

(No Model.)

W. N. BEARDSLEY & A. D. MOULTON.
MOUTH WHISTLE.

No. 497,759.

Patented May 23, 1893.

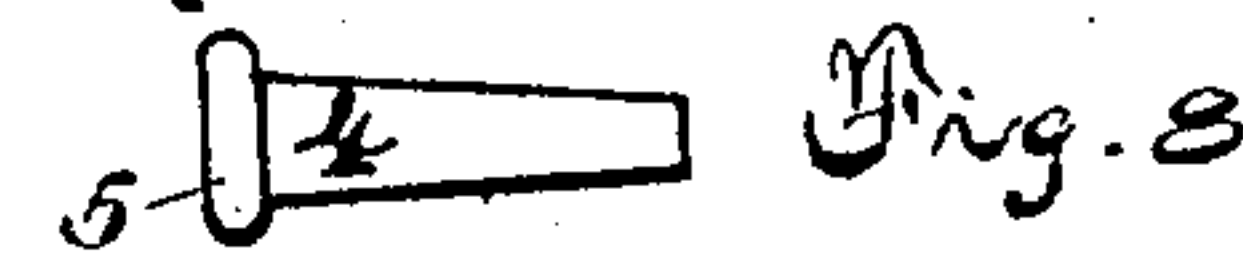
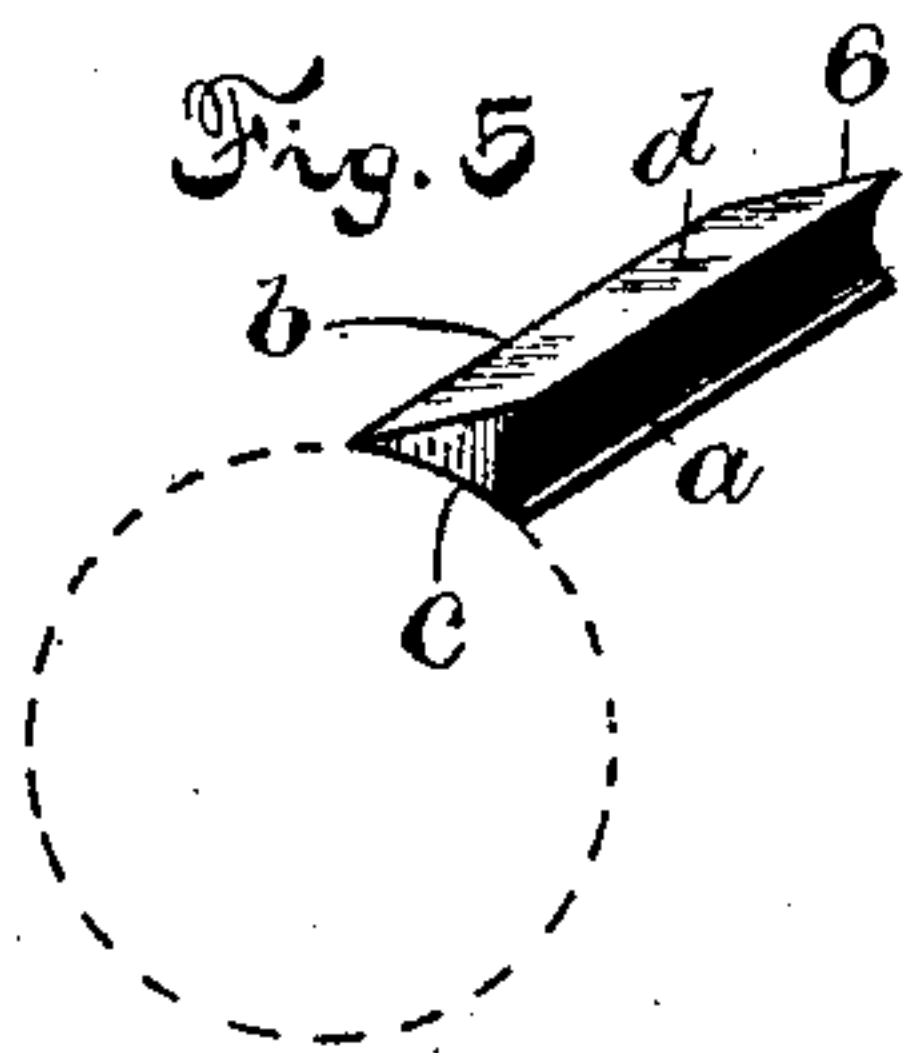
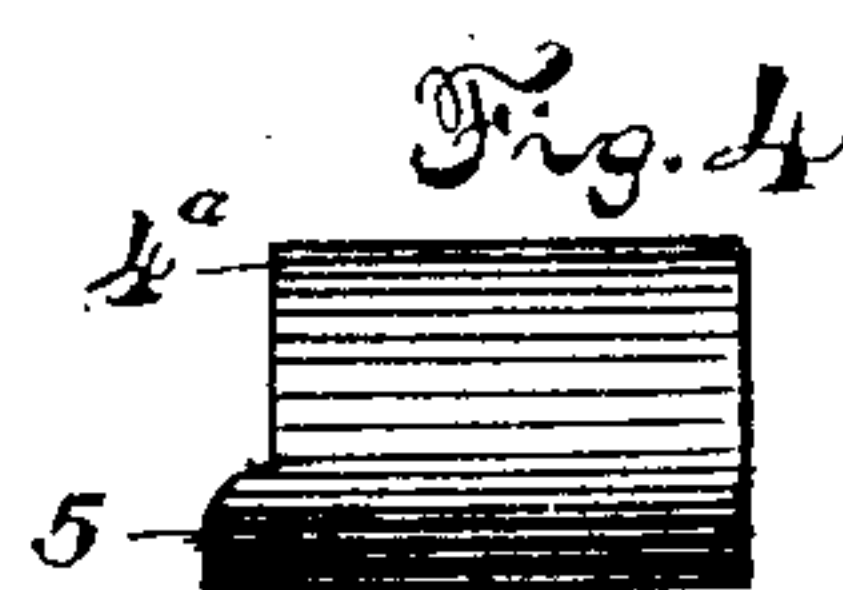
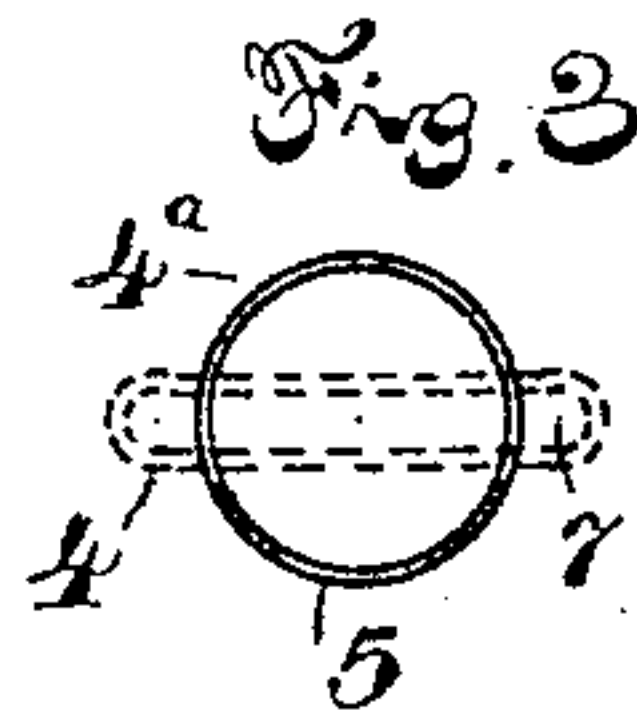
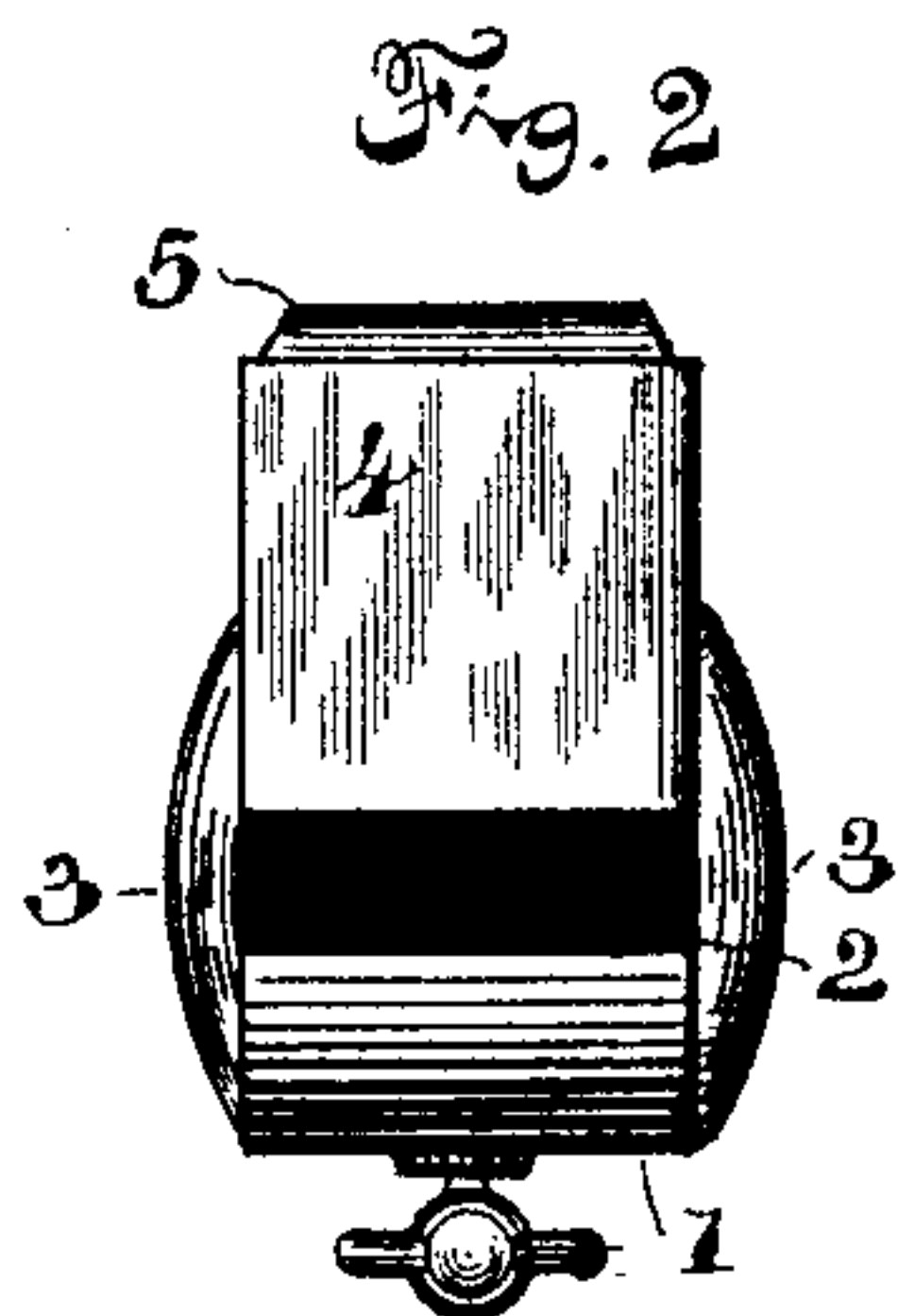
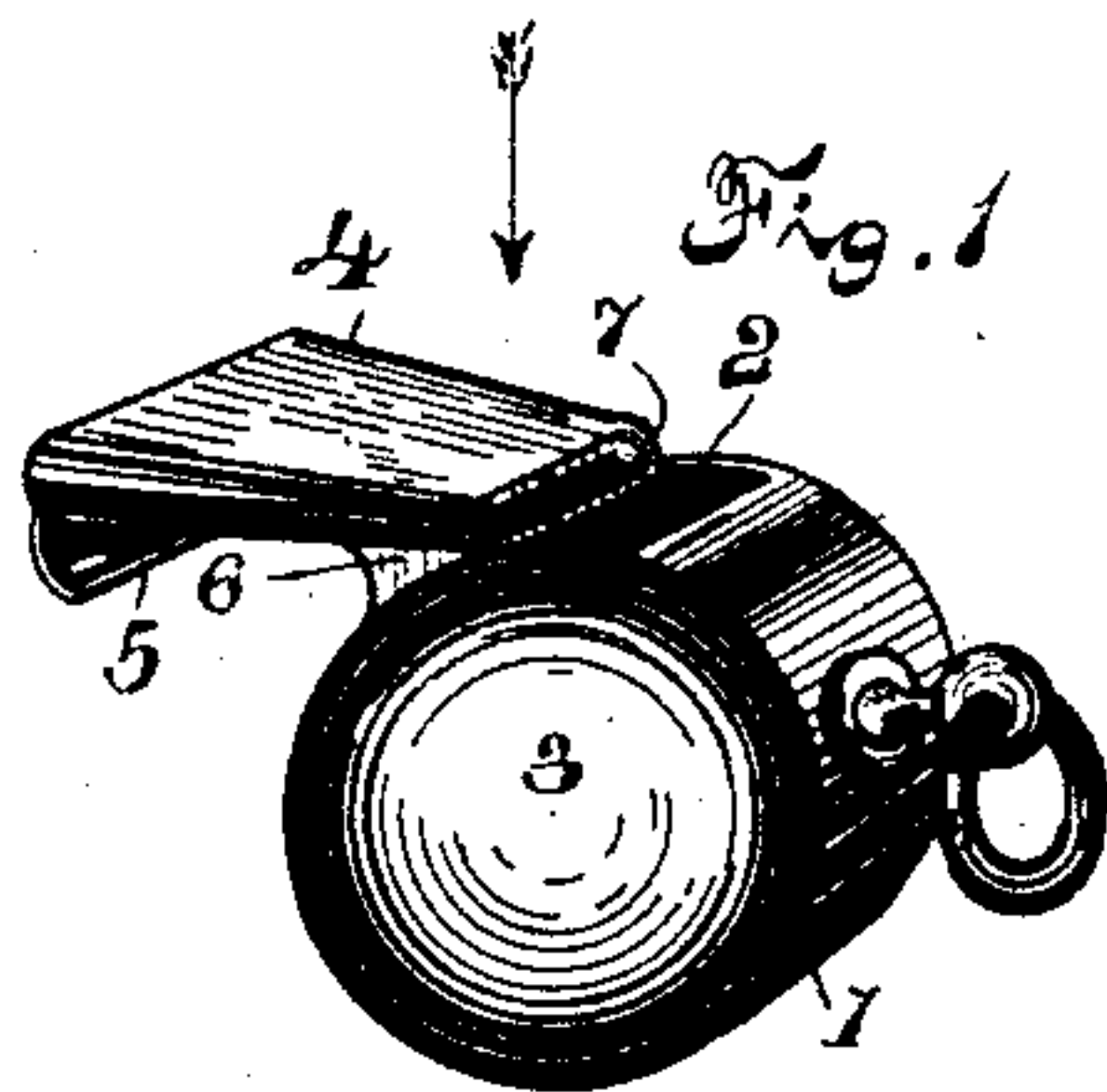
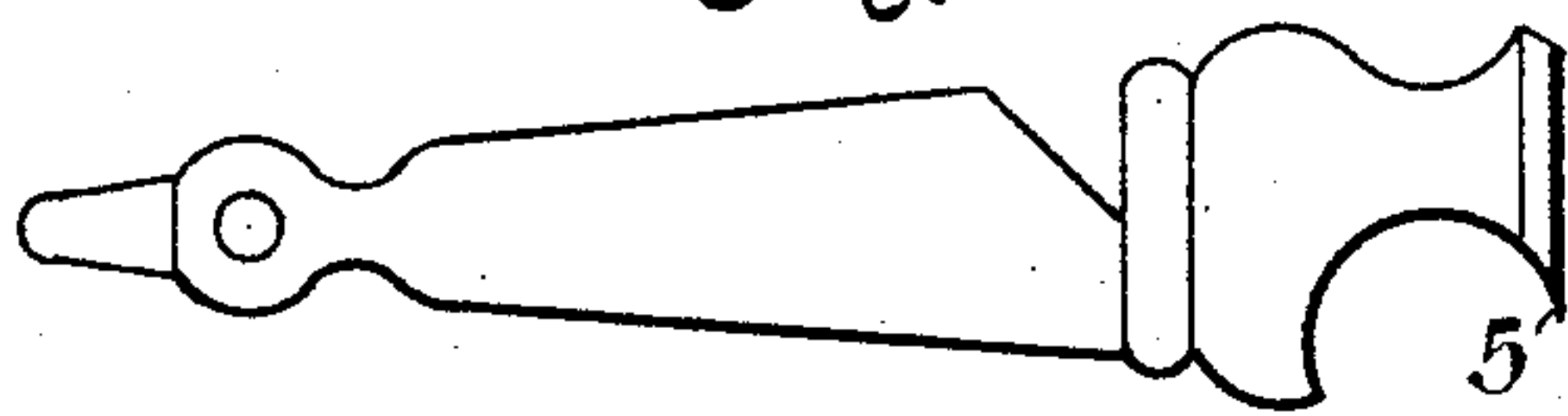


Fig. 9



Witnesses.

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By their Attys. Geo. D. Phillips

UNITED STATES PATENT OFFICE.

WILLIAM N. BEARDSLEY AND ALVIN D. MOULTON, OF BRIDGEPORT,
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MOUTH-WHISTLE.

SPECIFICATION forming part of Letters Patent No. 497,759, dated May 23, 1893.

Application filed December 27, 1892. Serial No. 456,333. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM N. BEARDSLEY and ALVIN D. MOULTON, citizens of the United States, residing at Bridgeport, in the
5 county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Mouth-Whistles; and we do hereby declare the following to be a full, clear,
10 as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to whistles and particularly to that class known as call or mouth whistles.

15 The object of our invention is to render this class of instruments less bulky than those at present in use, and yet increase the volume of sound, in other words, to make the whistle more compact, neat and handy to hold in the
20 mouth, or carry in the pocket, and also by our peculiar construction to greatly cheapen the cost of manufacture and by so doing benefit the user.

To this end our invention consists of a
25 short longitudinally disposed barrel or sound chamber constructed of thin metal and having preferably convex heads so as to increase the capacity or volume of the chamber; a longitudinal opening in the side of said barrel, which opening will in its length, equal
30 the length of the barrel and thereby increase the volume of sound; a mouth piece arranged tangentially with the barrel; a projection formed at the outer end of the mouth
35 piece to more readily hold said mouth piece between the teeth. The said mouth piece we propose to make of a piece of round tubing, cutting away a portion thereof in order to
40 form such projection; then to compress or flatten said tubular portion into the shape required for the completed mouth piece thereby greatly reducing the cost of its manufacture; further, to provide a seat or chair in its place
45 upon the barrel. Such seat or chair is made tapering or of cuneiform shape, having one side concave to conform to the cylindrical shape of the barrel and the other side straight to support the flat mouth piece; all of which
50 improvements will be more fully described in the following specification and such characteristic features as we believe to be new and

novel particularly pointed out in the claims to follow.

To enable others to understand, make and use our said invention, reference is had to the
55 accompanying drawings and to the figures and letters of reference marked thereon, in which—

Figure 1, represents a view in perspective of our completed whistle. Fig. 2, is a plan
60 view of the completed whistle looking in the direction of the arrow shown in Fig. 1. Fig. 3, is a detail view and end elevation of the mouth piece, showing in full lines the tubing from which it is made, and in dotted lines
65 the shape into which said tube is compressed to form the completed mouth piece. Fig. 4 is a side elevation of the tubing of which the mouth piece is constructed, showing a portion of the end cut away to form the lip or pro-
70 jection for holding said mouth piece between the teeth. Fig. 5 is a perspective view of the seat or chair. Figs. 6, 7 and 8 are side elevations of the mouth piece, showing modified forms of the holding projection. Fig. 9 is a
75 representation of an old well known mouth whistle having a curved under lip.

Its construction and operation are as follows: 1 represents the barrel, 2 longitudinal
80 sound opening in the side thereof, 3 the convex heads in the ends of said barrel, 4 the mouth piece, 5 lip portion thereof, 6 supporting chair for the mouth piece.

The barrel 1 is made either of thin metal tubing cut off in lengths suitable for the pur-
85 pose and the heads 3 struck up in convex shape and then soldered or otherwise attached to the open ends of the barrel 1, or such barrel (and this latter construction we prefer) may be drawn up from a simple disk or blank
90 after the manner of drawing cartridge shells and other devices of like character. In this manner one of the heads will form an integral part of the barrel, and will also be given the proper amount of convexity by the same op-
95 eration that effects the drawing. The other or open end of the barrel can then be closed by a head struck up to conform to the shape of the solid head before mentioned. However, before this head is attached to the bar-
100 rel, the barrel is placed upon a suitable man-
drel and by means of a press and the neces-

sary tools the longitudinal sound opening 2 is formed in the side thereof.

The manner of constructing the mouth piece is as follows, reference being had to Figs. 3 and 4: The first operation is to cut off from a piece of drawn tubing of the proper diameter a section of suitable dimensions, which is designated by 4^a. A portion of the end is cut away to form the projection 5,—see Fig. 4.—
 10 Then the said shell section is by means of suitable tools,—see Fig. 3—compressed to the shape required for the mouth piece, leaving the space 7 between the upper walls for the passage of air from the mouth to the sound-
 15 ing chamber of the barrel. The proper shape is also given to the projection 5 during the operation of compressing the tube to form the mouth piece.

The seat or chair 6,—see Fig. 5—is wedge shaped, that is to say, made of a suitable width or thickness on the one edge *a* and tapering to the thin edge *b* at the other. The under side *c* is concave to conform to the dotted circle shown in this view, which circle,
 25 represents the outer cylindrical surface of the barrel 1 shown in Figs. 1 and 2. The upper surface *d* of this chair is made straight to conform to the straight surface of the mouth piece. When, therefore, the different parts
 30 of the whistle have been constructed in detail as above mentioned, the assembling of such parts into the completed whistle is a very cheap and simple operation. The circular face *c* of the chair 6 is laid upon the barrel
 35 and the mouth piece 4 upon the straight surface *d* of said chair, and the latter arranged so as to place the mouth piece tangentially with respect to the barrel 1, and its outlet 7 in close proximity with the opening 2 thereof,
 40 when the three parts are preferably soldered together. This seat or chair 6 by its peculiar shape performs a very important service, not only in assembling the whistle, whereby the proper inclination is instantly given to the
 45 mouth piece, but such mouth piece is thoroughly braced and firmly supported thereby. It would be extremely difficult and otherwise very expensive to attach the mouth piece directly to the barrel 1 without the aid of the
 50 chair as shown. No amount of solder would prove so effectual in holding, for it is a well known fact that the less solder or glue used between the two surfaces the firmer they can be fastened together.

55 The projection 5 can be of any desired shape best suited for the purpose required, which purpose is that, while the teeth may loosely engage the mouth piece, such projection will prevent the whistle becoming disengaged there-
 60 from. This projection may be either on the under side as shown in Figs. 1 and 2, or on

the upper side as shown in Fig. 6, or upon both sides as shown in Fig. 7, or a beading employed as shown in Fig. 8. The curved projection however we do not claim broadly, 65 as such is a well known feature of the old common horn whistle shown in Fig. 9, but we simply use it in combination with the other features of our peculiar and novel construction.

The device as above described is compactly 70 arranged. The longitudinally disposed barrel is capable of producing a large volume of sound and yet contain no more bulk or weight than an ordinary cigar holder, in other words, the longitudinally disposed barrel with the 75 convex heads; long sound opening; wide tangentially arranged mouth piece and holding or retaining lip, all combine to make it a desirable instrument of its class. Besides, the novel feature of the chair and the mouth piece 80 made of a single piece of tubing enhances its value as an article of manufacture.

Having thus described our invention, what we claim as new, and desire to secure by Let- 85 ters Patent, is—

1. A mouth whistle comprising in combination a longitudinally disposed barrel having convex heads as shown, whereby the sound- 90 ing chamber is materially increased in volume, a longitudinally disposed sound opening in the side of said barrel and preferably the full length thereof, a mouth piece constructed of one piece of tubing and arranged tangentially with the said barrel and the sound 95 orifice therein as shown, a curved retaining projection integrally formed with such mouth piece, a taper seat or chair for supporting the mouth piece upon the barrel, all arranged and combined as set forth.

2. The combination in a mouth whistle of 100 the following elements constructed and arranged to operate as shown and set forth, viz. the longitudinally disposed barrel 1, convex heads 3 in the ends thereof, longitudinal sound 105 orifice 2 in the side of said barrel and extending preferably the full length thereof; tangentially arranged or placed mouth piece 4 having the curved retaining projection 5; wedge shape chair or seat 6 having one face concave to fit the barrel portion and the other 110 face straight for supporting the mouth piece whereby said mouth piece is firmly secured and supported in its position on the barrel portion.

In testimony whereof we affix our signatures 115 in presence of two witnesses.

WILLIAM N. BEARDSLEY.
 ALVIN D. MOULTON.

Witnesses:

EDWARD A. JONES,
 SAML. T. HOUGHTON.