


Fig. 4.

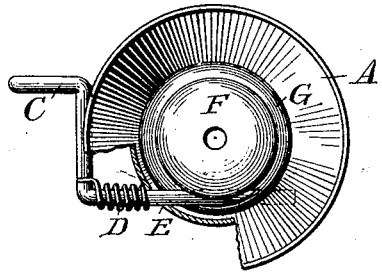


Fig. 5.

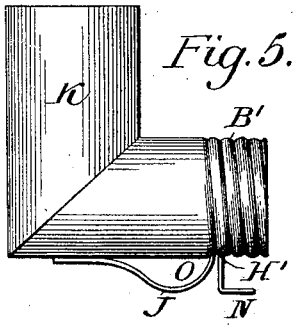
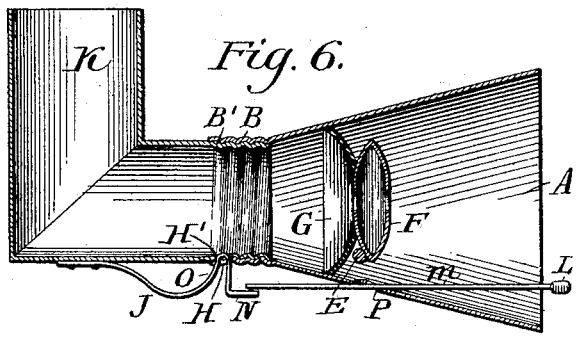


Fig. 6.



Witnesses

E. M. Harvie.

M. E. Brennan.

Inventor.

Alvah L Creelman

UNITED STATES PATENT OFFICE.

ALVAH LEWIS CREELMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILLIAM H. SILLS, OF SAME PLACE.

SPEAKING-TUBE MOUTHPIECE.

SPECIFICATION forming part of Letters Patent No. 647,478, dated April 17, 1900.

Application filed June 27, 1899. Serial No. 722,018. (No model.)

To all whom it may concern:

Be it known that I, ALVAH LEWIS CREELMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Speaking-Tube Mouthpieces, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention has for its object an improvement in the construction of this class of device, and the novelty will be herein set forth, and specifically pointed out in the claims.

Heretofore the attachment between the speaking-tube and the mouthpiece has been made in the form of a telescope and not fastened. Owing to this form of construction the mouthpiece, if not detached by some mischievous person, is more or less liable to turn one way or the other when the handle controlling the whistle is operated upon, much to the annoyance of the user. It has also been customary to have the whistle turn inwardly when manually operated upon, and a shoulder therefore has had to be placed in the funnel outside of the whistle to restrain the spring connected thereto. This shoulder being inserted inside of the mouthpiece materially interferes with the passage of the sound-waves. To overcome this difficulty, I have placed a flange (preferably a flexible one) upon the whistle, which engages the receding sides of the mouthpiece when under tension of the spring-actuated whistle, thereby acting as a movable shoulder, and by my having my whistle manually moved outward instead of inward a clear passage is given to the sound-waves.

In the accompanying drawings, Figure 1 is a side view of the mouthpiece, showing the handle on the outside of the funnel controlling the whistle. Fig. 2 is a sectional view showing the position of the movable whistle when closed. Fig. 3 is a sectional view showing the position of the whistle when opened manually. Fig. 4 is a face view of the whistle with the mouthpiece-funnel broken away from in front of the whistle, showing the whistle with flange attached incased in the funnel. It also shows the arm and spring controlling the whistle. Fig. 5 shows a side view of the speaking-tube with threads thereon. Fig. 6 is a sectional view of the mouthpiece screwed into an elbow of a speaking-tube, showing a spring-actuated locking and releasing device.

Similar letters refer to similar parts.

For attaching the mouthpiece A to the speaking-tube K, I have provided threads B to the smaller end of the mouthpiece A and threads B′ to speaking-tube K.

For fastening the mouthpiece A when screwed onto tube K, I provide a spring-actuated pawl O, which automatically passes through hole H′ in tube K into hole H in mouthpiece A, where it securely locks mouthpiece A and tube K until released, as hereinafter mentioned.

For manually operating the whistle F away from normal, which is against spring D, as shown in Fig. 3, I attach a spring-actuated shaft E, Fig. 4, to which is rigidly attached an arm C. Shaft E passes through the walls of mouthpiece A and has the lower end of whistle F rigidly attached thereto. A hole H is cut in the wall of mouthpiece A and another hole H′ is cut in the elbow of speaking-tube K, both holes being in the threaded portions B B′ when mouthpiece A has been screwed into tube K, and when holes H H′ come opposite each other pawl O, carried by spring J, will drop into holes H H′, and the mouthpiece A and speaking-tube K will be locked.

When it is desired to remove mouthpiece A from tube K, I have placed a small hole P in the wall of the mouthpiece A in the path of spring-actuated pawl O, so that a rod L on dotted line M can be inserted therein, which will engage with the prong N of pawl O and disengage pawl O from holes H H′ as the rod L is pressed inwardly.

The operation of the improvement is as follows: The mouthpiece A is screwed onto speaking-tube K in the ordinary manner. When holes H H′, which are cut in the threaded portion of mouthpiece A and tube K, come opposite each other, pawl O, carried by spring J, will drop into holes H H′, locking the mouthpiece A to tube K, where it will remain until a rod is passed through opening P in

mouthpiece A, engaging with prong N of pawl O and disengaging pawl O from holes H H′ as the rod L is pressed inwardly.

The operation of the whistle is too well known to require repetition here.

Having described my improvements in full, what I claim is—

1. A speaking-tube mouthpiece in combination with a spring-actuated whistle contained therein, said whistle carrying a flexible flange capable of engaging with the inner walls of said mouthpiece, said flange forming a shoulder for deflecting sound-waves toward the center of the whistle when said flange is engaged with said inner walls, as shown and described.

2. A speaking-tube mouthpiece in combination with a spring-actuated whistle contained therein, said whistle carrying a flexible flange capable of engaging with the inner walls of said mouthpiece, said flange forming a shoulder for deflecting sound-waves toward the center of the whistle, said flange-formed shoulder capable of being manually moved outwardly out of the path of sound-waves, as shown and described.

3. A speaking-tube mouthpiece in combination with the threaded end thereof, an opening cut through said threads and the wall thereof, a spring-actuated pawl attached to said speaking-tube operating in said opening; said pawl capable of engaging an opening cut through the threads and wall of a speaking-tube and mouthpiece when said mouthpiece and a speaking-tube have been screwed together, as shown and described.

4. A speaking-tube mouthpiece in combination with the threaded end thereof, an opening cut through said threads and the wall thereof, a spring-actuated pawl attached to said speaking-tube operating in said opening, said pawl being capable of engaging an opening cut through the threads and wall of a speaking-tube and mouthpiece when said mouthpiece and a speaking-tube have been screwed together; a second opening cut through the wall of the funnel of the mouthpiece, a rod manually inserted in said second opening capable of releasing said pawl from said first openings, as shown and described.

ALVAH LEWIS CREELMAN.

Witnesses:
E. M. HARRIS,
M. E. BRENNAN.