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UNITED STATES PATENT OFFICE.

HIPPOLYTE M. CHIRON, OF NEW YORK, N. Y.

LIGATURE FOR MOUTHPIECES OF MUSICAL INSTRUMENTS.

Application filed May 27, 1925. Serial No. 33,113.

To all whom it may concern:

Be it known that I, HIPPOLYTE M. CHIRON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Ligatures for Mouthpieces of Musical Instruments, of which the following is a specification.

My invention includes a device termed a ligature which can be securely fixed upon a mouthpiece in such manner that a reed may be changed or regulated without disturbing the position of the ligature. The present type of mouthpiece is equipped with a ligature which must be removed or partly detached from the mouthpiece in order to change or regulate the reed. After adjusting a reed on the lay of a mouthpiece, the ligature must be placed back on the mouthpiece in a desirable position, but it is impossible to put the ligature at the same place, for the reason that the operator has one hand occupied in maintaining the instrument, clarinet, or saxophone, in a convenient position, and with the other hand, must accomplish the twofold purpose of keeping the reed in place in the desirable position and at the same time secure the bands or rings of the ligature in place. This cannot be very well accomplished, as by holding the reed in place on the table of the mouthpiece and at the same time securing the ligature, one or the other is apt to shift. It is a desirable feature with this type of device that the ligature be constructed in such manner as to permit one hand to adjust the reed in exactly the same position from which it has been removed so that the same tone may be had from the instrument.

The above and other objects will become apparent in the description below, in which characters of reference refer to like-named parts in the drawing.

Referring briefly to the drawing, Figure 1 is a longitudinal elevational view of the mouthpiece, showing the reed and reed ligature attached thereto.

Figure 2 is an end elevational view of the same.

Figure 3 is a top plan view of Figure 1.

Figure 4 is a cross sectional elevational view taken on line 4-4 of Figure 1, showing the means of guiding the reed into place upon the lay of the mouthpiece.

Figure 5 is a perspective view of the ligature arch.

Referring in detail to the drawing, the numeral 10 indicates the body of a clarinet or saxophone mouthpiece which is attached to the musical instrument in the well known manner, the end 11 being attached to the instrument. These mouthpieces ordinarily consist of a conically shaped body having a flat surface 12, termed a lay thereon on which a reed 13 is normally seated. The reed provided with this form of mouthpiece consists of a flat tapering bamboo member. The reed fastening means, called a ligature, is comprised of an arcuate plate 15 which partly encircles the bottom of the mouthpiece body and from its side edges has straps 16 and 17 extending completely around the body of the mouthpiece. These straps 16 and 17 are spaced-apart from each other and between them, additional straps 18 are provided. The arcuate plate is integral with the straps 18 which latter extend upwardly and are slitted at a position above the lay or flat surface 12 of the mouthpiece. These straps 18 are longer than the straps 16 and 17 and create a space above the lay 12 of the mouthpiece in which an arcuate arch 19 is inserted. This arch at its opposing ends is provided with feet 19^a which lift said arch above the lay of the mouthpiece and lie in contact with the peripheral surface. Within the gap, the reed 13 is slidable and has ample room for adjustment therein. The straps 18 have their adjoining ends parted and the ends are provided with lugs 20 and 21 on opposite sides of the part, as illustrated in Figure 4. The lug 20 has a clear hole passing there-thru and the opposite lug 21 is provided with an aligned threaded hole. Into these aligned holes, a screw 22 is inserted, the threaded end of the screw engaging the threaded hole in the lug 21. The straps 16 and 17 are also parted which parted ends are provided with blocks 23 and blocks 24. The blocks 24 are provided with clear holes. The threaded holes in the blocks 23 receive the threaded ends of thumb screws 25 and are engaged thereby.

The device consisting of the straps 16, 17, and 18, comprises a structure which is termed a ligature of a mouthpiece. In the usual ligature, when removing the reed or changing its position, the same must be detached or partly detached in order to permit free play of the reed. It is exceedingly difficult to replace the ligature in the exact position in which it was originally. To

eliminate this difficulty, the straps 18 are elongated with this type of ligature so that the arch 19 may be slipped under the parted ends of the straps 18 with the feet 19^a of the arch in contact with the periphery of the mouthpiece 10. By inserting the arch 19 into place beneath the ends of the straps 18, a gap is created beneath the arch suitable for the reception of the reed 13. When this arch has been positioned over the lay 12 of the mouthpiece in its desirable location, the screw 22 is manipulated so as to secure the ligature in place on the mouthpiece. When this has been accomplished, the thumb screws 25 which clamp the straps 16 and 17 and secure the reed 13, may be rotated to fix or loosen the reed, accordingly as desired, without disturbing the ligature from its fixed position.

20 I claim:—

1. A ligature comprising a member having three straps in combination with two thumb screws and a third screw, two of said straps each being tightened by a thumb screw for maintaining the reed on the lay of a mouthpiece, the third strap being adapted to be secured by a screw for maintaining the ligature in fixed position on the mouthpiece.

2. A ligature comprising a member having three straps arranged side by side, an arch adapted to be secured beneath one of said straps, feet on said arch adapted to rest upon each side of the lay on the mouthpiece, a screw engaging one of said straps for securing the arch and ligature in fixed position on the mouthpiece.

3. A ligature comprising a member having three straps, screws engaging said

straps, two of said straps being adapted to maintain a reed in place, an arch, a strap fixing said arch in place, feet on said arch, said feet raising the arch above the lay on the mouthpiece forming a passage for the reed.

4. In a saxophone and clarinet mouthpiece, a body having a lay thereon, a reed seated on said lay, fastening means comprising a ligature, said ligature having two pair of straps adapted to secure said reed in place on the lay, an additional pair of separate straps between the first-named straps, and an arch adapted to be inserted beneath the last-mentioned strap for securing said ligature on the mouthpiece.

5. In a saxophone and clarinet mouthpiece, a body having a lay thereon, a reed seated on said lay, reed fastening means mounted on said mouthpiece and comprising a ligature, said ligature having a pair of spaced-apart ends of straps, the straps being positioned over the lay of the mouthpiece, screws joining said ends, said straps being adapted to clamp the reed in place on the mouthpiece, additional straps forming part of said ligature and adapted to envelope the mouthpiece body, an arch adapted to span said reed and mounted beneath the last-mentioned straps, feet on said arch raising the latter to permit ready insertion of the reed under the arch, and a screw on the last-mentioned straps for securing the arch and ligature fast to the body to permit loosening or other adjustment of the first-mentioned straps with the ligature rigid on said body.

In testimony whereof I affix my signature.

HIPPOLYTE M. CHIRON.

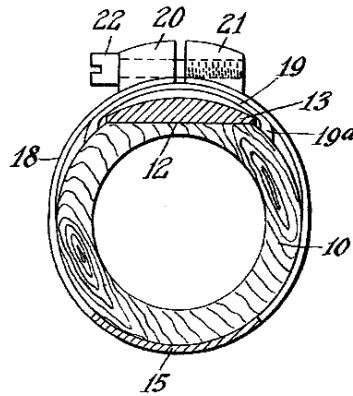
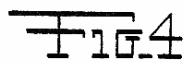
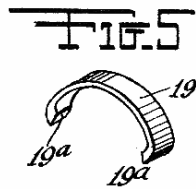
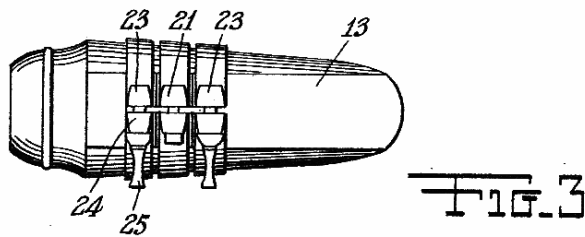
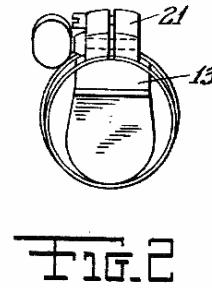
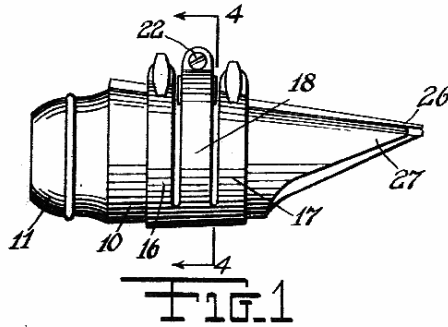
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