Sept. 8, 1925. 1,553,081

G. B. HUMES

REED MUSICAL INSTRUMENT

Filed June 7, 1923

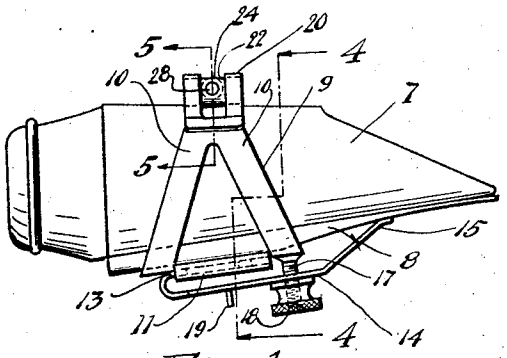

Fig. 1

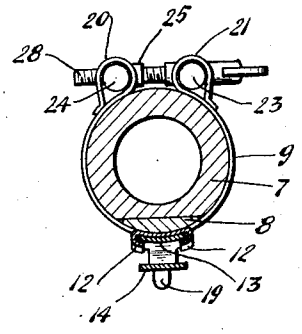

Fig. 4

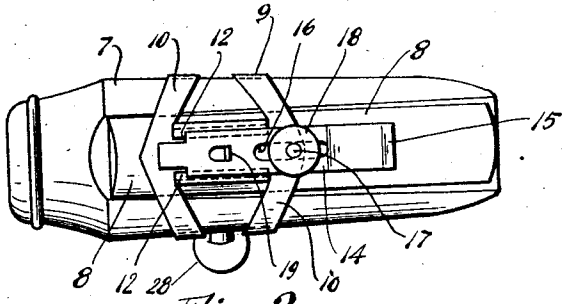

Fig. 2

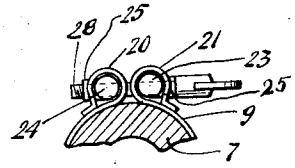

Fig. 6

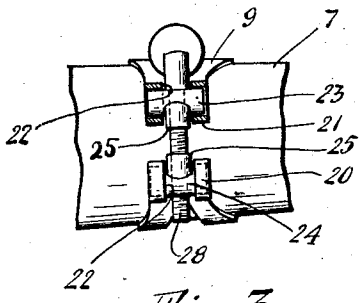

Fig. 3

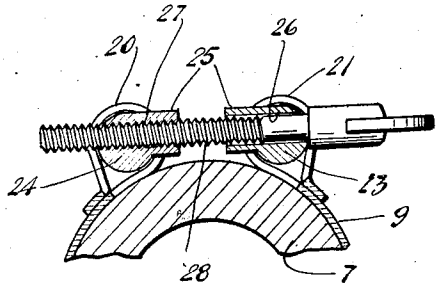

Fig. 5

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By Joshua R. H. Cobb
His Attorney

Patented Sept. 8, 1925. 1,553,081

UNITED STATES PATENT OFFICE.

GUY B. HUMES, OF CHICAGO, ILLINOIS.

REED MUSICAL INSTRUMENT.

Application filed June 7, 1923. Serial No. 643,905.

To all whom it may concern:

Be it known that I, GUY B. HUMES, a citizen of the United States, and a resident of the city of Chicago, county of Cook and State of Illinois, have invented certain new and useful Improvements in Reed Musical Instruments, of which the following is a specification.

This invention relates to reed musical instruments, and more particularly to the mouth pieces thereof, and has for its object the provision of a device for securing a reed upon said mouth piece, together with means for adjustably varying the vibratory length of said reed, and for adjusting the pressure of said varying means upon said reed.

Another object of the invention is to provide a novel clamping means for the reed holding device, so as to adapt the same for application to mouth pieces of various sizes.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,—

Fig. 1 is a side elevation of the mouth piece of a reed musical instrument, showing the invention applied thereto;

Fig. 2 is a bottom plan view of such mouth piece, showing the invention applied thereto;

Fig. 3 is a fragmentary view of the mouth piece showing a top plan view, partially in section, of the clamping means used in conjunction with the invention;

Fig. 4 is a view of the invention partially in section, upon the line 4—4 of Fig. 1;

Fig. 5 is a fragmentary enlarged sectional view of the invention upon the line 5—5 of Fig. 1; and

Fig. 6 is a fragmentary partial sectional view of the clamping means in a different position from that shown in Figs. 4 and 5.

The invention herein contemplated consists partly of improvements upon the general idea as disclosed in applicant's prior Patent No. 1,446,623, dated February 27, 1923. Referring to the drawings, 7 represents a mouth piece of the type ordinarily provided upon a reed musical instrument, such as a saxaphone, a vibratory reed 8 being adapted for application thereto in the ordinary manner. Preferably held upon the mouth piece 7 in a manner hereinafter to be explained, is a clamping member 9, which preferably includes spaced straps 10 disposed about the mouth piece in position to hold the reed 8 thereon. Preferably secured to the straps 10 of the clamping member 9 in any suitable manner, is a member 11 having oppositely disposed inturned flanges 12 providing guides. Slidably mounted beneath the flanges 12 of the member 11 is the inturned end 13 of a resilient finger 14, the outer end 15 of the finger 14 being turned toward and adapted to engage the reed 8. The finger 14 is also preferably provided with a slot 16 adapted to be slidably mounted upon a threaded stud 17, there being a thumb nut 18 threaded upon the outer end of such stud. The finger 14 is also preferably provided with a finger piece 19 as shown.

In order to vary the vibratory length of the reed 8, the thumb nut 18 is loosened on the stud 17 so that the finger 14 may be moved to different positions along the length of the reed 8, such finger being guided in its sliding movements by the slot 16, and the flanges 12, the portion 19 providing a convenient means for engagement by the fingers for imparting the sliding movements to the finger 14. It is also to be noted that when the finger 14 has been moved to its desired position of adjustment, the pressure thereof upon the reed 8 may be adjustably varied by movement of the thumb nut 18.

I have provided particular means for securing the clamping member 9 upon mouth pieces like 7 of different sizes. Such means preferably consists in providing the adjacent ends of the clamping member 9 with bearing members in the form of transversely disposed rings 20 and 21, each of which has a slot 22, and mounted for rotation in said rings are cylindrical bearing members 23 and 24, each of which preferably has an eccentrically mounted boss 25 for securing said cylindrical bearing members 23 and 24 in the rings 20 and 21. The bearing member 23 is preferably provided with an eccentrically disposed smooth bore 26 extending through the bearing member 23 and the boss 25 and the bearing member 24 preferably is provided with an eccentrically disposed threaded bore 27, extending through the bearing member 24 and the boss 25. A screw threaded stem 28 is projected through the bores 26 and 27, so that when the stem

25 is rotated, it will draw the ends of the clamping member together, the pivotal mounting of the bearing members 23 and 24 compensating for the movement between the ends of the clamping member. The eccentrically disposed bores in said members cause the bearing members 23 and 24 to bear inwardly upon the stem 28, and as frequently in actual use the stem 28 may be smaller than the bore 27, and as the threads on the stem 28 are often stripped, this feature becomes important, since the eccentric disposition of the bores causes a bearing of the members 23 and 24 at an angle to the stem 28, and consequently affords purchase even though the threads are partially stripped or the stem 28 too small. It is also to be noted that if the mouth piece to which the bracket is to be applied is very small, the bosses 25 may be turned outwardly as shown in Fig. 6 so that the ends of the clamping member may be drawn into close proximity to each other.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. A clamping member adapted to be mounted on wind musical instruments of various sizes for holding the vibratory tongue in position thereon, pivotally mounted bearing portions provided adjacent the ends of said clamping member, said bearing portions being provided with eccentrically disposed bores, and a member projected through said bores and arranged to move said portions with respect to each other, substantially as described.

2. An adjustable clamp including a member arranged for disposition about an object, said member being provided with pivotally mounted bearing portions adjacent its ends, said bearing portions having eccentrically disposed bores; and means arranged in said bores and adapted to secure the ends of said member together, the eccentricity of said bores in said bearing portions causing them to bind on said means for preventing release movement thereof, substantially as described.

3. An adjustable clamping device including a member arranged for disposition about an object, said member being provided with bearing members adjacent its ends, each of said bearing members being in the form of rings spaced by a slot; cylindrical portions rotatably mounted in said rings, each of said cylindrical portions being provided with a boss movably disposed in the slot between the rings of said bearing members, there being bores eccentrically disposed through said cylindrical portions and extending through said bosses; and means disposed in said bores and arranged to secure said portions together, the eccentricity of said bores causing the outer parts of said bosses and bearing portions to bear down and bind on said means for preventing release movement thereof, substantially as described.

4. An adjustable clamping device including a member arranged for disposition about an object, said member being provided with bearing members adjacent its ends, each of said bearing members being in the form of rings spaced by a slot; cylindrical portions rotatably mounted in said rings, each of said cylindrical portions being provided with a boss movably disposed in the slot between the rings of said bearing members, there being bores eccentrically disposed through said bearing portions and extending through said bosses; a threaded stem extending through said bores having threaded engagement with one of said portions, and being provided with means for rotation of said stem, the eccentricity of said bores causing the outer parts of said bosses and bearing portions to bear down and bind on said threaded stem for preventing release movement thereof, substantially as described.

In testimony whereof I have signed my name to this specification.

GUY B. HUMES.