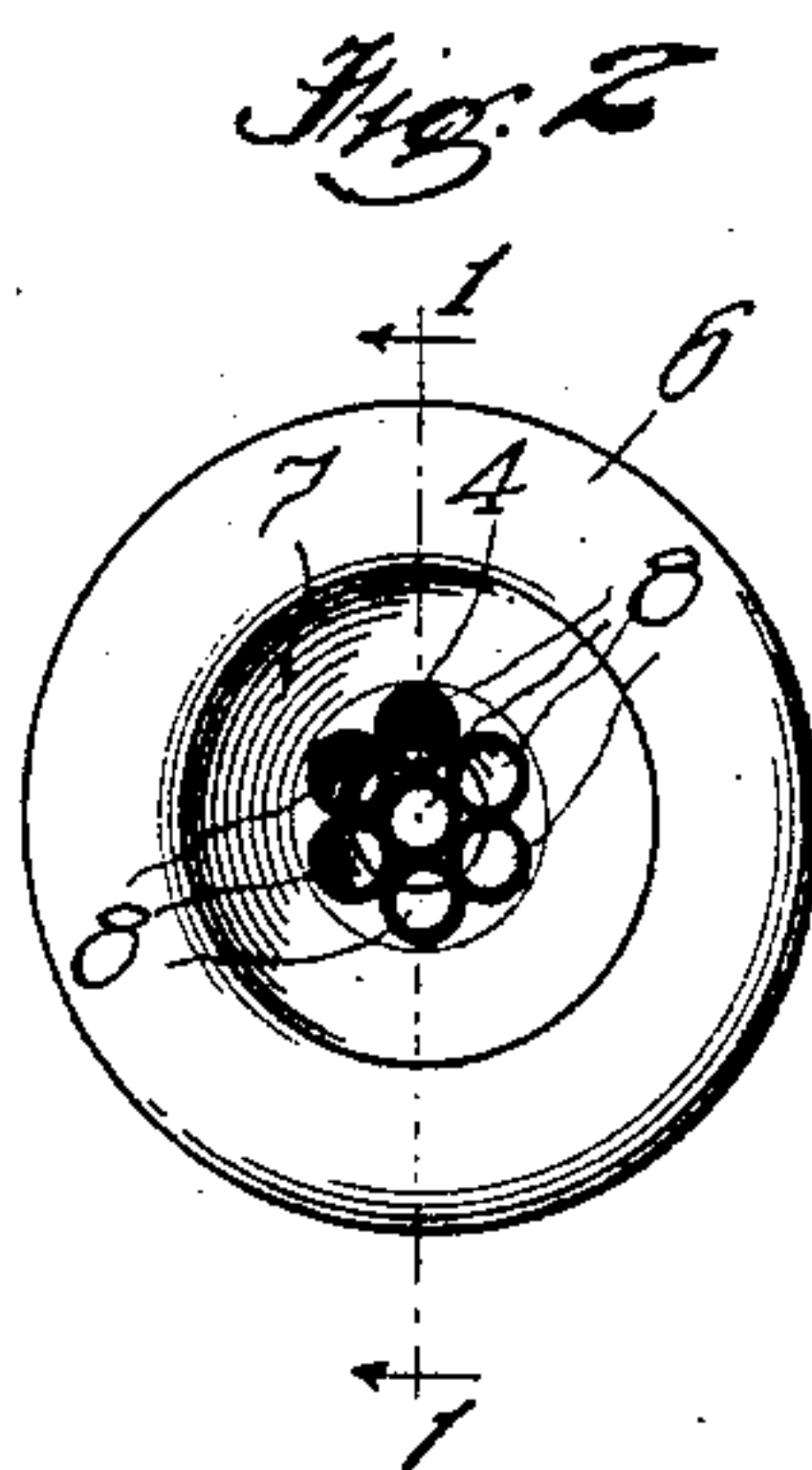
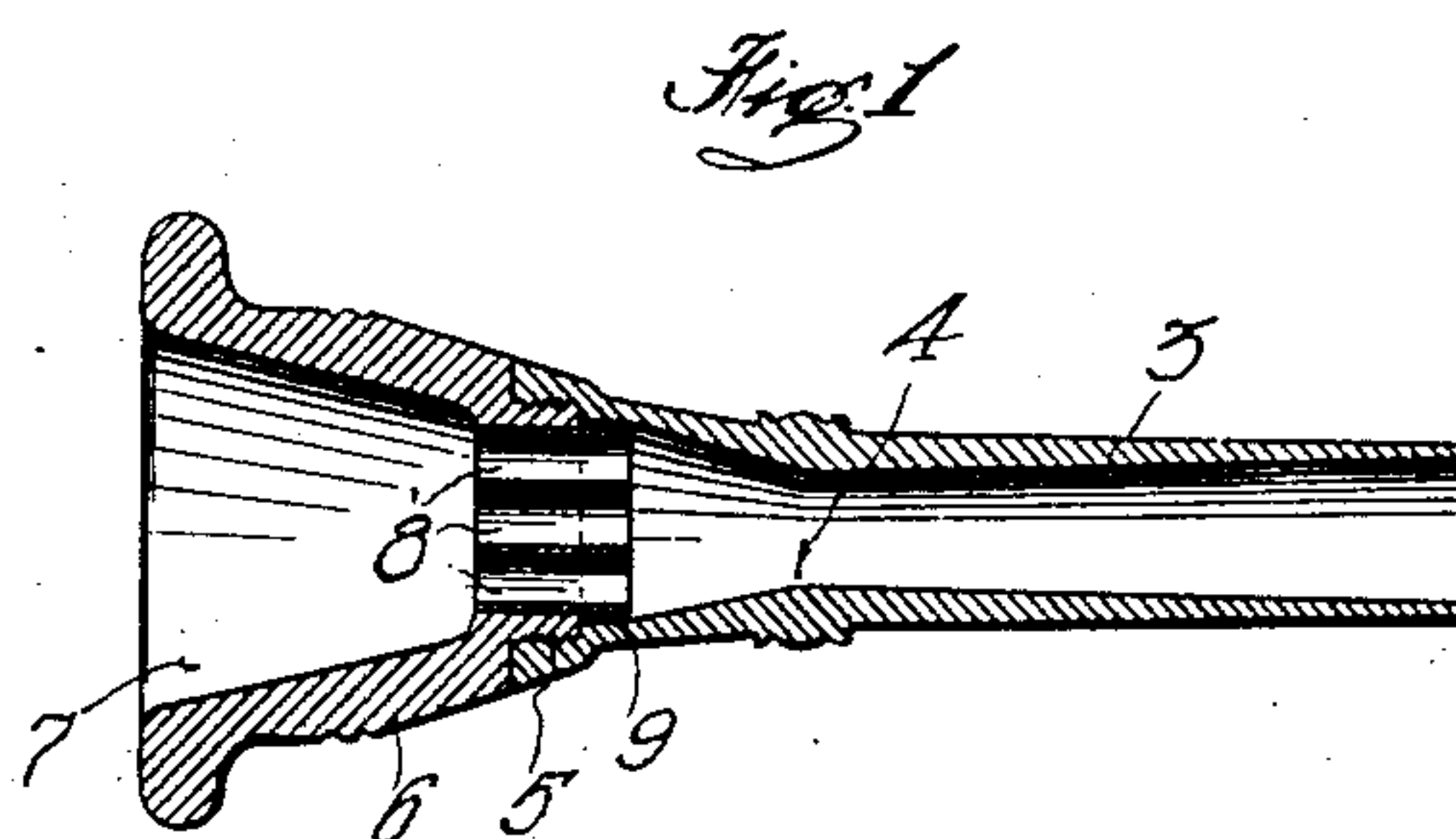


No. 862,819.

PATENTED AUG. 6, 1907.

E. HARRISON.
MOUTHPIECE FOR WIND MUSICAL INSTRUMENTS.

APPLICATION FILED OCT. 19, 1906.



Witnesses.

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UNITED STATES PATENT OFFICE.

EDGAR HARRISON, OF LOS ANGELES, CALIFORNIA.

MOUTHPIECE FOR WIND MUSICAL INSTRUMENTS.

No. 862,819.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed October 19, 1906. Serial No. 339,603.

To all whom it may concern:

Be it known that I, EDGAR HARRISON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have
5 invented new and useful Improvements in Mouthpieces for Wind Musical Instruments, of which the following is a specification.

My invention relates particularly to the mouth piece of such wind musical instruments as the horn, trumpet,
10 trombone and other like instruments; and the object thereof is to produce a mouth piece by means of which the high and low notes of the instrument may be produced with equal ease and with less expenditure of
15 force than is required by the use of the mouth pieces of the present instruments. I accomplish this object by means of the mouth piece described herein and illustrated in the accompanying drawings in which:—

Figure 1.—is a longitudinal section of a mouth piece embodying my invention on the line 1—1 of Fig. 2.
20 Fig. 2.— is a front elevation of a mouth piece embodying my invention.

Heretofore difficulty has been experienced by musicians in securing a satisfactory mouth piece for such wind musical instruments as the horn and other like
25 instruments. When the mouth piece was so constructed that the instrument produced high notes with the greatest ease the playing thereof required extra force to produce the low notes and vice versa, the result being that a mouth piece intermediate the extremes
30 was selected which was not satisfactory but was the best for general use. In my improved mouth piece I have avoided these objections and have produced a mouth piece that will produce in the instrument with equal ease high and low notes.

35 In the drawings 3 is the shank of the mouth piece which is insertible in the inlet of the tubes comprising the instrument. The shank is of usual construction being throttled at 4. As best shown in Fig. 1 the outer end of the shank flares outwardly and is internally
40 screw-threaded at 5 for the reception of the casing 6 of the inlet chamber 7, in the inner end of which are secured a plurality of small tubes or air passages 8, the inner ends of which preferably project slightly into the outer end of the shank. It will be observed that the
45 outer end of the shank has a slightly greater inner diameter than the inner diameter of the inner end of the casing of the inlet chamber, thereby producing what

I term a small expansion chamber 9 surrounding the inner ends of the tubes 8. This chamber I have found in practice adds to the ease in playing the instrument
50 although good results are attained by making the inner diameter of the outer end of the expansion chamber the same as the diameter of the inner end of the inlet chamber with the air passages terminating at the expansion chamber.
55

In the practical use of musical instruments provided with my improved mouth piece I have found that by the use of a number of air passages in the mouth piece intermediate its ends both high and low notes are produced with equal ease and are produced with less expenditure of force than with the ordinary mouth piece.
60 In the drawings I have shown 7 of these passages formed by small tubes as I have found by experimenting that 7 produces a most satisfactory result but a greater or less number may be used and good results obtained. The
65 passages may be formed by casting the inner end of the outer portion of the mouth piece closed and then boring small holes therethrough. A single air passage produces a beneficial result when the inner end projects into the expansion chamber.
70

Having described my invention what I claim is:—

1. A mouth piece for wind musical instruments having an inlet chamber and an expansion chamber, said inlet chamber being in the outer end thereof; and a plurality of air tubes connecting said chambers.
75

2. A mouth piece for wind musical instruments having an inlet chamber and an expansion chamber, said inlet chamber being in the outer end thereof; and a plurality of air tubes commencing at the inner end of said inlet chamber and terminating within the outer end of said expansion chamber.
80

3. A mouth piece for wind musical instruments having a tapered inlet chamber and a tapered expansion chamber, said inlet chamber being in the outer end thereof and tapering from its outer end; and a plurality of air tubes
85 commencing at the inner end of said inlet chamber and terminating within the outer end of said expansion chamber, the outer end of said expansion chamber being slightly larger than the tubes extending thereinto and the inner end being slightly smaller than the air tube into which said
90 mouth piece enters.

In witness that I claim the foregoing I have hereunto subscribed my name this 13th day of October, 1906.

EDGAR HARRISON.

Witnesses:

G. E. HARPHAM,
EDMUND A. STRAUSE.