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1,449,868

B. MILLER

MOUTHPIECE FOR REED INSTRUMENTS

July 8, 1921

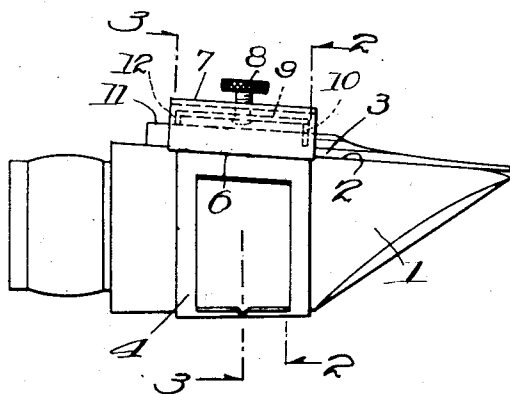


Fig. 1.

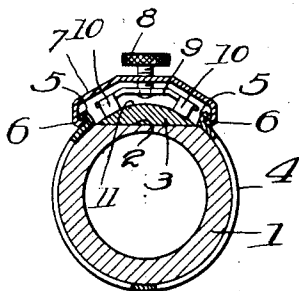


Fig. 2.

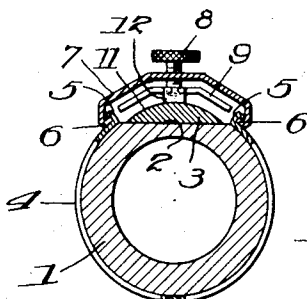


Fig. 3.

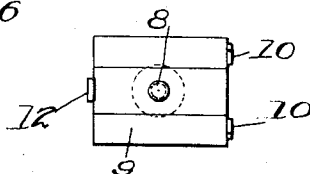


Fig. 4.

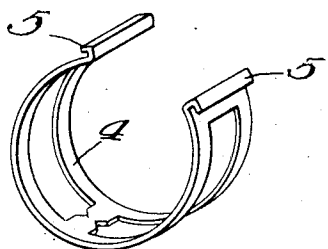


Fig. 5.

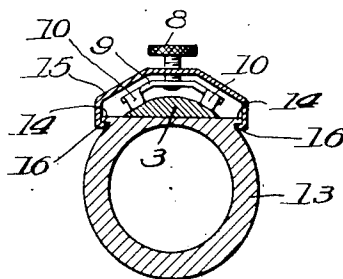


Fig. 6.

Inventor:
Benjamin Miller,

Witness:
[Signature]

by [Signature] & [Signature]
his Attys.

UNITED STATES PATENT OFFICE.

BENJAMIN MILLER, OF CHICAGO, ILLINOIS.

MOUTHPIECE FOR REED INSTRUMENTS.

Application filed July 8, 1921. Serial No. 483,193.

To all whom it may concern:

Be it known that I, BENJAMIN MILLER, a citizen of the United States, having residence at Chicago, in the county of Cook and the State of Illinois, have invented certain new and useful Improvements in Mouthpieces for Reed Instruments, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The purpose of this invention is to provide a ligature or clamp for securing in position on the mouthpiece the reed of a wind instrument in a manner to permit adjustment of the reed thereon as may be desired. It consists of the features and elements of construction hereinafter described and shown in the drawings as indicated by the claims.

In the drawings:—

Figure 1 is a side elevation of a mouthpiece and a clamping device thereon embodying this invention.

Figure 2 is a transverse section taken as indicated at line 2—2 on Figure 1.

Figure 3 is a transverse section taken as indicated at line 3—3 on Figure 1.

Figure 4 is a detail bottom plan view of the pressure member of the clamping device.

Figure 5 is a detail perspective view of the holding band for the clamping device.

Figure 6 is a transverse section taken similarly to Figure 2 but representing a modified form of the invention.

As shown in the drawings the mouthpiece, 1, has a body portion which is slightly tapered or conical with a flattened upper surface, 2, against which the reed, 3, is clamped. Many clamping devices have been heretofore proposed and used for holding such a reed in position but in very few instances have they been so designed that the clamping pressure upon the reed was applied directly toward the flat surface, 2, so that after the parts were placed the clamping device could be relied upon to secure them accurately in such position. The tendency of most clamps is to draw the reed over toward one side or the other or to slip it longitudinally during the clamping adjustment. My invention provides clamping means which so distributes the pressure and applies it to the reed that there is no tendency for the latter to slip during the tightening of the clamp.

As shown in Figures 1 to 5, this structure

comprises a holding band, 4, preferably of metal and formed with turned back or hooked end portions, 5, which interlock with the hooked edges, 6, of a metallic bridge member, 7, dimensioned to extend over the flattened area, 2, of the mouthpiece and clear of the reed, 3, thereon. In the bridge, 7, a clamp screw, 8, is carried by threaded engagement with the bridge and operates upon a pressure member or plate, 9, interposed between the bridge, 7, and the reed, 3. Preferably the plate, 9, is permanently assembled with the bridge, 7, by being swivelly attached to the end of the clamp screw, 8.

For distributing the pressure of the clamp screw upon the reed, the pressure plate, 9, is formed with three projecting lugs or feet, two of which, 10, 10, are positioned at one end of the plate and laterally separated. The upper surface, 11, of the reed, 3, is usually convex and as shown I prefer to bend the bridge, 7, and the pressure plate, 9, to conform approximately to this shape; the projecting feet, 10, 10, are formed to extend toward the convex surface, 11, of the reed in substantially radial directions and therefore obliquely with respect to each other. At the opposite end of the plate, 9, a single pressure foot, 12, extends toward the reed for encounter therewith substantially at the middle of its width. Thus the pressure transmitted through the plate, 9, is uniformly distributed transversely of the reed and the oblique arrangement of the two feet, 10, 10, operates to prevent lateral shifting of the reed with respect to the clamping device or the mouthpiece.

The holding band, 4, being somewhat flexible and the clamp screw, 8, having considerable range of adjustment in the bridge, 7, permits the entire device to be slidably adjusted upon the mouthpiece and securely fixed at any desired position within this range. For removing the bridge, 7, it is only necessary to release the clamp screw, 8, and slide the bridge over the reed for disengaging its hooked edges, 6, from the hooks, 5, of the band, 4. As a modification of this arrangement, the mouthpiece itself may be formed as shown at 13 in Figure 6 having longitudinally extending ribs, 14, with which the hooked ends, 16, of the bridge member, 15, may be slidably engaged in applying the pressure to the mouthpiece. This does not alter the construction of the pressure plate, 9, or the clamp screw, 8, these

parts being shown in Figure 6 as exactly similar to the corresponding elements of the preferred form of the invention.

I claim:—

- 5 1. A reed clamping device for a mouth-
piece for musical instruments comprising
a bridge member, and means on the mouth-
piece by which the bridge member is dis-
engageably held extending over the reed,
10 said means comprising parallel longitudinal
guideways on the mouthpiece, the bridge
member having means for slidably engaging
said guideways, and clamping means on the
bridge adjustable toward and from the reed.
- 15 2. A reed clamping device for a mouth-
piece for musical instruments comprising a
bridge member and means on the mouth-
piece by which said bridge member is dis-
engageably held extending over the reed
20 comprising a band partially encircling the
mouthpiece having its ends provided with
parallel guideways extending longitudi-
nally of the mouthpiece, the bridge member
having means for slidably engaging said
25 guideways, and clamping means on the
bridge adjustable toward and from the
reed.
3. A reed clamping device for a mouth-
piece for musical instruments comprising a
30 bridge member and means on the mouth-
piece by which said bridge member is dis-
engageably held extending over the reed,
comprising a band partially encircling the
mouthpiece and formed with hooked ends,
35 said bridge member having hooked portions
adapted to interlock with the ends of the
band, and clamping means on the bridge
adjustable toward and from the reed.
4. A reed clamping device for a mouth-
40 piece for musical instruments comprising a
bridge member and means on the mouth-
piece by which said bridge member is dis-
engageably held extending over the reed, a
clamp screw in said bridge member adjusta-
45 ble toward and from the reed and a pressure
member interposed between the reed and
the clamp screw comprising a tripod plate
of which two feet are at the forward end
and one foot is at the rearward end, said
50 two feet engaging the reed respectively at
opposite sides of the medial longitudinal
line of the forward end and the third foot
substantially at the medial line of the rear-
ward end of the plate.
5. A reed clamping device for a mouth-
55 piece for musical instruments comprising a
bridge member and means on the mouth-
piece by which said bridge member is dis-
engageably held extending over the reed, a
clamp screw in said bridge member adjusta-
60 ble toward and from the reed, and a pres-
sure member interposed between the reed
and the clamp screw comprising a tripod
plate having two feet at one end laterally
separated and extending obliquely toward
65 each other for substantially radial engage-
ment with the convex surface of the reed to
be lodged on the mouthpiece and having a
single foot projecting at the other end for
engaging the medial portion of the reed.
6. The combination defined in claim 1,
70 together with means by which the pressure
member is permanently engaged with the
bridge consisting of the clamp screw which
is swiveled in the bridge.

In testimony whereof, I have hereunto
set my hand at Chicago, Illinois, this 6th
day of July, 1921.

BENJAMIN MILLER.