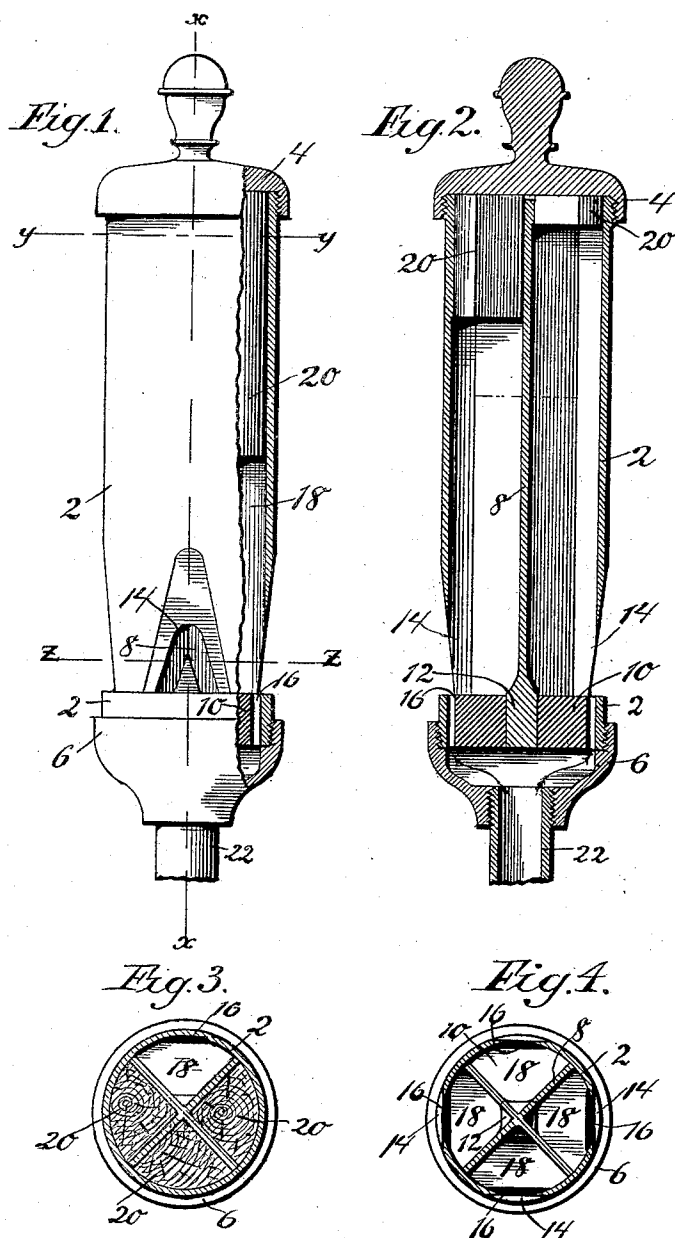


(No Model.)

F. M. CURRAN.
STEAM CHIME WHISTLE.

No. 468,793.

Patented Feb. 16, 1892.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK M. CURRAN, OF ST. PAUL, MINNESOTA.

STEAM CHIME-WHISTLE.

SPECIFICATION forming part of Letters Patent No. 468,793, dated February 16, 1892.

Application filed April 28, 1891. Serial No. 390,805. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. CURRAN, of St. Paul, Ramsey county, Minnesota, have invented certain Improvements in Steam Chime-Whistles, of which the following is a specification.

My invention relates to improvements in steam-whistles, particularly the type known as "locomotive whistles," its object being to provide a whistle which will sound several musical tones simultaneously, so as to produce a chord or chime, and also means for changing the several tones to produce any desired chord at will.

To this end my invention consists in providing a cylindrical bell divided longitudinally by partitions to form chambers therein, conic sections being cut out of the wall of the bell to form ports or openings into all of the chambers, the end of the bell being closed by a disk having segments cut from the same to form inlet-ports for the steam to all of the chambers. The chambers are closed by means of wooden plugs inserted therein to any desired distance, thus determining the length of the chambers and the tone produced by each, a cap being screwed upon the end of the bell to hold the plugs in position.

My invention further consists in the construction and combination hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is an elevation of my improved whistle, part of the side wall being broken away to show the interior construction. Fig. 2 is a central longitudinal section of the same on line *xx* of Fig. 1. Fig. 3 is a cross-section of the same on line *yy* of Fig. 1, and Fig. 4 is a similar cross-section on the line *zz* of Fig. 1.

In the drawings, 2 represents the bell, formed preferably as a hollow cylinder, upon the upper end of which is screw-threaded the cap 4. To the bottom is similarly screw-threaded the cup 6, to which is connected the steam-pipe 22. Preferably cast integrally with the bell are radiating partitions 8, running longitudinally of the bell, thus forming chambers 18 between the partitions and wall of the bell. The lower end of the bell is closed by the plug or disk 10, which is fitted upon and held

in position by a squared post or projection 12, extending downward from the partitions, as shown. A conic section is cut from the lower end of the bell to form an opening or port 14 into each of the chambers. Segments are also cut off from the periphery or edge of the disk 10 to form ports leading from the cup 6 upward to the chambers. Arranged in the chambers 18 are wooden plugs 20 of different lengths, which determine the tones of the several whistles formed by the different chambers. These plugs are fitted into the chambers by removing the cap 4, driving them into the chambers until the desired series of tones is secured, then cutting them off flush with the top of the bell and securing them in place by screwing on the cap 4. If desired at any time, the cap can be removed, the plugs readjusted in position in the chambers or removed and others of different lengths substituted, so as to secure tones of different pitch. By this means I am able to provide a whistle which can be arranged and readjusted at will to produce any desired chime or chord.

I claim—

1. In a whistle, the combination, with the cylindrical bell, of longitudinal partitions arranged therein, forming independent chambers, inlet and outlet ports for each of said chambers, adjustable sliding plugs of varying lengths inserted in said chambers and having their upper ends adjacent to the ends of the chambers to be controlled from the upper end of the bell, and a removable cap at the upper end of the bell for holding said plugs in place, substantially as described.

2. In a whistle, the combination, with the cylindrical bell, of longitudinal partitions arranged therein, forming independent chambers, inlet and outlet ports for each of said chambers, the disk 10, fitted upon and held in position by a squared post 12, extending downward from the partitions, adjustable plugs of different lengths fitting in said chambers, and a cup to the end of said bell to hold said plugs in place, substantially as described.

In testimony whereof I have hereunto set my hand this 23d day of April, 1891.

FRANK M. CURRAN.

In presence of—

T. D. MERWIN,
WARREN CARPENTER.