

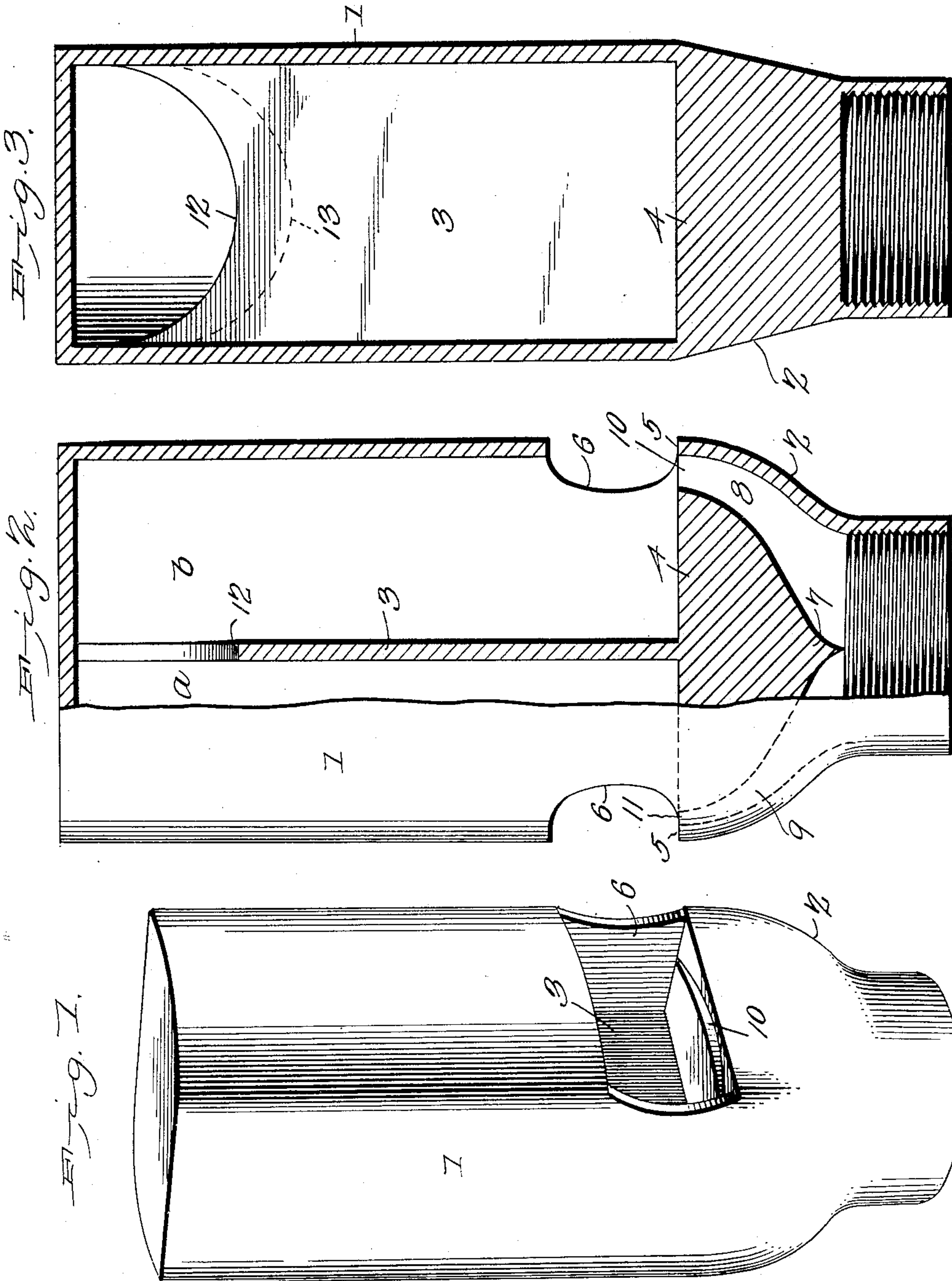
No. 742,375.

PATENTED OCT. 27, 1903.

I. ANDERSON.  
CHIME WHISTLE.

APPLICATION FILED OCT. 9, 1902.

NO MODEL.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## CHIME-WHISTLE.

**SPECIFICATION** forming part of Letters Patent No. 742,375, dated October 27, 1903.

Application filed October 9, 1902. Serial No. 126,606. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC ANDERSON, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented a new and useful Chime-Whistle, of which the following is a specification.

This invention relates to chime-whistles.

The object of the invention is to provide a chime-whistle in which all of the parts are integral and made in one solid casting, thereby reducing the cost of production of the device to a minimum and obviating danger of loss of parts in use.

A further object is to provide simple means whereby the pitch or tone of the chimes may without changing the structural arrangement of the parts of the whistle be varied as desired.

With these and other objects in view, as the nature of the invention is better understood the same consists in the novel construction and combination of parts of a chime-whistle, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, there is illustrated one form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied as to shape, proportion, and exact manner of assemblage without departing from the spirit thereof.

In the drawings, Figure 1 is a view in perspective of a chime-whistle embodying the essential features of the present invention. Fig. 2 is a view in elevation, partly in section. Fig. 3 is a view in sectional elevation taken at right angles to Fig. 2.

Referring to the drawings, 1 designates the bell or shell of the whistle, which is herein shown as approximately rectangular in cross-section, although it may be otherwise contoured, and 2 the bowl, the lower end of which is internally threaded for connection with a steam or other pipe for supplying fluid under pressure. Arranged transversely of the bell and separating it into two chambers *a* and *b* is a partition 3, the lower end of which ter-

minates with the bottom 4, the same being disposed in alinement with the lips 5, which, as usual, discharge into sounding-orifices 6. The under side of the bottom is formed into a pointed steam-deflector 7, the sides of which are arranged on compound curves, the apex of the steam-deflector being disposed to one side of the center of the bowl to present two channels or ports 8 and 9, respectively, which terminate in blowing-orifices 10 and 11. Owing to its greater capacity as compared with the channel 9 and the greater area of the blowing-orifice 10 and the increased cubical capacity of the chamber *b*, resulting from disposing the partition 3 to one side of the center of the bell or shell, the chamber *b* will produce a deeper tone or sound than that of the chamber *a*. In practice the steam or other fluid entering the chambers rushes violently to the top of the bell, thence is deflected by the top and by the partition, and returns and escapes through sounding-orifices, producing the sound.

To increase the depth of the tone, and thus its penetrating and carrying power, the upper portion of the partition is cut away in a semicircle, as shown in full lines at 12, which will cause the two chimes to produce relatively deep and shrill tones. Should it be desired to deepen the pitch of the two chimes, the semicircular orifice may be increased in size, as indicated by dotted lines at 13. Where the partition extends from the bottom to the top of the bell or shell and is imperforate, the tone produced by the chimes is shrill, but is unaccompanied by any roaring sound; but by the provision of the semicircular orifice described the pitch of the tone remains practically the same, but there is imparted a roaring or vibrating quality, which will cause the sound to carry farther and be more penetrating in character. In manufacturing these whistles the pitch or tone will be accurately ascertained and the semicircular orifice in the partition be made accordingly, so that the purchaser by stating about the tone he desires the chime to have can be readily supplied.

The whistle is made of one piece of metal, and is thus cheaply and readily produced, and while possessing all of the qualities of a whistle employing reeds obviates in a simple



and satisfactory manner all of the objections inherent to such devices.

Having thus described the invention, what I claim is—

- 5 1. A chime-whistle having a vertically-disposed partition provided with an unobstructed orifice at the top.
2. A chime-whistle having the lower portion of its bell provided with sounding-openings, and a partition housed by the bell and  
10 provided at its upper end with a semicircular orifice.
3. A chime-whistle having a partition provided at its upper end with an orifice and at  
15 its lower end with a pointed steam-deflector.
4. A chime-whistle provided at its lower portion with sounding-openings and having a partition terminating in a steam-deflector provided with curved sides merging into a down-  
20 wardly-disposed point, the space between the sides of the deflector and the walls of the bowl constituting fluid-conveying ports.
5. A chime-whistle comprising an integral

structure consisting of a bell terminating in its lower portion in a bowl, and a partition 25 terminating in a pointed steam-deflector, the upper surface of which is disposed in alinement with the sounding-orifices.

6. A chime-whistle comprising a bell having a bowl at its lower end and provided in its 30 sides with sounding-orifices, a vertically-disposed partition having its upper portion provided with an orifice, and its lower portion terminating in a downward-pointed steam-deflector having curved sides spaced from the 35 sides of the bowl to present fluid-channels, the upper face of the steam-deflector being disposed in alinement with the lower walls of the sounding-orifices.

In testimony that I claim the foregoing as 40 my own I have hereto affixed my signature in the presence of two witnesses.

ISAAC ANDERSON.

Witnesses:

E. P. WHALEY,  
R. CROFOOT.