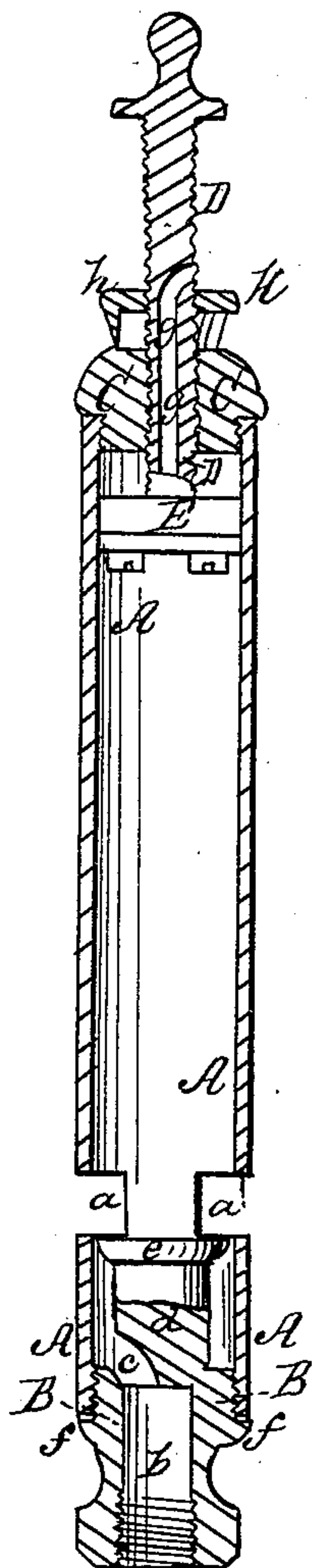
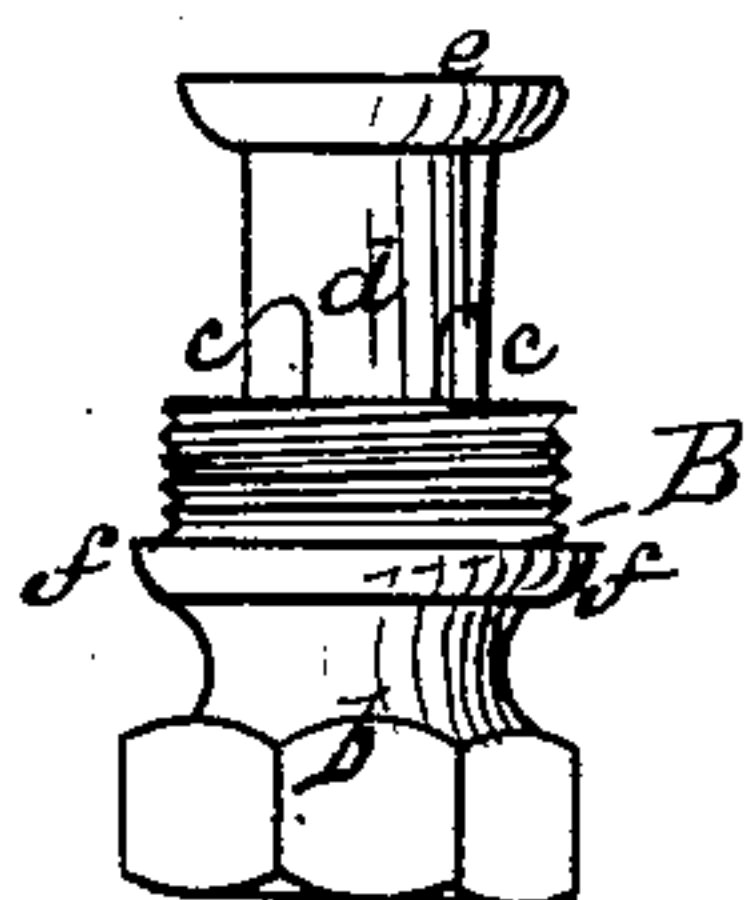


*B. Weinmann,*  
*Steam-Boiler Indicator.*  
*N<sup>o</sup> 84,239. Patented Nov. 17, 1868.*

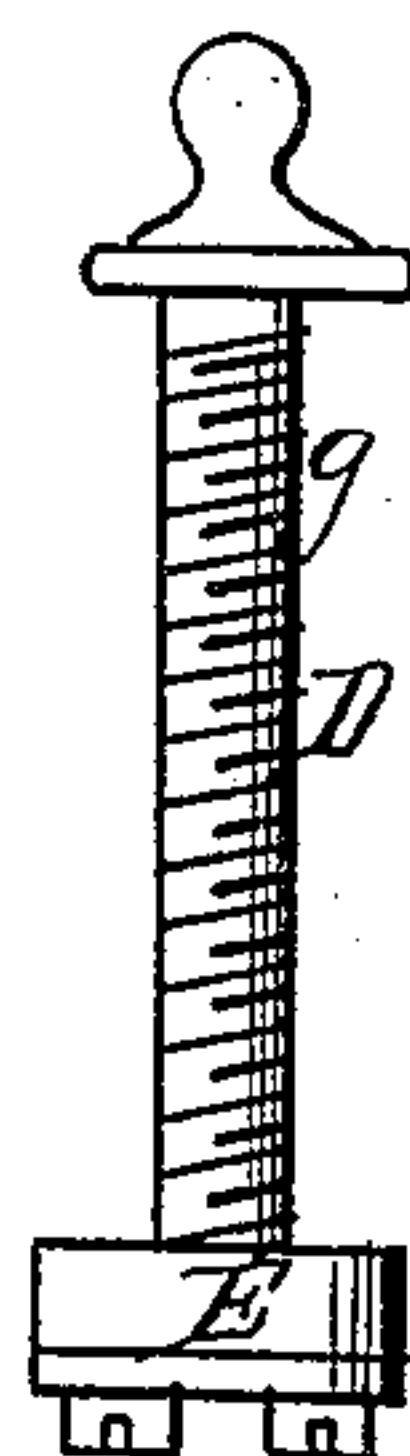
*Fig 1*



*Fig. 2*



*Fig. 3*



*Witnesses;*

*Wm A Morgan*  
*G. C. Cotton*

*Inventor;*

*B. Weinmann*  
*per Munnell*  
*Attorneys*



BERNHARD WEINMANN, OF CINCINNATI, OHIO.

*Letters Patent No. 84,239, dated November 17, 1868.*

**IMPROVEMENT IN STEAM-WHISTLES.**

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern :*

Be it known that I, BERNHARD WEINMANN, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a new and useful Improvement in Steam-Whistles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a vertical sectional view of my improved steam-whistle.

Figure 2 is a side view of the lower stopper.

Figure 3 is a side view of the upper piston.

Figure 4 is a perspective view of the jam-nut.

Similar letters of reference indicate like parts.

This invention relates to a steam-whistle, which is so constructed that the sound produced in it can be regulated at will.

The invention consists in the construction of both ends of the tube of the whistle, so as to render them adjustable, and thereby make the length of the interior of the tube variable.

A, in the drawing, represents the tube of the steam-whistle, open at both ends, and provided with one or more apertures, *a*, in its side, near the lower end.

The lower end of the tube is closed, by means of a screw-plug, B, which has a shoulder, *f*, to fit against the lower end of A, and a perforated shank, *b*, to fit upon the tube or pipe, through which the steam is conveyed to the whistle.

The plug B has an upward-projecting stem, *d*, that carries at its upper end a projecting head or flange, *e*.

The head is but little smaller than the inside of the tube, so as to leave a very narrow annular steam-passage as usual.

The steam enters from the pipe through the tubular

shank *b*, and through passages *c*, connecting with the same, into the space around the stem *d*, and passes then through the annular narrow space formed by the head *e*, to strike against the upper edge of the aperture *a*.

The upper end of the tube A is closed by means of a perforated nut, C, through which a central screw or rod, D, is fitted.

The lower end of the screw D carries a piston, E, fitting close in the tube A. The piston can thus be adjusted higher or lower at will, to make the interior of the tube longer or shorter, and to thereby vary the sounds produced by the whistle.

The piston and rod D are perforated at *g*, to let the steam escape.

By means of the jam-nut *h*, the piston can be locked in any desired position.

Instead of being fastened to a screw, the piston may be suspended from a rod, which can slide up and down through the head C, and be locked by a horizontal pin or otherwise.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The adjustable piston E, arranged in the upper end of a steam-whistle, substantially as herein shown and described.

2. A steam-whistle, consisting of the tube A, plug B, which has the stem *d*, head *e*, and the adjustable piston E, all constructed substantially as herein shown and described.

BERNHARD WEINMANN.

Witnesses:

M. POHLMANN,

CHRIS. VON SEGGERN.