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# UNITED STATES PATENT OFFICE

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## MOUTHPIECE FOR REED MUSICAL INSTRUMENTS

Daniel Ludwig Fauss, Pittsburgh, Pa., assignor of forty-eight per cent to William P. Werme, Pittsburgh, Pa.

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4 Claims. (Cl. 84—383)

This invention relates to mouthpieces for reed musical instruments such as clarinets, saxophones and the like, and its general object is to provide a mouthpiece including means for adjusting the reed to vary the space between the tip thereof and the lip of the lay, so as to not only change the tone quality of the instrument, but the adjustable feature makes it possible to use hard or soft reeds with equal efficiency, as well as eliminates the necessity of shaving the reeds, which sometimes results in damaging the reed to an extent that it is rendered useless.

A further object is to provide a mouthpiece that includes means to bring about the adjustment referred to in an easy and expeditious manner and with minimum effort on the part of the user, without removing any of the parts of the mouthpiece.

Another object is to provide a reed adjusting mouthpiece that is simple in construction, inexpensive to manufacture, and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a longitudinal sectional view taken through the mouthpiece which forms the subject matter of the present invention.

Figure 2 is a bottom plan view thereof with the reed and ligature or reed clamp removed and with parts broken away and in section.

Figure 3 is a sectional view taken approximately on line 3—3 of Figure 1, looking in the direction of the arrows.

Figure 4 is a perspective view of the lay plate.

Referring to the drawing in detail, it will be noted that my mouthpiece is of the usual hollow, tubular construction to provide a body 1, beveled lip portion 2 and nipple 3, but the lay portion is longitudinally recessed from the mouth opening 4 to the nipple to provide a seat 5 for the lay plate 6, so that the latter is countersunk with respect to the mouthpiece, as will be apparent. The opening 4 extends a considerable distance within the recess, and the extending portion is rounded at its inner end as well as provides a seat for a substantially U-shaped flange 8 formed on and rising from the marginal edge of a recess extending into the outer end portion of the lay plate, as best shown in Figure 4. The recess of the lay plate provides arms that have their outer ends mounted against shoulders at the outer ends of the lay plate seat, and the seat for the lay plate, as well as the latter is tapered outwardly from its inner to its outer end, as best shown in Figure 2, so that the lay plate is fittingly associated within its seat but is capable of rocking movement, with the shoulders acting as fulcrum points therefor.

Rotatably mounted on the nipple 3 is an adjusting collar 9 provided with a serrated flange 10 to facilitate rotation thereof and the collar is circumferentially slotted as at 11 to receive a pin 12 to limit the rotary movement of the collar, as will be apparent upon inspection of Figure 2. The inner face of the collar has an annular groove 13 disposed therein and eccentrically arranged with respect thereto so as to act as cam means and mounted in the groove 13 is a lug 14 formed on and centrally extending from the inner end of the lay plate, as best shown in Figure 2.

Resting upon the lay plate and held accordingly thereon by a ligature or clamp 15 of the usual construction, is the reed 16 which is likewise of the type generally employed for instruments of this character. However, due to the adjustable feature of my mouthpiece, either hard or soft reeds having beveled faces of various thicknesses can be used with equal efficiency.

From the foregoing description and disclosure in the drawing, it is believed that the use of my mouthpiece to bring about the adjustment of the reed will be obvious, but it might be mentioned that such adjustment is brought about merely by rotating the collar 9 which is not only limited in its movement on the nipple 3 by the pin 12, but the latter holds the collar thereon, so that the lug 14 will be seated in the groove at all times. Upon rotating the collar 9, the cam surface of the annular groove 13 due to its engagement with the lug 14, will rock the lay plate and thereby move the reed accordingly so as to vary the space between the tip or beveled face of the reed and the lip of the lay, as shown in full and dotted lines in Figure 1, with the result it will be seen that adjustment can be made without removing the mouthpiece from its instrument, and the adjustment can be made with extreme accuracy and in an easy and expeditious manner, and of course makes it possible to use the reed for a prolonged period of time, thereby eliminating frequent replacement as is necessary at present.

It is thought from the foregoing description

that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A mouthpiece for a reed musical instrument, comprising a hollow body, a beveled lip portion formed on one end of the body and having a mouth opening therein, a nipple at the opposite end of the body, a lay plate seated in the body for rocking movement, a reed carried by the plate and having its tip portion contiguous with the opening for controlling the same, cam means mounted on the nipple and connected to the plate for rocking the latter for adjusting the tip portion of the reed with respect to the opening.

2. A mouthpiece for a reed musical instrument, comprising a hollow body, a beveled lip portion formed on one end of the body and having a mouth opening therein, a nipple formed on the opposite end of the body and the latter being longitudinally recessed to provide a seat, a lay plate countersunk in the seat for rocking movement, a reed carried by the plate and having its tip portion contiguous with the opening for controlling the same, a collar mounted for rotation on the nipple and including cam means, and means formed on and extending from the lay plate and engaged with the cam means for rocking the lay plate for adjusting the tip portion of the reed with respect to the opening upon rotation of the collar.

3. A mouthpiece for a reed musical instrument, comprising a hollow body, a beveled lip portion formed on one end of the body and having a mouth opening therein, a nipple formed on the opposite end of the body and the latter being longitudinally recessed to provide a seat, a lay plate countersunk in the seat for rocking movement, a reed carried by the plate and having its tip portion contiguous with the opening for controlling the same, a collar mounted for rotation on the nipple and having a groove eccentrically arranged therein to provide cam means, a lug formed on the lay plate and extending into the groove for engagement with the cam means for rocking the lay plate for adjusting the tip portion of the reed with respect to the opening upon rotation of the collar, and clamping means surrounding the body for securing the reed on the plate.

4. A mouthpiece for a musical instrument, comprising a hollow body, a beveled lip portion formed on one end of the body and having a mouth opening therein, a nipple formed on the opposite end of the body and the latter being longitudinally recessed to provide a seat, a lay plate countersunk in the seat for rocking movement, said opening extending into the recess to provide lateral shoulders, said lay plate being recessed to form arms having their outer ends mounted in the shoulders for the latter to provide fulcrum points for the lay plate, a flange rising from the lay plate and shaped to follow the extending portion of the opening for slidable fitting association therewith, a reed carried by the lay plate and having its tip portion contiguous with the opening for controlling the same, a collar mounted for rotation on the nipple and including cam means, means formed on and extending from the lay plate and engaged with the cam means for rocking the lay plate for adjusting the tip portion of the reed with respect to the opening upon rotation of the collar, serrated means to facilitate rotation of the collar, and a ligature surrounding the body for securing the reed on the plate.

DANIEL LUDWIG FAUSS.

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Fig. 1.

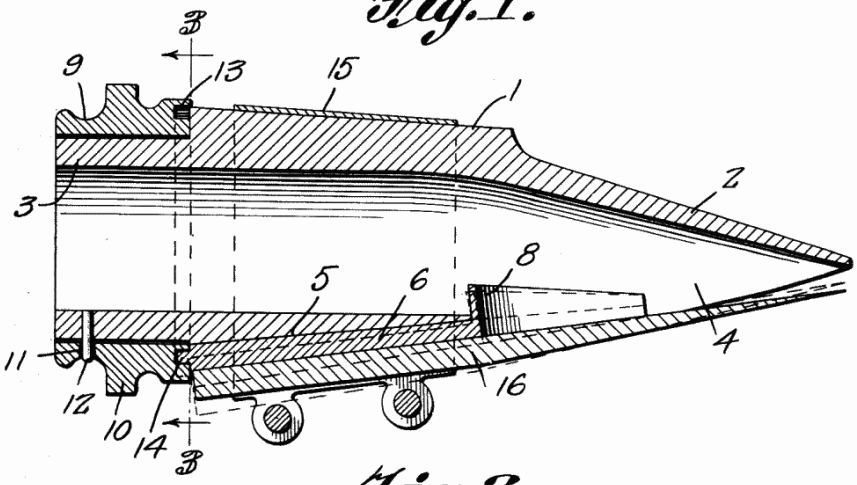



Fig. 2.

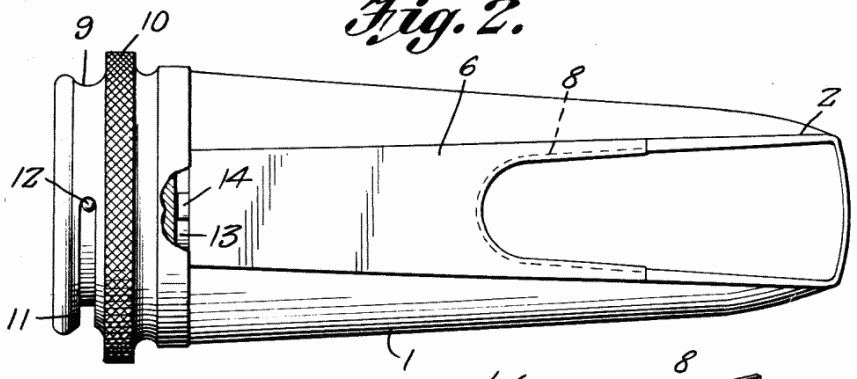



Fig. 3

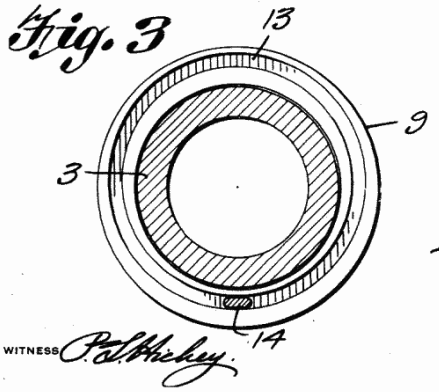
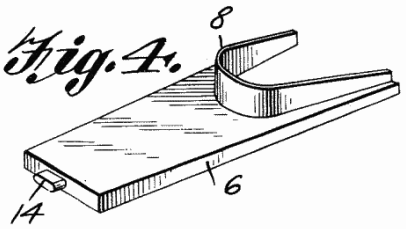



Fig. 4.




Daniel L. Fauss,
INVENTOR

By Victor J. Evans & Co.
ATTORNEYS

WITNESS P. L. Hickey.