No. 768,603.

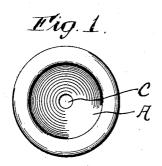
PATENTED AUG. 30, 1904.

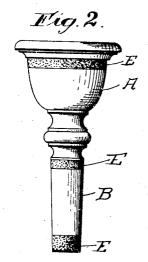
#### T. HENNESSEY.

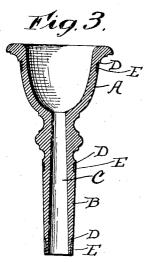
## MOUTHPIECE FOR WIND INSTRUMENTS.

APPLICATION FILED FEB. 23, 1904.

NO MODEL.







witnesses:

& Twester

Invertor: Tobias Hennessey By his Attouncy

O.A. Tafr

# UNITED STATES PATENT OFFICE.

TOBIAS HENNESSEY, OF LEOMINSTER, MASSACHUSETTS.

## MOUTHPIECE FOR WIND INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 768,603, dated August 30, 1904.

Application filed February 23, 1904. Serial No. 194,676. (No model.)

To all whom it may concern:

Be it known that I, Tobias Hennessey, of Leominster, in the county of Worcester and State of Massachusetts, have invented certain 5 new and useful Improvements in Mouthpieces for Wind Instruments; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to music, and particu-10 larly to a class thereunder known as '

pieces.

The invention has for its object the provision of novel means for changing the tone of a cornet or trumpet or that class of instru-15 ments designated as "brass" instruments whereby the tone is softened and in some instances permitting the players to imitate the tone of the French horn, so much desired by all alto players. Furthermore, an object of this invention is to produce a mouthpiece which facilitates the beginner in obtaining a player's "lip," preventing the tiring of the muscles, as the tension of the muscles required is reduced where a mouthpiece of this 25 character is employed.

The invention further obviates ice-blisters in the coldest weather, even though the said mouthpiece is not purposely kept warm by the

Furthermore, by the production of this invention the mouthpiece is retained firmly in place and is not liable to disengage and drop from the wind-tube.

Furthermore, an object of this invention is to produce a mouthpiece in which the discharging end of the said mouthpiece has a flared opening—that is, the hole in the discharging end is greater in diameter than the hole in the receiving end-this arrangement being provided for the purpose of increasing the force as the wind passes into the instrument, thus producing vibrations which are more even and more easily controlled.

Furthermore, an object of this invention is 45 to provide reinforcing-bands encircling the outer surface of the mouthpiece, which prevents checking of the material and contrac-

tion and expansion as well.

Finally, an object of this invention is to pro-

said mouthpiece being composed and formed of material non-metallic in character, the said material being preferably a very hard wood, perfect in grain, or it may be found desirable to use a wood composition formed and shaped 55 by a pressure, so as to condense the material and produce a hard compact material uniform throughout.

With the foregoing and other objects in view the invention consists in the details of 60 construction and in the arrangement and combination of parts to be hereinafter more fully

set forth and specifically claimed.

In describing the invention in detail reference will be had to the accompanying draw- 65 ings, forming part of this specification, wherein like characters denote corresponding parts throughout the several views, in which-

Figure 1 is an end view of a mouthpiece embodying the invention. Fig. 2 is a view in 70 elevation thereof. Fig. 3 is a central longi-

tudinal sectional view thereof.

In the drawings, A indicates the mouthpiece having a stem B integral therewith. The mouthpiece and its top is formed of non- 75 metallic material, which may be very hard wood or a composition molded and pressed to the desired configuration. Internally the stem has an opening C, which flares from the junction of the stem and mouthpiece to the 80 end of the same, the advantages of which have been heretofore set forth. The outer surface of the stem is shaped to fit the wind-tube of a horn, it being my purpose to have mouthpiece and stem varying in dimensions for use 85 in connection with cornets or with the heavier bass brass instruments. As the non-metallic stem contacts with the metallic wind-tube, the rather harsh metallic sound usual when two vibrating metallic surfaces are in contact is 90 overcome, and the tone produced by reason of the non-metallic material engaging the metallic material is very much softer than that produced by the old style.

In order to prevent cracking of the mate- 95 rial of which the mouthpiece and its stem are formed, I produce a series of annular recesses D in the outer surface of the stem and mouthpiece, and I embed therein metallic binding-5° vide a mouthpiece for brass instruments, the | bands E, which may be of silver, gold, or a 100 composition suitably finished and ornamented. Care must be taken in the manufacture of the stem and mouthpiece to insure the disengagement of the binding-band and the wind-tube, and this can be accomplished by sufficiently embedding the said binding-bands or so positioning them that they will not contact with the metallic parts of the instrument to which the mouthpiece and stem are applied.

By the use of this invention as stated, what is commonly known as a player's "lip" and what is technically known as an "embouchure" is more easily acquired and more readily maintained than where metallic mouthpieces

15 are used.

Having fully described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a wind-tube of a 20 metallic instrument, a non-metallic mouth-piece secured thereto and binding-bands on

the stem and mouthpiece substantially as described.

2. In combination with a wind-tube of a metallic instrument, a non-metallic mouth- <sup>25</sup> piece having a non-metallic stem, bindingbands on the stem and mouthpiece, the said stem being applied to the wind-tube.

3. In combination with a wind-tube of a metallic instrument, a non-metallic mouth- 3° piece, and stem, the said mouthpiece and stem having annular recesses and binding-bands seated in the recesses substantially as described.

In testimony whereof I have signed my name 35 to this specification in the presence of two subscribing witnesses.

### TOBIAS HENNESSEY. [L. s.]

Witnesses:

O. A. TAFT.

E. V. Roberts.