

UNITED STATES PATENT OFFICE

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VOLUME CONTROLLED SAXOPHONE
MOUTHPIECE

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4 Claims. (Cl. 84—383)

1

The present invention relates generally to musical wind instruments of the clarinet type, and more specifically to an improved volume controlled saxophone mouthpiece or beak, for the instrument, by means of which an unlimited control of the available volume of wind passing through the mouthpiece, may be attained by the musician or saxophone player. The mouthpiece is fashioned as an integral article of manufacture, from molded plastic material, with facility and low cost of production, and it may with convenience be attached to the tube of the saxophone to provide a comfortable and durable technically correct appliance, which may with equal facility be removed when desired.

The molded, integral appliance is fashioned with the necessary contour, shape, and formation that permit facile mounting on the instrument without necessity for the use of special fastening devices, and the reinforced strength and space of the mouthpiece renders it durable and practically free from breakage due to excess moisture or pressure.

Means are provided for securing or affixing the reed to the reed-opening in such manner as to eliminate the probability of warping of the reed and avoiding buzzy-reedy tones, and due to the mounting of the reed less pressure thereon is required in the production of the musical tones in the instrument.

The invention consists essentially in an integral article of manufacture, in which its parts are combined and arranged, as will hereinafter be described and more particularly set forth in the appended claims. In the accompanying drawings I have illustrated a complete example of a physical embodiment of my invention wherein the parts are combined and arranged in accord with one mode I have devised for the practical application of the principles of the invention. It will however be understood that changes and alterations are contemplated and may be made in these exemplifying drawings and structures, within the scope of my claims, without departing from the principles of the invention.

Figure 1 is a top plan view of a mouthpiece in which my invention is embodied; Figure 2 is a side view of the mouthpiece; and Figure 3 is a bottom view showing the reed-opening.

Figure 4 is a longitudinal vertical sectional view through the mouthpiece at line 4—4 of Fig. 3.

Figures 5 and 6 are respectively, transverse sectional views at lines 5—5 and 6—6 in Fig. 1 through the intake duct and reed opening; and

2

Figures 7 and 8 are respectively, transverse sectional views at lines 7—7 and 8—8 in Fig. 1 through the body of the mouthpiece.

As indicated in the exterior views of the drawings, the mouthpiece or beak is provided with an exterior flat plane face 1, upon which the reed is mounted to project over the longitudinally extending and elongated U-shaped intake slot or opening that is bounded by the opposed edge walls 2, and 3. The top of the mouthpiece is fashioned with a convexly curved face 4 for the upper lip, which face converges with the lower plane face against which the lower lip presses.

The body 5 of the mouthpiece has an exterior taper toward its free end or mouth, and the body is formed with an interior cylindrical chamber 6 that opens through a reduced base or collar 7 into, and by means of which, the mouthpiece is attached on the tube of the instrument or saxophone. To insure durability and prevent breakage the cylindrical base or attaching collar is reinforced by means of a pair of diametrically arranged and longitudinally extending lugs or wings 8, 8, the outer edges of which merge with the exterior surface of the tapered piece.

The open cylindrical chamber 6 merges with the intake duct 9 having the usual interior flat wall 10, and this outwardly flaring interior duct, from its mouth to its inner end, is divided by an integral wall or partition 11 of elongated triangular shape, having its apex terminating at the mouth of the intake duct and its wider end projecting, slightly, into the chamber 6. The exterior edge 12 of the partition is flush with the plane face 1 of the mouthpiece, and the inner end 13 of the partition terminating within the chamber 6 and disposed transversely of the chamber, afford a rigid and strongly braced sustaining element for the vibrating reed bridging the U-shaped opening of the mouthpiece.

The partition or separator, while extending, generally, longitudinally of the mouthpiece, is arranged diagonally of the intake duct and opening, its inner end 13 terminating at or approximately near the center of the chamber 6 and its outer or apex end terminating laterally of the mouth of the intake duct, to provide two separated spaces of different volume capacities within the intake duct.

The diagonally extending baffle wall or partition 11 enables the musician or saxophone-player to provide an unlimited control of the available volume of wind passing through one or the other of the passages, or jointly through both passages of the duct, in the interpretation of a musi-

3

cal score, and thereby enhances the artistry of the instrument player.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A molded plastic and integral mouthpiece, for a saxophone, having a reed-opening and an interior intake duct, and a longitudinally extending diagonally arranged partition dividing the duct into separated passages of different volume capacities.

2. As an article of manufacture, plastic integral mouthpiece for a saxophone, said mouthpiece having an opening over which the forward part of a reed is positioned and an interior intake duct, a longitudinally extending diagonally arranged partition of elongated triangular shape dividing the duct into separated passages of different volume capacities, and said partition having an outer edge flush with the plane of the walls of the reed opening.

3. In a mouthpiece for a musical instrument of the reed type, the combination which comprises a substantially hollow body member having a tubular mounting base and a tone chamber including an inclined upper wall near the forward end of the body member, side walls and a base with an opening in the base opposite said upper wall and over which the forward part of a reed is to be positioned, and a vertically positioned longitudinally disposed partition extended downwardly from said upper wall with the lower edge thereof positioned to engage the reed and dividing said tone chamber into separated compartments for controlling the volume of sound, the outer end of said partition being positioned closer to one of said side walls than to the other and with the opposite or inner end thereof positioned substantially on the center of the body member.

4. In a mouthpiece for a musical instrument for the reed type, the combination which comprises a

4

substantially hollow body member having a tubular mounting base and a tone chamber including an inclined upper wall near the forward end of the body member, side walls and a base with an opening in the base opposite said upper wall and over which the forward part of a reed is to be positioned, and a vertically positioned longitudinally disposed partition extended downwardly from said upper wall with the lower edge thereof positioned to engage the reed and dividing said tone chamber into separated compartments for controlling the volume of sound, the outer end of said partition being positioned closer to one of said side walls than to the other and with the opposite or inner end thereof positioned substantially on the center of the body member, said tubular base having a bore communicating with the said tone chamber and the inner end of said partition extended into the said bore of the base.

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Fig. 1.

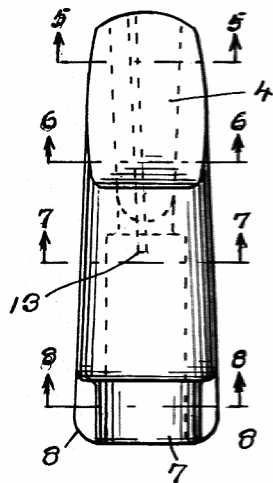


Fig. 2.

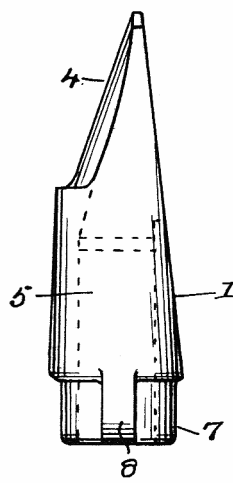


Fig. 3.

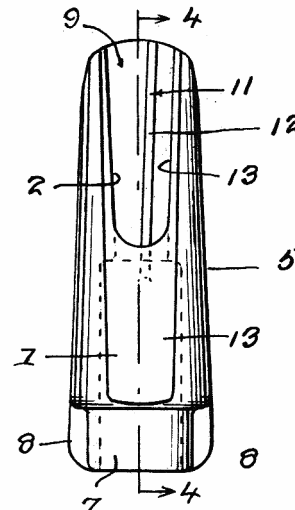


Fig. 4.

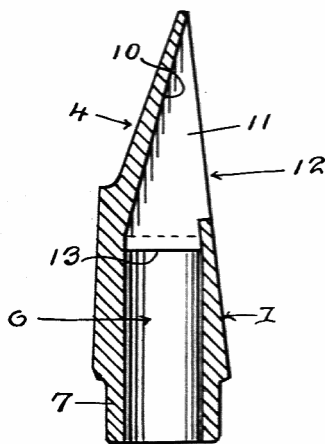


Fig. 5.

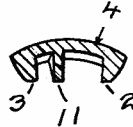


Fig. 6.

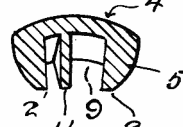


Fig. 7.

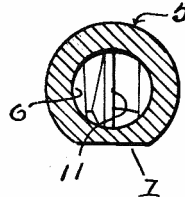
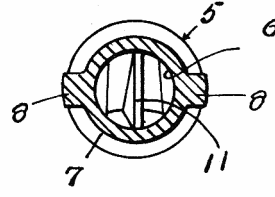


Fig. 8.



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