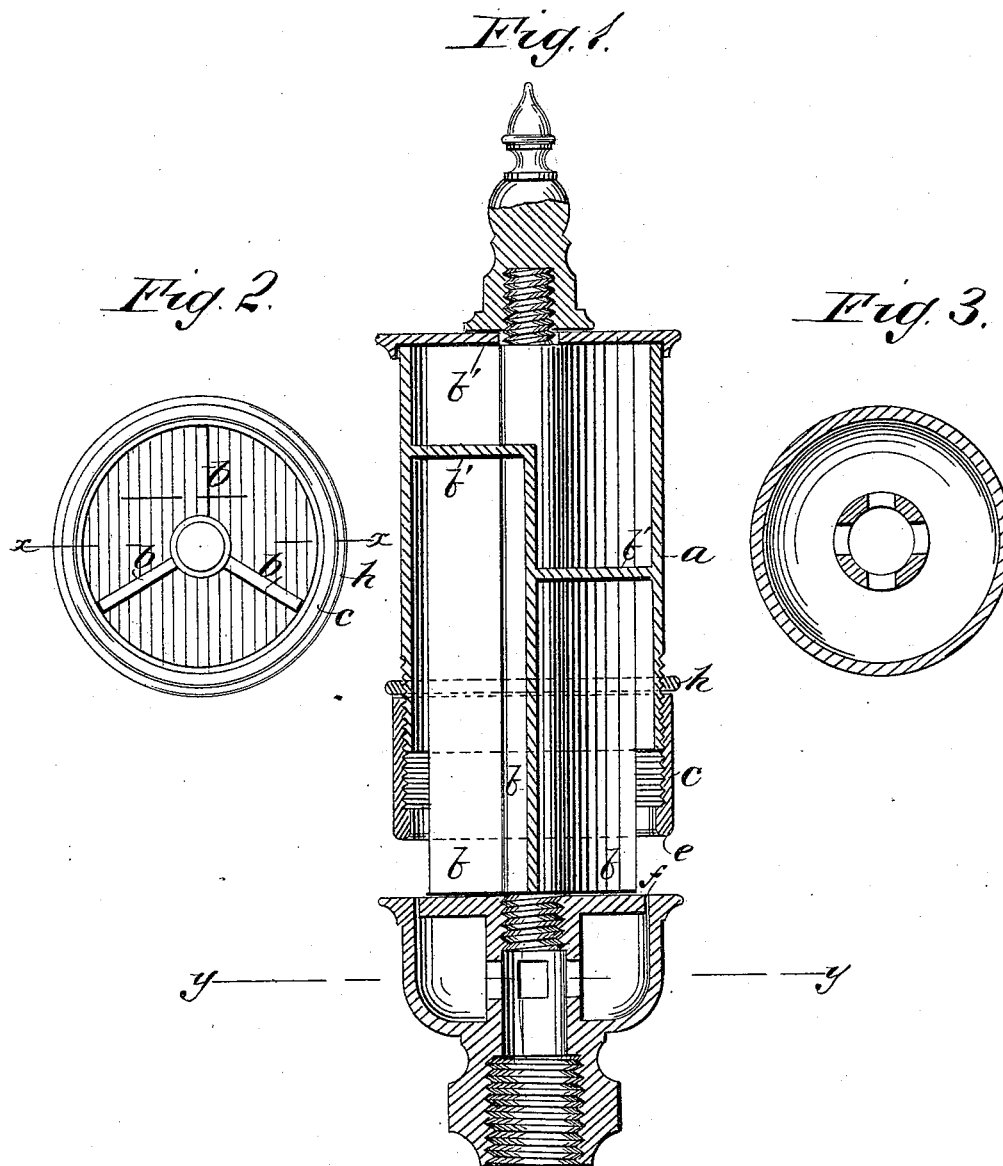


(No Model.)

J. EINIG.  
STEAM WHISTLE.

No. 304,511.

Patented Sept. 2, 1884.



WITNESSES:  
*Francis M. Arde.*  
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# UNITED STATES PATENT OFFICE.

JOHN EINIG, OF JACKSONVILLE, FLORIDA.

## STEAM-WHISTLE.

SPECIFICATION forming part of Letters Patent No. 304,511, dated September 2, 1884.

Application filed April 24, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN EINIG, of Jacksonville, in the county of Duval and State of Florida, have invented a new and useful Improvement in Steam-Whistles, of which the following is a full, clear, and exact description.

My invention consists of an extension contrivance of the lower end of the bell of a steam-whistle, the object of which is to enable the same to be shifted nearer to or farther from the nozzle, as may be required, to adapt it to high or low steam in the adjusting of the whistle for producing sounds most agreeable to the ear.

The improvement is adapted to any ordinary whistle, but is more particularly designed for use in connection with a whistle having a bell that is divided into two or more longitudinal chambers of different length, constituting a chime-whistle, producing different sounds which blend in harmonious and musical union, more agreeable to the ear than the common single tone; all as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of my improved steam-whistle on line *x x* of Fig. 2. Fig. 2 is an end view of the lower end of the bell. Fig. 3 is a horizontal section on line *y y* of Fig. 1.

To the lower end of the bell *a*, which is here represented with three longitudinal chambers of different lengths, formed by partition *b* and separate head-plates *b'*, one of which heads may be the top of the bell, I fit a wide ring, *c*, to screw up and down within a considerable range for shifting the edge *e*, on which the steam impinges, toward and from the nozzle *f*, according as the nozzle is to be used for high or low steam, and above the ring *c*, I fit a check-ring, *h*, to jam against the adjusting-ring *c*, for

holding it securely in any position to which it may be set, and thus provide an extensible bell, the edge of which may be readily set lower down for low steam and be shifted up for high steam, which it is desirable to be able to do readily at any time, as when steam is low the jet leaving the annular opening of the nozzle has less force and expands or spreads quickly, so that if the edge *e* of the bell is too high the effect of the jet is very feeble, because the jet spreads and escapes outside of the bell, whereas if the said edge of the bell be sufficiently low the sound will be much stronger and clearer, and if the bell be too low for high steam, which does not spread as low down as the jet of lower pressure, the jet will not expand sufficiently at the point of impingement on the bell, and too much of the steam will go inside of the bell for clearness of the sound.

While I prefer the check-ring for securing the adjustable part of the bell, I do not mean to limit myself to that device, but will, when preferred, employ a set-screw or other suitable mechanical contrivance for the purpose.

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

1. The combination, with the bell *a*, having its lower end screw-threaded and provided with longitudinal chambers having different lengths, of the screw-threaded ring *c*, and means, substantially as described, for locking said ring in position, as set forth.

2. A steam-whistle having the lower end of the bell fitted to screw up and down on the upper part, and provided with a check-ring to set the adjustable part in a fixed position, substantially as described.

JOHN EINIG.

Witnesses:

SAML. W. FOX,

JOHN GEORGE FORTUNE.