

J. E. FOWLER.

Mouth-Pieces for Musical Instruments.

No. 147,759.

Patented Feb. 24, 1874.

Fig. 1.

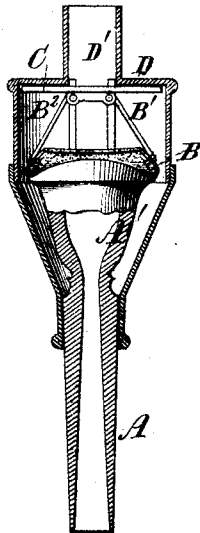


Fig. 2.

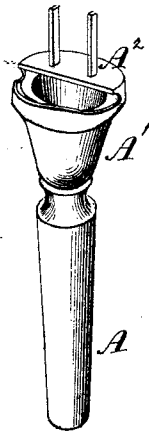


Fig. 3.

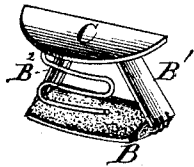
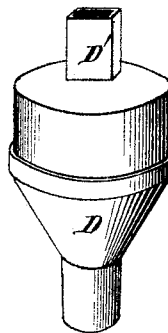


Fig. 4.



Witnesses.
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JOHN E. FOWLER, OF SILVER CREEK, NEW YORK.

IMPROVEMENT IN MOUTH-PIECES FOR MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **147,759**, dated February 24, 1874; application filed January 7, 1874.

To all whom it may concern:

Be it known that I, J. E. FOWLER, of Silver Creek, in the county of Chautauqua and State of New York, have invented an Improvement in Mouth-Pieces for Musical Instruments, of which the following is a specification:

Figure 1 is a sectional elevation of the device. Fig. 2 is a perspective view of that portion which is attached directly to the instrument. Fig. 3 is a perspective view of the elastic lip and the mechanism for compressing it, and Fig. 4 is an elevation of the outer sliding portion of the mouth-piece.

Corresponding letters denote corresponding parts in the several figures.

This improvement relates to that portion of wind-instruments for producing sounds which is denominated the mouth-piece; and it consists in providing such instruments with what may be termed an artificial lip, which is made of rubber or other suitable material, which is arranged and connected with other devices in such a manner that, while being used, it may have different degrees of tension or hardness applied to it, and thus affect the tone or sound of the instrument; and it further consists in the construction, combination, and arrangements of the parts of which it is composed, as will be more fully explained hereinafter.

In constructing devices of this character, I use a tube, A, which is, in every respect, like the ordinary mouth-piece of a cornet, its lower portion being tapering to cause it to fit tightly in the end of the instrument. This tube differs from others, in that it has upon its upper or outer end an enlargement, A¹, in which there is an enlarged opening, as shown in Figs. 1 and 2, where it will be seen that said enlarged opening communicates with the aperture in the tube A, which conducts the wind to the instrument. A portion of the enlarged opening above referred to is covered by a plate, A², as shown in Fig. 2, while the other portion of its open end is left open, and is of the beveled form shown in the same figure, the inner portion thereof terminating in a hook-shaped groove, for the purpose of receiving and holding the elastic lip soon to be described. To the outer surface of the plate A² there are fixed

two projecting pins, which are so arranged as to pass out into a cap, which covers the mouth-piece, as shown in Fig. 1. To the open portion of the enlargement A¹ the elastic lip B is applied; it consists of a piece of suitably-prepared rubber, or of some similar substance, which is made to rest upon the beveled surface of said enlargement, its inner edge resting in the groove above referred to. To the outer ends of the lip B the lower ends of two hinged bars of metal, B¹ B², are attached, whose upper ends are pivoted to a plate, C, which is semicircular in form, or of such other form as to allow it to pass up into the cap D. The length of the bars B¹ B² is such as to cause them to keep the plate C nearly in contact with the inner surface of the cap, in order that, as the performer applies his lips to the tubes formed upon the outer surface of said cap, for the purpose of blowing the instrument, he may, by pressing gently thereupon, cause its inner surface to strike the plate C; thus the lower ends of the levers will be forced apart, and the flexibility or hardness of the elastic lip B will be affected, and different notes may be sounded, they being high or low notes, according to the condition of the lip B at the time of making them, in which respect the operation is similar to that of the blower's lips upon the instrument. If found desirable, a spring may be placed upon the under side of the plate C for keeping the lip in contact with the outer edge of the enlargement A¹; but, generally, this spring may be omitted. Upon the upper end of the tube A there is placed a cap, D, which has been above alluded to. The lower end of this cap is made to move freely upon tube A, but so as to cause a tight joint between the two, while its upper portion is so enlarged as to cause it to embrace the elastic lip and its appendages, it having a head in its outer end upon which the wind-tube D¹ is attached. The arrangement of this cap, with reference to the other parts of the device, is such that, as the performer applies his lips to the tube D¹, for the purpose of blowing the instrument, he may, by pressing the instrument gently against his lips or teeth, cause said cap to slide upon the tube A, and the pins attached to the plate A², and thus bring

its inner surface in contact with the plate C, which will produce the result hereinbefore described.

Some of the advantages due to the form of mouth-piece shown may be stated as follows: It may be used by persons whose lips have not become hardened by practice, thus enabling persons, who are familiar with such instruments, but who have not been in the habit of using them, to at once recommence their use; and, secondly, they can be used advantageously by persons who cannot furnish the lungs sufficient air to blow the ordinary instrument, as the former require less wind than the common instruments or mouth-pieces do.

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

1. The fixed mouth-piece A, in combination with the sliding cap D and elastic lip B, the flexibility of which lip is regulated by endwise pressure on the cap, substantially as and for the purpose specified.

2. The combination of the tube A, having the enlargement A¹, the lip B, and its expanding mechanism, with the cap D and its induction-tube D¹, the parts being constructed and arranged substantially as and for the purpose set forth.

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

JOHN E. FOWLER.

Witnesses:

ALPHEUS BABCOCK,
MARK C. KEITH.