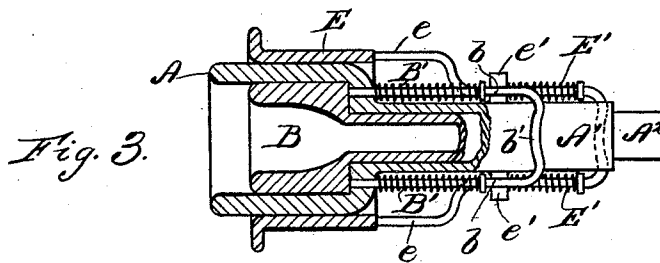
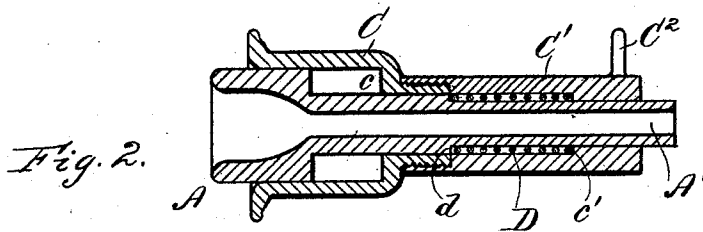
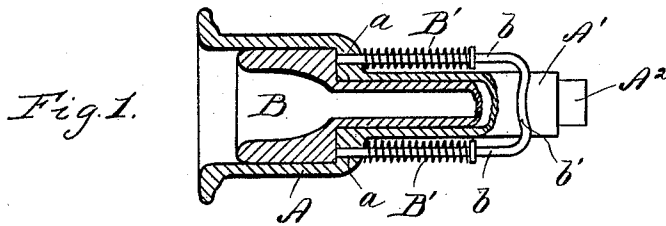


(No Model.)

F. R. SKIDMORE.
MOUTHPIECE FOR WIND INSTRUMENTS.

No. 528,993.

Patented Nov. 13, 1894.



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MOUTHPIECE FOR WIND-INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 528,993, dated November 13, 1894.

Application filed February 1, 1894. Serial No. 498,709. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK R. SKIDMORE, a citizen of the United States, residing at Milwaukee, county of Milwaukee, State of Wisconsin, have invented certain new and useful Improvements in Mouthpieces for Wind-Instruments; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to new and useful improvements in the construction of mouthpieces for wind instruments such as, cornets, trombones, &c., and my said invention consists in the matters hereinafter described and pointed out in the appended claims.

Considerable difficulty is experienced in producing low tones upon wind instruments having small sized mouth-pieces, as well as in producing high or shrill tones upon instruments provided with largesized mouth-pieces, and it is to provide a combination mouth-piece of such construction that the player may at will adjust the same, so as to advance a mouth-piece of desired size, there being a plurality of sections each provided with a separate mouth piece, that my present invention is designed.

In the accompanying drawings, Figure 1 is a longitudinal view partly in section and partly in elevation of one form of my improved device. Fig. 2 is a longitudinal sectional view of a somewhat different form of my device. Fig. 3 is a view partly in section and partly in elevation of still another form of my improved device.

Referring by letter to said drawings, A designates a mouth-piece, adapted for engagement with a tubular part of the instrument in the ordinary manner.

In the particular form of construction shown in Fig. 1, the mouth-piece A is made of substantially cylindric form, adjacent to its forward end, and a second mouth-piece or section B is movably fitted therein, so as to slide longitudinally in or out. Suitable apertures *a a* are provided in the rear end of the cylindric section A, through which suitable parallel rods *b b* are passed and en-

gaged at their forward end with the movable section B. The rear end of these rods *b b* are preferably joined together by a cross piece *b'* which forms a convenient stop by means of which said rods and the connected movable section B may be adjusted by hand. Springs *B' B'* are conveniently provided upon the rods *b b* and arranged to engage between the rear end of the cylindric part of the section A, and suitable shoulders upon the rods *b b*, and said springs serve to normally retract the movable section B in an obvious manner.

I find it convenient to make the two sections A and B of substantially the form shown in Fig. 1, the section A being provided with the tubular extension *A'* at its rear, for engagement with the tubular part of the instrument, and the movable section B being provided with a corresponding tubular projection *A²* telescoped within the tubular section *A'* of the section A.

In the particular form of construction shown in Fig. 2, the section A is shown as of smaller diameter than the movable section, which latter is telescoped upon the outside of said section A and has movable engagement therewith. In this form of construction the movable section C is arranged upon the outside of the section A, and is provided with a cylindric portion at its forward end, having a cylindrical recess *c* of a size corresponding with the outside of the forward end of the section A. An annular shoulder *d* is provided upon the outside of the tubular extension *A'* of the section A, and an interior annular shoulder *c'* is provided within the tubular extension *C'* upon the section C, and between these shoulders *d* and *c'* is arranged a spring D which serves to normally retract the outer movable section C. A suitable projection or stop *C²* is provided upon the tubular extension *C'* by means of which the movable section C may be pressed forward at will.

In the form of construction shown in Fig. 3, the stationary section A is shown as provided upon its inside and also upon its outside with movable sections, the inner movable section B corresponding in construction and arrangement with the section B of the form shown in Fig. 1, and being provided with the same movable rods *b b* and springs *B' B'*, with the cross piece *b'* as before described.

The outside of this section A in this form of construction is made cylindric as well as the inside and upon the outside thereof, is secured a movable telescopic section E, to the rear
 5 end of which are secured suitable rods *e e* which extend rearwardly through projecting ears *e' e'* upon the outside of the tubular extension *a'* of the section A and upon the rear ends of which are arranged springs *E' E'* bearing against said ears and suitable shoulders
 10 on the rods *e e*.

In each form of my improved device, the fixed or stationary section A is arranged to normally project beyond the movable section
 15 or sections, so as to be normally in position for use, and in playing the performer uses the fixed or stationary section of the mouth-piece while producing the low or the high tones as the case may be, and in case he desires to produce tones either above or below the range
 20 of said stationary or fixed section, he advances the movable section into position for use.

The form of construction shown in Fig. 1 is designed to enable the performer by use of the
 25 smaller movable section B to produce tones of higher pitch than could be produced by means of the larger sized stationary mouth-piece.

In the form shown in Fig. 2, a smaller section is made stationary and the outer section
 30 movable, so as to enable the performer by the use of the larger movable section to produce tones below the range of the stationary section A.

In the form shown in Fig. 3, the intermediate section A is made stationary and the inner section B is designed for producing tones
 35 above the range and the outer movable section for producing tones below the range of said intermediate stationary section.

By my improvement, a performer is enabled
 40 by a proper adjustment of the sections of the mouth-piece to produce tones having a higher or a lower range than would be possible with the single stationary mouth-piece, and thereby to materially increase the compass or range
 45 of the instrument.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A mouth piece for wind instruments comprising a plurality of tubular sections having
 50 telescopic engagement with each other and at least one of said sections being longitudinally movable with respect to the other section or sections and adapted to be adjusted
 55 beyond or retracted within the line of the other section or sections, substantially as described.

2. A mouth piece for wind instruments comprising a plurality of tubular sections having
 60 telescopic engagement with each other, at least one of the sections being longitudinally movable with respect to the other section or sections, and suitable means for adjusting the same beyond or retracted within the line of
 65 the other section or sections, substantially as described.

3. A mouth piece for wind instruments comprising a plurality of tubular sections having
 70 telescopic engagement with each other, at least one of the said sections being longitudinally movable with respect to the other section or sections suitable means projecting to the outside of the mouth piece and adapted
 75 for operation by hand to advance the same beyond or retracted within the line of the other section or sections, and suitable means for normally retracting said movable section
 80 substantially as described.

4. A mouth piece for wind instruments comprising a plurality of tubular sections of different
 80 diameters, each suitably shaped at its forward end to enable it to be used as a mouth piece, and at least one of said sections being longitudinally movable with respect to the
 85 other section or sections and adapted to be adjusted to or beyond or retracted within the line of said other section or sections so as to enable a desired one of said sections to be
 90 used as a mouth piece, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

FREDERICK R. SKIDMORE.

Witnesses:

JOHN E. WILES,
 M. M. WILES.