(No Model.)

F. L. JOHNSON.

BICYCLE WHISTLE.

No. 396,821. Patented Jan. 29, 1889.

Fig. 1.

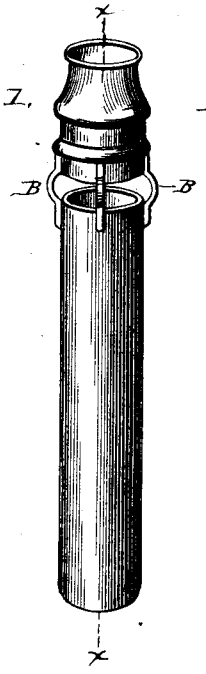


Fig. 2

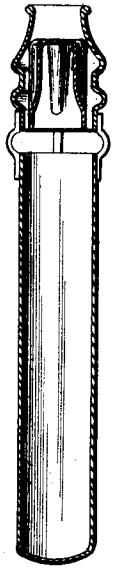


Fig. 3.

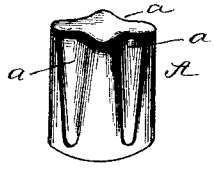


Fig. 4.

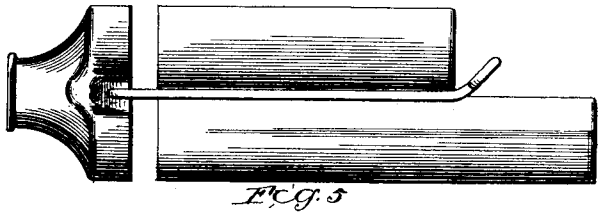
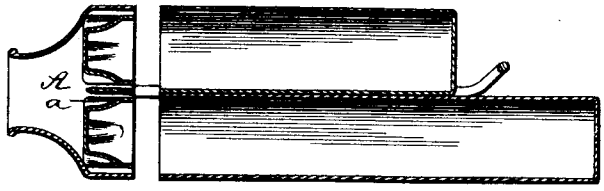


Fig. 5



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UNITED STATES PATENT OFFICE.

FREDERICK L. JOHNSON, OF WALLINGFORD, CONNECTICUT.

BICYCLE-WHISTLE.

SPECIFICATION forming part of Letters Patent No. 396,821, dated January 29, 1889.

Application filed May 16, 1888. Serial No. 274,077. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK L. JOHNSON, a citizen of the United States, residing at Wallingford, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Bicycle-Whistles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to whistles, and has for its object to improve this class of devices, whereby the loudest possible sound can be produced with a minimum expenditure of force; and to this end the improvement consists in the peculiar construction and combination of the parts, which hereinafter will be more fully described and claimed, and shown in the drawings, in which—

Figure 1 is a perspective view of a single barrel whistle of my invention; Fig. 2, a vertical section on the line X X of Fig. 1; Fig. 3, a perspective view of the valve; Fig. 4, a side view of a double-barrel whistle embodying my invention; Fig. 5, a central longitudinal section of the whistle shown in Fig. 4.

The salient feature of the invention is the valve A, which is placed within the mouth-piece of the whistle and has its upper outer periphery dented in to form the air-channels *a*. This valve is a short tube having its upper end closed, the end and sides being dented as shown. The valve is held in the mouth-piece of the whistle by a drop of solder, which is placed between the valve and the sides of the mouth-piece.

The mouth-piece of the whistle is held some distance away from the barrel, but in alignment therewith, and is held thereto by the arch-shaped stays B, which are placed at intervals around the barrel in a single-barrel whistle and between the barrels of a double-barrel whistle. The lower edge of the valve is about in the same plane as the lower end of the mouth-piece, and a narrow space is left between the edge of the valve and the wall of the mouth-piece.

The purpose of the indentations *a* in the tubular valve is to form ducts or channels for the passage of air or other medium for sounding the whistle. This is an important feature, because if the valve preserved its tubular form throughout its length there would be no opening for the passage of the air from the mouth-piece to the barrel, because the said mouth-piece is contracted at its upper end, which end, conforming and approaching close to the upper end of the tubular valve, would close the mouth-piece just as effectually as a stopper. The indentations, however, preclude a closing of the mouth-piece and afford an unobstructed passage for the air. By having the indentations the resisting-surface of the upper end of the valve is reduced to some considerable extent. This is another item to be taken into consideration.

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

1. The herein shown and described whistle, composed of a barrel, a mouth-piece having its lower edge of exactly the same size as and in direct line with the barrel, exterior arch-shaped stay-pieces connecting the mouth-piece and the barrel, the barrel being wholly unobstructed throughout its length and closed at the end opposite the mouth-piece, and a valve supported entirely in the mouth-piece and having its edge in the plane of the lower edge of the mouth-piece and having a continuous annular space between the edge of the valve and the wall of the mouth-piece, substantially as described.

2. In a whistle, the combination, with the barrel and the mouth-piece, of the exterior arch-shaped stays connecting the mouth-piece with the barrel, substantially as set forth.

3. In a whistle, the combination, with the barrel and the mouth-piece having its upper end contracted, of the tubular valve fitted in the mouth-piece and having the sides at its upper end dented in, substantially as described, for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK L. JOHNSON.

Witnesses:
W. J. MORSE,
O. B. LANE.