

Patented April 29, 1879.



UNITED STATES PATENT OFFICE

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IMPROVEMENT IN MOUTH-PIECES FOR SPEAKING-TUBES.

Specification forming part of Letters Patent No. **214,902**, dated April 29, 1879; application filed
March 10, 1879.

To all whom it may concern:

Be it known that I, JOHN GÉRARD, of Trenton, New Jersey, have invented a new and useful Improvement in Mouth-Pieces for Speaking-Tubes, of which the following is a specification.

My invention relates to improvements in the construction of mouth-pieces for speaking-tubes; and the object of my improvements is to make an entire mouth-piece of cast-metal parts, constructed and adapted to each other in the manner described hereinafter, with the view to the ready putting together of the parts, and for the purpose of producing a neat and attractive mouth-piece.

In the accompanying drawings, Figure 1 is a sectional view of my improved mouth-piece for speaking-tubes; Fig. 2, a transverse section on the line 1 2; Fig. 3, the same, showing the whistle elevated; Fig. 4, detached perspective views of the different parts which compose the case of the mouth-piece, and Figs. 5 and 6 views illustrating the mode of constructing the whistle.

The case of the mouth-piece consists of the two parts A A', constituting the body, the partition B, and the mouth D. The two parts A A', when fitted together, form the hollow octagonal body, with a tubular projection, *a a'*, at the rear for attachment to the speaking-tube, this tubular projection being formed by two segments—one cast on the rear of one of the parts, A, of the case, and the other on the rear of the other part, A'.

The two parts of the case are connected together by means of the partition B, which consists of a flanged plate adapted to the interior of the case, and having a central opening, *b*. Projections *d d* on the partition pass through orifices in one part, A, of the case, and similar projections *d' d'* through similar orifices in the other part, A', the ends of these projections being riveted, and the two parts of the case and partition thereby firmly secured together.

The two parts A A' may be made of ordinary cast-iron, and, owing to their shape, may be easily molded; but the partition B should be of soft or of malleable cast-iron, or of brass,

so as to admit of its projections *d d'* being easily riveted.

At the rear of the mouth D is a circular flange, *e*, having projections *f*, which fit snugly in a flange, *h*, in front of the case, and against a rib, *i*, cast within the same, and to two of the projections *f* of the mouth are cast wrought-iron lips *j j*, which, when the mouth is fitted to the case, can be bent down against the rear of the rib *i*, and into notches *m*, in the edge of that rib, thereby so firmly securing the mouth to the case that the former can neither turn in nor be detached from the latter.

A slot, *n*, is formed in the upper portion, A, of the case, for the admission of the whistle H, lugs *p p* on which are hinged to lugs *q q* on the said case, a spring, *s*, attached at one end to the case and hooked at the other end to the whistle, tending to maintain the latter in the position Fig. 2, but permitting it to be raised, as shown in Fig. 3.

The whistle consists of two cast-iron plates, *w* and *w'*, riveted together, an annular rib, *y*, on the plate *w* bearing against a similar rib, *y'*, on the other plate, and the space inclosed by the two ribs, with the central opening in each plate, serving to produce the whistling sound on blowing through the tube. There are steadying-pins *k* on the plate *w*, for fitting the exterior of the annular rib *y'* on the plate *w'*, and thereby insuring a proper adjustment of the two plates together. The upper portion of the plate *y'* has a flange, *t*, conforming in shape with the case and coinciding therewith, one end of this flange being turned up at *u*, to afford facilities for raising the whistle.

It will be seen that all the parts of my improved mouth-piece can be readily and cheaply cast, and as readily put together.

It is not essential to my invention that the case should be of octagonal form; but I prefer that shape, as it admits of the neat ornamentation of the case without adding to the cost of making the molds for the castings.

I claim as my invention—

1. The within-described mouth-piece case, consisting of the two parts A A' and partition B, which serves as a medium for connect-

ing the said two parts together, all substantially as set forth.

2. The combination of the flanged partition B and its projections *d d* and *d' d'* with the two-part case A A', having openings for receiving the said projections, which serve as rivets, all substantially as specified.

3. The combination of the case having a rib, *i*, with the mouth D, adapted to the said case, and having flexible lips *j j*, by which to connect the mouth to the case, in the manner specified.

4. The whistle composed of two plates, *w w'*, each having a central opening and an annular rib on the inner side, the said ribs bearing against each other when the plates *w w'* are secured together, as set forth.

5. The combination of the case with a whistle,

H, hinged eccentrically in respect to the case, so as to swing across the same in a lateral plane, as set forth.

6. The combination of the case with the whistle H and the flat spring *s*, hooked to the case at one end and to the whistle at the other end, as set forth.

7. The whistle H, composed of two plates, *w w'*, one of which has a flange, *t*, with projecting end *u*, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN GÉRARD.

Witnesses:

WILLIAM HOLT,
EUGENE EMLEY.