(No Model.)

J. WALTER.

SPEAKING TUBE ANNUNCIATOR.

No. 264,977. Patented Sept. 26, 1882.

Fig. 1.

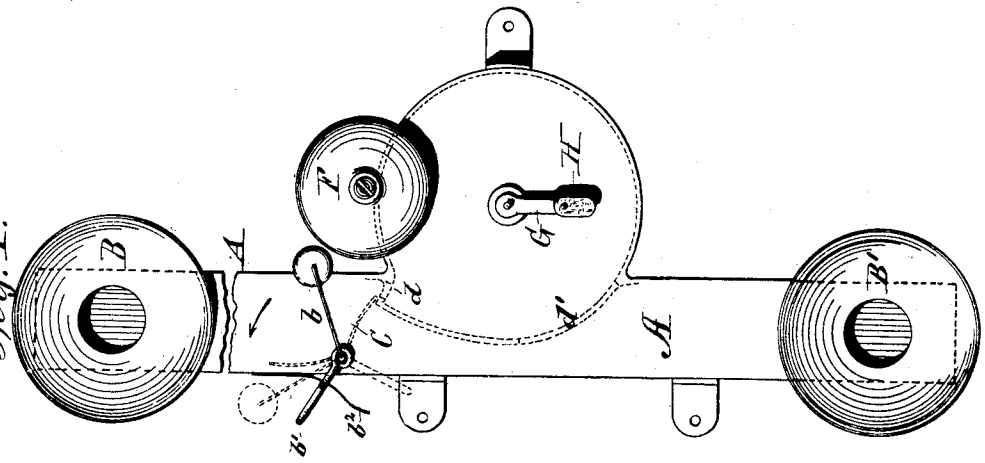


Fig. 2.

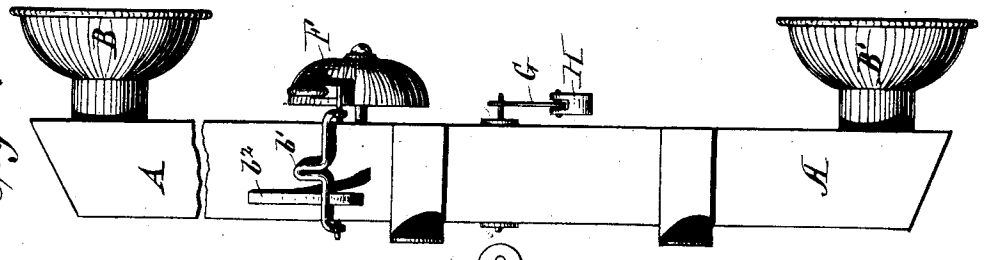
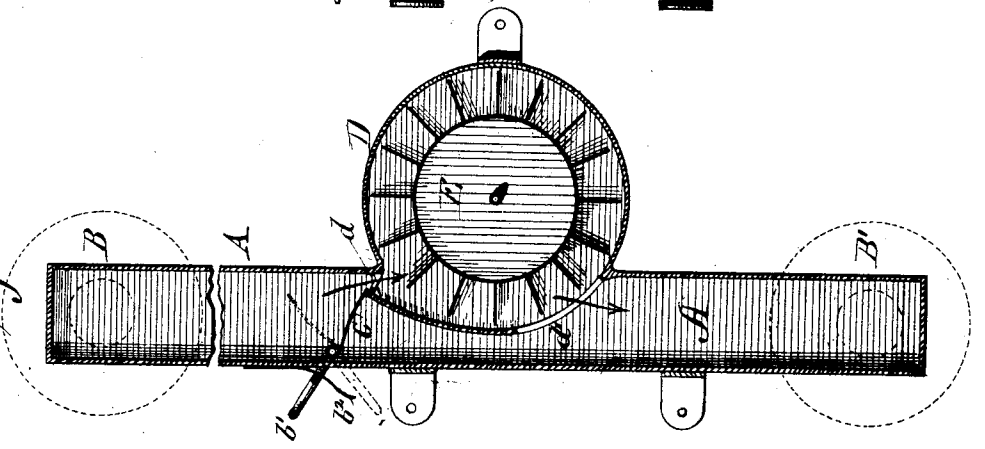


Fig. 3.



WITNESSES:

Fr. H. Rosenbaum

Otto Risch.

INVENTOR

Joseph Walter

BY Paul Goepel.

ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH WALTER, OF NEW YORK, N. Y.

SPEAKING-TUBE ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 264,977, dated September 26, 1882.

Application filed July 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WALTER, of the city, county, and State of New York, have invented certain new and useful Improvements in Speaking-Tube Annunciators, of which the following is a specification.

This invention has reference to an improved annunciator for speaking-tubes; and the invention consists of a speaking-tube having a weighted and spring-acted valve, in combination with a propeller-wheel the casing of which has an air inlet and outlet opening into the speaking-tube, so that the air forced through the tube into the casing operates the wheel and causes a striker attached to the shaft thereof to sound a gong-bell mounted on the casing.

In the accompanying drawings, Figure 1 represents a front elevation of my improved annunciator for speaking-tubes. Fig. 2 is an end elevation of the same, and Fig. 3 a vertical longitudinal section.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a speaking-tube of the usual size and material, which is provided at one end with a mouth-piece, B, at the other end with a mouth-piece, B′, and near each mouth-piece with a pivoted flap-valve, C, to the outer end of whose pivot is applied a weighted arm, *b*, and a handle, *b′*, that is acted upon by a band-spring, b^2, for the purpose of retaining the valve in a partly-open position, so that it offers a greater surface to the air-waves forced through the speaking-tube than when entirely open. A cylindrical casing, D, is arranged near the mouth-pieces B and B′, which casings contain a rotary propeller-wheel, E. Each casing is partially set into the tube and provided with an opening, *d*, near the seat of the valve C, said opening serving to admit air from the tube to the casing. The valve C, when in closed position, rests on the casing D, closing the space between the tube and casing and serving to direct the air thereinto. The air thus conducted into the casing D imparts rotary motion to the propeller-wheel E, and passes then through an outlet-opening, *d′*, in the circumference of the casing, but inside of the speaking-tube, to the latter, so as not to interfere with the rotation of the wheel or check the incoming air. On the casing is mounted a gong-bell, F, in such proximity to the tube A that the weighted arm *b* of the valve C can strike the same and give thereby a preliminary signal. To the shaft of the propeller-wheel is attached, outside of the casing, an arm, G, carrying a pivoted striker, H.

When a person at the end B desires to attract a person to the end B′ he first opens the valve C by pressing upon the handle of the same and blows through the mouth-piece B, so that the air-waves, impinging upon the valve C near the mouth-piece B′, close the valve and throw the weighted arm *b* against the gong F, giving thereby a preliminary alarm or signal. The air then passes through the opening *d* into the casing D and causes the propeller-wheel E to rotate. This rotation of the propeller-wheel causes the striker H to come in contact with the gong-bell F, whereby the announcement is made. When the person addressed reaches the mouth-piece B′ in response to the call he opens the valve C by pressing upon the handle *b*, and thereby opens the tube A for oral intercourse. When a person at the end B′ desires to communicate with a person at the end B he first opens the valve C by pressing upon the handle *b′*. He then blows through the tube, the air-waves closing the valve C near the end B, whereby the annunciator at the end B is operated in the same manner as before described respecting the annunciator at the end B′. Should no one respond to the signal-call of the annunciator, the valve near the opposite end will indicate by remaining in a closed position that a call had been made, forming thereby visible evidence that the party at one end had made an attempt to establish communication. After the signal has been given it is necessary that the responding party open the valve C by pressing upon its handle, as shown in dotted lines in Fig. 1, after which communication can be made in the usual manner through the tube. The valve C, on being released, is retained by the pressure of the spring b^2 on its handle *b* in a partly-open position, as shown in dotted lines in Fig. 3, whereby the valve offers a greater surface to the air-waves passing through the tube in giving the alarm.

In this manner an improved annunciator for speaking-tubes is furnished which is equally

distinctive in its calls, but considerably less annoying than the signal-whistles heretofore in use.

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

1. The combination of a speaking-tube, a propeller-wheel, a casing for said wheel, provided with an air-inlet and an air-outlet communicating with the speaking-tube, a bell, a striker connected to the shaft of said wheel, and a weighted valve adapted to close the air-inlet opening of the tube and direct the air into the wheel-casing, substantially as described.

2. In an annunciator for speaking-tubes, the combination of the tube A, valve C, having an exterior weighted arm or striker, *b*, a handle, *b'*, and a bell or sounding device, E, arranged sidewise of the tube and within reach of the arm *b*, so as to give a preliminary signal when the valve is closed by blowing into the tube, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOSEPH WALTER.

Witnesses:

PAUL GOEPEL,

CARL KARP.