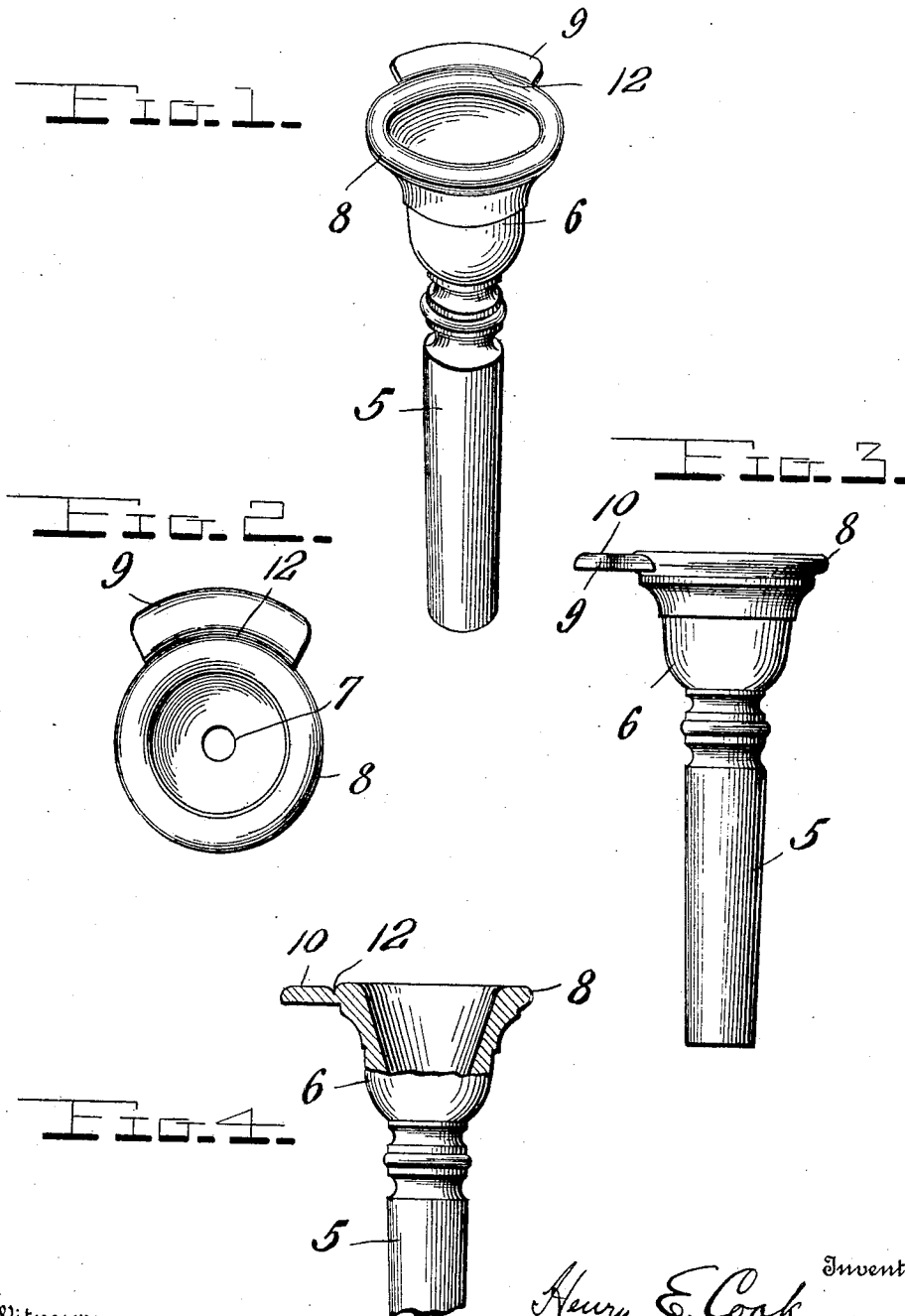


H. E. COOK & E. P. BULLOCK.
MOUTHPIECE FOR MUSICAL INSTRUMENTS.
APPLICATION FILED NOV. 1, 1909.

972,823.

Patented Oct. 18, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY E. COOK AND EDWIN P. BULLOCK, OF BOZEMAN, MONTANA.

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972,823.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed November 1, 1909. Serial No. 525,737.

To all whom it may concern:

Be it known that we, HENRY E. COOK and EDWIN P. BULLOCK, citizens of the United States, residing at Bozeman, in the county of Gallatin and State of Montana, have invented certain new and useful Improvements in Mouthpieces for Musical Instruments, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in mouth-pieces for musical instruments and has for its object to provide a device of this character which is so constructed that the notes in the upper register may be easily reached and perfect tones obtained without tiring the muscles of the upper lip of the performer.

Another object is to provide a mouth-piece having a flange plate integrally formed therewith which will retain the performer's lips in position so that any note of the scale may be indefinitely prolonged and which will also prevent the mouth-piece from shifting while marching.

With these and other objects in view, the invention consists of the novel construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of a mouth-piece constructed in accordance with the present invention; Fig. 2 is a top plan view; Fig. 3 is a side elevation; and Fig. 4 is a vertical section.

In the present construction of mouth-pieces, for various forms of horns, trombones, trumpets and other musical wind instruments, considerable difficulty is experienced by the performer in keeping his lips in the proper position on the end of the mouth-piece, and especially so when he endeavors to reach the notes in the upper register. Our invention is devised with a view to obviating this difficulty, and to this end we provide a mouth-piece of the usual form comprising a tubular shank portion 5 which tapers slightly to its lower end, and the enlarged cupped end or hollow cup 6. The inner wall of said head is inclined inwardly or tapers to the bore 7 of the tubular shank 5. The end of the cup 6 is formed with a rounded outer edge as clearly shown at 8 in Fig. 3 and has integrally formed therewith the concentric flange 9. This flange extends less

than one-half the circumferential extent of the end of the cup and the surface thereof is out of the plane of the end of the cup 6 as indicated at 10. The outer edge of the flange is rounded and the inner edge thereof is curved outwardly from the curved edge 8 of the cup whereby a shallow groove 12 co-extensive with the flange is provided into which the performer's upper lip is disposed in the use of the mouth-piece. This induces a certain amount of suction which will prevent the mouth-piece from shifting during marching. It will be noted that the flange extends a comparatively short distance around the cup of the mouth-piece, which when in use is disposed against the upper lip of the performer. The extent of the flange is such that the corners of the mouth are not covered thereby, thus permitting the free respiration of the user.

By the use of a mouth-piece constructed as above set forth the high A of the upper register may be easily reached and retained indefinitely without danger of the lip being displaced and the tone destroyed. No strain whatever is placed upon the upper lip, so that the muscles will not soon become tired. This often causes considerable pain to the performer, as it requires no small amount of effort to attain the higher notes.

From the foregoing it will be seen that we have provided a device which is extremely simple, may be produced at a minimum cost and one which is of great utility and convenience. By its use the performer may readily acquire perfection in the playing of his chosen instrument without unduly exercising the lip muscles or inflating the lungs.

Having thus described the invention, what is claimed is:

1. A mouth piece for musical wind instruments having a cupped end, and a peripheral flange extending laterally from said cup and extending less than one half the distance therearound, said flange being disposed out of the plane of the end of the cup, substantially as and for the purpose set forth.

2. A mouth-piece for musical instruments having a cupped end, and a peripheral flange extending laterally therefrom and only partially around the same, a shallow groove being formed between the flange and the cup and co-extensive with said flange.

3. A mouth-piece for musical wind in-

struments having a cupped end circular in plan, and a flange extending laterally from the outer edge of said cup and only partially around the same, the outer surface of said
5 flange being disposed out of the plane of the end surface of said cup substantially as and for the purpose set forth.

4. A mouth-piece for musical wind instruments having a cupped end circular in
10 plan, and a flange extending laterally from the outer edge of said cup and integrally formed therewith, the outer surface of said flange being disposed out of the plane of the end of the cup, the inner edge of the flange
15 and the outer edge of the cup being curved toward each other to form a shallow groove substantially as and for the purpose set forth.

5. A mouth-piece for musical wind in-
20 struments having a cupped end, and a flange projecting outwardly from the rim of said

cup and extending only partially around the periphery thereof, a groove being formed between the edge of the cup and said flange, substantially as and for the purpose set 25 forth.

6. A mouth-piece for musical wind instruments having a cupped end, and a flange extending laterally from the rim of said cup and in concentric relation thereto, said 30 flange being of such extent as to leave the corners of the mouth of the performer uncovered, substantially as and for the purpose set forth.

In testimony whereof we hereunto affix 35 our signatures in the presence of two witnesses.

HENRY E. COOK.
EDWIN P. BULLOCK.

Witnesses:

A. D. McINTOSH,
CHAS. S. HARTMAN.