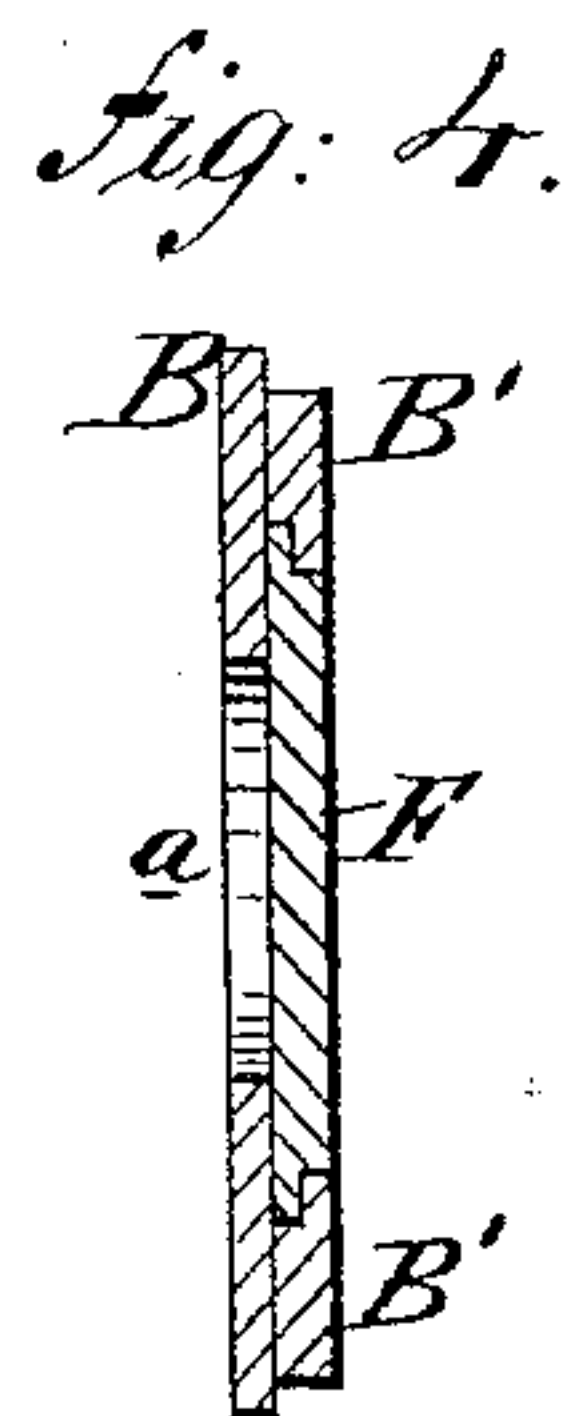
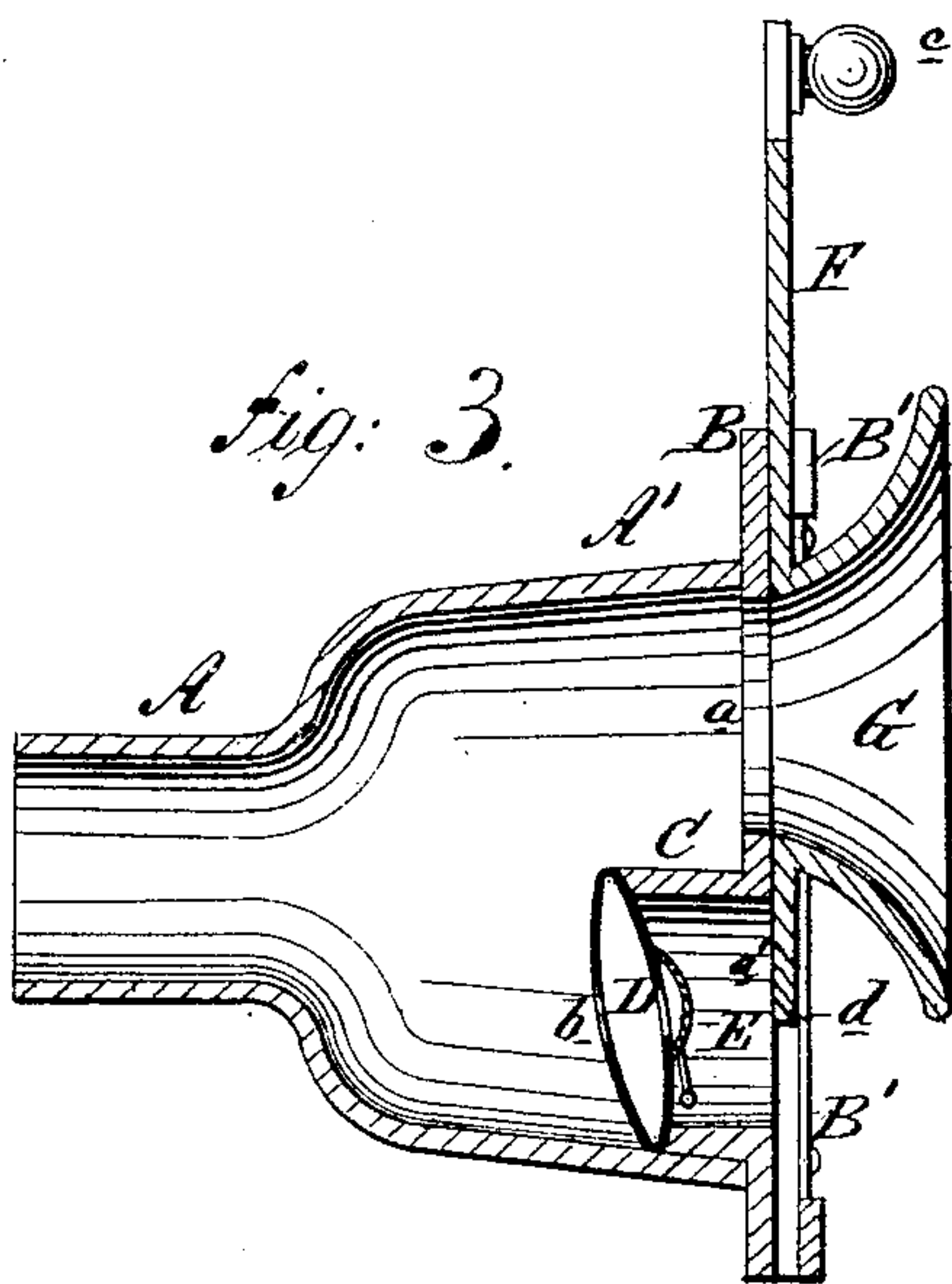
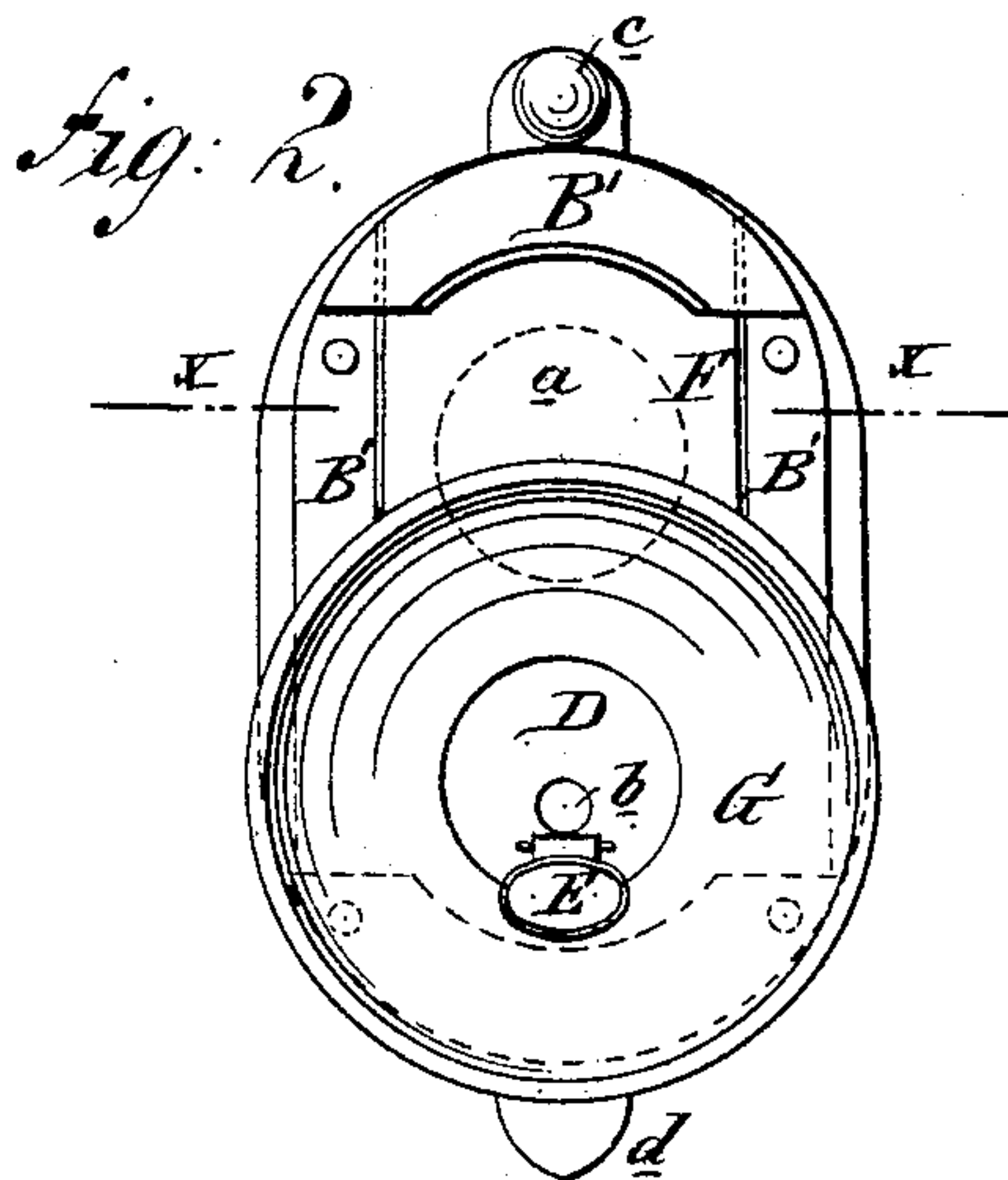
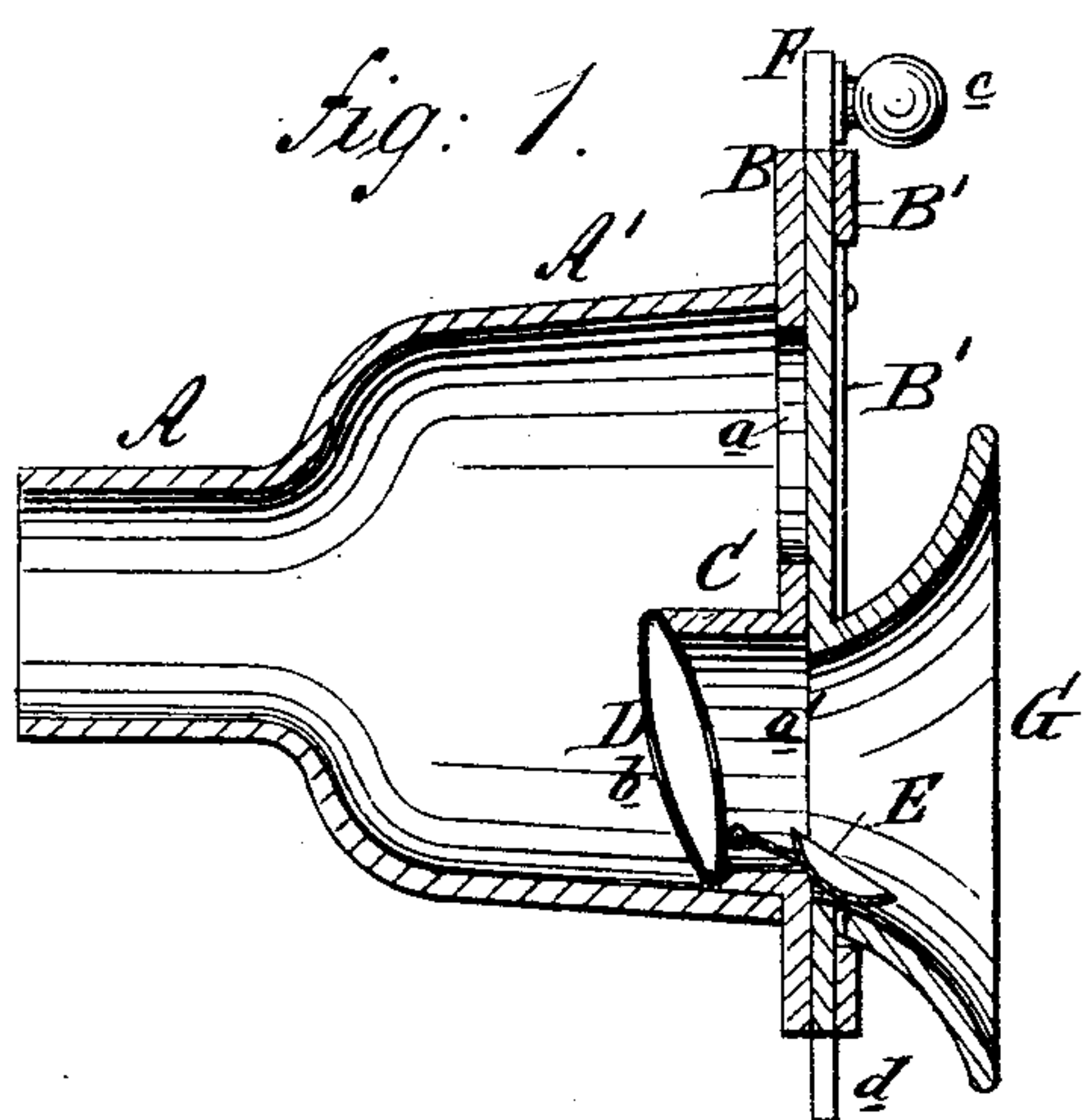


(No Model.)

G. F. RICHTER.  
Speaking Tube Mouth Piece.

No. 239,845.

Patented April 5, 1881.



WITNESSES:

A: Schehl.  
C: Sedgwick

INVENTOR:

G. F. Richter  
BY *Mum & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE F. RICHTER, OF NEW YORK, N. Y.

## SPEAKING-TUBE MOUTH-PIECE.

SPECIFICATION forming part of Letters Patent No. 239,845, dated April 5, 1881.

Application filed February 17, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. RICHTER, of the city, county, and State of New York, have invented a new and Improved Speaking-Tube Fixture, of which the following is a specification.

In mouth-pieces of ordinary construction that are designed to be attached to speaking-tubes the indicator is hinged on the top thereof, so as to be raised vertically and thrown back by a puff of the breath of the operator; but this requires a considerable effort of the lungs, especially if the indicator be closed by a spring, as is usually the case, while if the indicator is not thus automatically closed it must be closed by hand, in order to be in position for renewed signaling—a matter that is apt to be neglected, so that the indicator is often of no use as a signal.

The object of this invention is to overcome these objections.

The invention consists of an indicator that opens and closes horizontally, and in combination therewith of a vertically-adjustable mouth-piece that when adjusted for use closes said indicator, so that it can fall at the slightest puff of the operator, all of which will be hereinafter set forth.

Figure 1 is a sectional side elevation of the device with indicator open. Fig. 2 is a front elevation of the same. Fig. 3 is a sectional side elevation of the device with the indicator closed; and Fig. 4 is a transverse section on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a section of tube enlarged into an air-chamber, A', on the front of which is fixed a vertical plate, B, provided with two orifices, *a a'*, one above the other, and communicating with the interior of the air-chamber A'. Around the lower orifice, *a'*, is a neck or collar, C, extending horizontally into the chamber A' a short distance, and having its inner end closed by an ordinary whistle, D, that is fixed with its upper edge inclining slightly backward from the perpendicular.

On the outer face of the whistle D, below the orifice *b* thereof, is hinged the indicator E in such a manner that when turned up and

closed, as shown in Fig. 3, it will retain its position against the face of the whistle D because of the inclined position of the latter.

On the face of the plate B, about the edges thereof, is secured a metallic frame, B', that forms, in combination with said plate B, a grooved or channeled way for the vertical movement of the slide F, to the lower end of which the mouth-piece G is attached. When this mouth-piece G is not in use it rests in the position shown in Figs. 1 and 2, with its orifice opposite the lower orifice, *a'*, of the air-chamber A', or, in other words, opposite the whistle D and indicator E, so as to permit the falling of the said indicator E, as shown in Figs. 1 and 2, from a puff from an operator at the other end of the speaking-tube.

In replying to the signal given by the fallen indicator E the operator at this end of the speaking-tube will take hold of the knob *c* of the slide F and draw the latter vertically upward until the mouth-piece G is opposite and coincident with the upper orifice, *a*, of the air-chamber A', through which he can then communicate through the said speaking-tube. As the slide and mouth-piece F G are so drawn up the lower inner edge of the latter comes in contact with the indicator E and raises and closes it in place against the whistle D, as shown in Fig. 3, and when the said slide and mouth-piece F G are at their extreme elevation a finger, *d*, at the bottom of the slide F prevents the said indicator E from being thrown open and down, so that when the said slide and mouth-piece F G are restored to their primary position, as shown in Figs. 1 and 2, the indicator E will remain closed until thrown open by the action of the operator at the opposite end of the speaking-tube.

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

1. An improved speaking-tube fixture constructed substantially as herein shown and described, consisting of vertical plate B, having orifices *a a'*, and provided with collar C, carrying whistle and indicator D E, and slide with attached mouth-piece F G, arranged and operated as set forth.

2. The combination, with the tube A and



air-chamber A', of the plate B, having orifices  
a a', and provided with horizontal collar C, car-  
rying whistle and indicator D E, frame B', and  
slide F, having attached mouth-piece G, sub-  
stantially as herein shown and described.

3. The combination, with the sliding mouth-  
piece G, of a whistle, D, inclined forward to-  
ward the upper end, and having an indicator  
hinged at the lower end, to cover, when closed,  
the orifice b, and when open to project into  
the said mouth-piece, as and for the purpose  
described.

4. In a speaking-tube fixture, the combina-  
tion, with the whistle D and hinged indicator  
E, of the projecting finger d, arranged on the  
sliding mouth-piece G, as and for the purpose  
specified.

G. F. RICHTER.

Witnesses:

I. I. STORER,

C. SEDGWICK.