United States Patent

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[54] **SHEET MUSIC HOLDER FOR TROMBONES AND THE LIKE**
5 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **84/453,** 248/443
[51] **Int. Cl.** **G10g 5/00**
[50] **Field of Search** 84/453, 387, 395; 248/443

[56] **References Cited**

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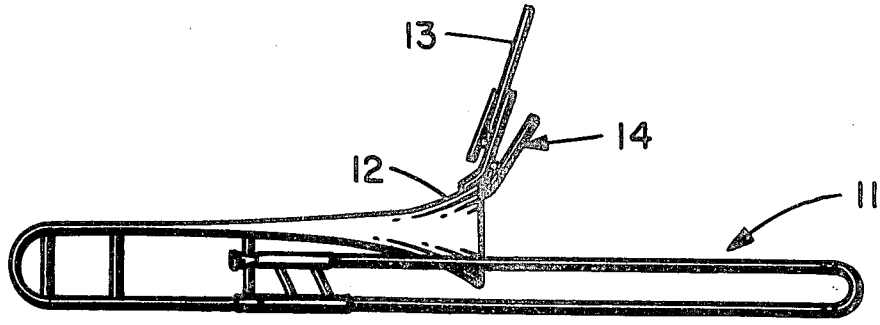
ABSTRACT: A sheet music holder attachable to a trombone or the like having an operationally vertically elongated central member formed of sheet material. a sheet music clamp element outer jaw member having an upper extremity urged by spring means towards the upper extremity of a front surface of the central member for clamping sheet music disposed therebetween and a musical instrument clamp element outer jaw member having a lower extremity urged by spring means towards the lower extremity of a rear surface of the central member for clamping the rim of the bell portion of a trombone disposed therebetween. The portions of the sheet music holder positionable adjacent the trombone bell portion are shaped to substantially conform thereto, and are covered with felt or other similar resilient cushioning material.



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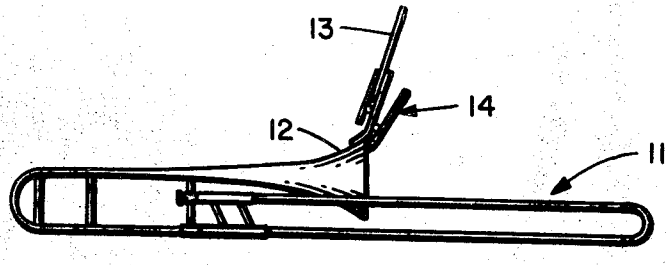

FIG. 1

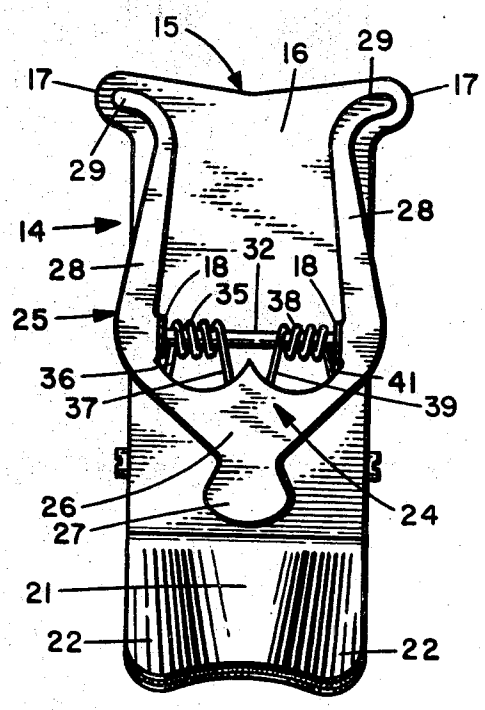

FIG. 2

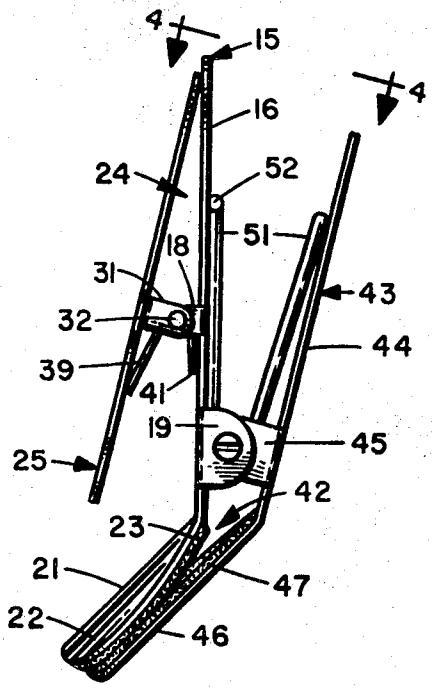

FIG. 3

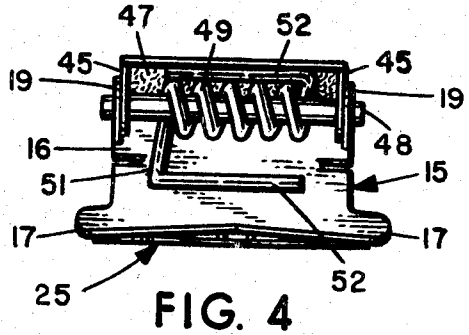

FIG. 4

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SHEET MUSIC HOLDER FOR TROMBONES AND THE LIKE

This invention relates generally to a sheet music holder, and more particularly to a simple and compact device of this type readily attachable to and detachable from the rim of the bell portion of a trombone, trumpet, or the like.

Although many experienced band musicians who play instruments such as those mentioned hereinbefore have committed to memory their music for some of the pieces in the band's repertoire, and are able to get by without having before them the sheet music for other pieces that may be played even when they have not memorized the same, it is often necessary for such musicians, as well as those with less extensive experience, to refer to the sheet music for the piece being played. In the case of marching bands, where the musicians cannot make use of music stands place before them, it has been found necessary to make some other provision for mounting sheet music in positions readable by such musicians; usually by means of some sort of a sheet music holder interconnected with each of such instruments played. Heretofore, such sheet music holders have usually taken the form of contrivances formed of elaborately shaped and twisted wire and obviously not adapted to be readily and inconspicuously carried upon the person of a musician when the use thereof is not required. Somewhat more subtle sheet music holders also heretofore proposed as solutions of the hereinbefore mentioned problem, such as those disclosed in U.S. Pat. No. 1,209,750 (O'Leary) granted on Dec. 26, 1916, and in U.S. Pat. No. 1,539,042 (Dennis) granted on May 26, 1925, are likewise not inconspicuously disposable on a musician's person when not in use, nor are they readily attachable to and detachable from a musical instrument in such a fashion that a musician may make use thereof only when he so desires. The sheet music holder forming the subject matter of the present application, however, is believed to overcome such inadequacies of the prior art devices mentioned hereinbefore, and to present advantages not obtainable therewith.

Accordingly, an object of the present invention is the provision of an inexpensive and simple sheet music holder readily attachable to and detachable from the bell portions of musical instruments such as trombones, trumpets, and the like.

Another object of the instant invention is the provision of a simple and rugged sheet music holder for trombonists, trumpeters, and the like, compactly disposable in the musician's pocket when not in use.

Accordingly to the present invention, the foregoing and other objects are attained by providing a sheet music holder including a somewhat operationally vertically elongated central member formed of relatively thin sheet material having a front surface and a rear surface; the operational upper end of the front surface of the central member forming an inner jaw of a sheet music clamp element, and the operational lower end of the rear surface of the central member forming an inner jaw of a musical instrument clamp element. The sheet music clamp element of the sheet music holder further includes an outer jaw member pivotally interconnected at a point intermediate the operational upper and lower ends thereof with the front surface of the central member; the outer jaw member of the sheet music clamp element being spaced from the front surface of the central member at the point of pivotal interconnection thereof. Spring means disposed between the front surface of the central member and the outer jaw member of the sheet music clamp element normally urge the operational upper extremity of the outer jaw member of the sheet music clamp element towards contact with the operational upper extremity of the front surface of the central member. The musical instrument clamp element of the sheet music holder further includes an outer jaw member pivotally interconnected at a point intermediate the operational upper and lower ends thereof with the rear surface of the central member; the outer jaw member of the musical instrument clamp element being spaced from the rear surface of the central member at the point of pivotal interconnection thereof.

Spring means disposed between the rear surface of the central member and the outer jaw member of the musical instrument clamp element normally urge the operational lower extremity of the outer jaw member of the musical instrument clamp element towards contact with the operational lower extremity of the rear surface of the central member. An operational lower length of the central member may be angularly disposed with respect to the remainder of the length thereof with the angle between the front surface of these two lengths of the central member being less than 180°, and an operational lower length of the outer jaw member of the musical instrument clamp element is correspondingly angularly disposed with respect to the remainder of the length thereof; the sheet music holder thereby being clampable to the upper rim of the bell portion of a musical instrument such as those mentioned to hold the sheet music carried thereby in a position readily readable by a player. These lower lengths of the members forming the musical instrument clamp element of the sheet music holder are also somewhat conically curved to conform to the external and internal surfaces of the bell portion of the musical instrument clampable therebetween, and the areas thereof positionable adjacent the rim of the bell portion of the musical instrument are covered with a sheet of felt or other similar resilient cushioning material.

A more complete appreciation of the invention and many attendant advantages thereof will be readily apparent as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawing wherein:

FIG. 1 is a side elevational representation of a trombone having sheet music mounted thereon by means of the sheet music holder forming the subject matter of the present invention;

FIG. 2 is a front elevational view of the sheet music holder;

FIG. 3 is a side elevational view of the sheet music holder; and

FIG. 4 is a view of the sheet music holder taken looking substantially downwardly along the line 4–4 of FIG. 3.

Referring now more particularly to the drawing, wherein like reference numerals designate the same or identical parts throughout the several views, and more specifically to FIG. 1, there is depicted a trombone, generally designated by the reference numeral 11, having a bell portion 12 upon which sheet music 13 is mounted by means of the sheet music holder, generally designated by the reference numeral 14, forming the subject matter of the instant application. Turning now to FIGS. 2—4, it will be seen that sheet music older 14 includes a somewhat elongated, operationally substantially vertically disposed central member, generally designated by the reference numeral 15, formed of relatively thin and preferably metallic sheet material which, as frontally shown in FIG. 2, is of substantially rectangular outline. An operationally upper portion 16 of central member 15 extending along about three-fourths of the length thereof is planar and is provided with a rounded projection 17 extending outwardly from each side thereof adjacent the upper extremity thereof. At a position spaced somewhat below the longitudinal midpoint of upper portion 16 of central member 15, a projection 18 extends outwardly from the front surface of central member 15 and perpendicularly thereto near each of the sides thereof. Each of these parallelly disposed projections 18 may be formed by the bending through substantially a right angle of a tab initially extending outwardly from each side of central member 15, or by similarly bending material disposed between each of a pair of vertically spaced cuts made in the sides of central member 15, or by a combination of such expedients. Further, at a position spaced between projections 18 and the lower extremity of upper portion 16 of central member 15, another projection 19 extends outwardly from the rear surface of central member 15 and perpendicularly thereto near each of the sides thereof. The parallelly disposed projections 19, except for being larger than the projections 18, are otherwise similar thereto, and may be similarly formed. The projections 19, also, are

preferably positioned somewhat nearer the lower extremity of upper portion 16 of central member 15 than they are to the projections 18.

Central member 15 further includes an operationally lower portion 21 extending downwardly from the upper portion 16 thereof and disposed at an angle with respect thereto; the angle between the front surfaces of upper portion 16 and lower portion 21 of central member 15 being on the order of about 135°. The lower corner areas 22 of lower portion 21 of central member 15 have been curved in a rearwardly direction, as clearly indicated in FIGS. 2 and 3, in order to give the rear surface thereof a somewhat conical shape substantially conforming to the shape of the external surface of rim area of the bell portion of a trombone or other like musical instrument, and this rear surface of lower portion 21 of central member 15 is covered by a sheet of felt 23 or other similar cushioning material secured thereto, as by adhesive bonding or the like, as shown in FIG. 3.

The area of the front surface of the upper portion 16 of central member 15 extending upwardly from the projections 18 may aptly be referred to as "the inner jaw of a sheet music clamp element". This sheet music element clamp element, generally designated by the reference numeral 24, also includes a preferably metallic outer jaw member, generally designated by the reference numeral 25. Jaw member 25 is planar and generally lyre-shaped; having a central portion 26 including an operationally downwardly depending digitally depressible projection 27. Jaw member 25 also includes an arm 28 extending substantially operationally vertically upwardly from each side of the central portion 26 thereof; each arm 28 having an outwardly curving upper terminus 29. Jaw member 25 is further provided with a projection 31 disposed near the lower extremity of the inner side of each of the arms 28 thereof; the projections 31 being perpendicular to the plane occupied by jaw member 25 and being spaced apart in parallel relation a distance only slightly greater than the spacing between the parallelly disposed outer faces of the projections 18 of central member 15. Alined bores are formed through each of the projections 31 of jaw member 25, and alined bores of the same diameter are also formed through the projections 18 of central member 15. The inner face of each of the projections 31 of jaw member 25 is positioned adjacent the outer face of a projection 18 of central member 15, and a conventional metallic spring pin 32 is passed through the alined bores of all of the projections 18 and 31 to pivotally interconnect the jaw member 25 and the central member 15 in spaced relation in the vicinity of the point of interconnection thereof; the pin 32 being secured in this position by any desired conventional means, not shown. A first metallic helical spring 35 is disposed around pin 32 between the longitudinal midpoint thereof and one of the projections 18 of central member 15; the spring 35 having a first linear section 36 extending from the end of the helical portion thereof nearest the adjacent projection 18 of central member 15, and further having a second and somewhat longer linear section 37 extending from the other end of the helical portion thereof. The linear sections 36 and 37 of spring 35 are disposed in diverging planes not quite perpendicular to the linear axis of the helical portion thereof, and when torsional spring energy is stored within the helical portion of spring 35, the linear sections 36 and 37 thereof may lie in fairly acutely converging planes parallel to but somewhat spaced from the linear axis of the helical portion of spring 35. A second metallic helical spring 38 is also disposed around pin 32 between the longitudinal midpoint thereof and the other of the projections 18 of central member 15; the spring 38 being a mirror image of spring 35 and having linear sections 39 and 41 corresponding, respectively, to the linear sections 37 and 36 of spring 35. The outer end of the linear section 36 of spring 35 bears against the front surface of upper portion 16 of central member 15 at a point spaced operationally below the adjacent projection 18 thereof, while the outer end of the linear section 41 of spring 38 similarly bears against the front surface of upper portion 16 of central member 15 at a point spaced operationally below the adjacent other projection 18 thereof; the outer end of the linear section 37 of spring 35 and the outer end of the linear section 39 of spring 38 bearing substantially centrally against the rear surface of the central portion 26 of jaw member 25 at a point, obviously, operationally spaced below the level of the projections 31 thereof. The action of the springs 35 and 38 urges the central portion 26 of jaw member 25 away from the front surface of upper portion 16 of central member 15, thereby urging the outwardly curving upper terminus 29 of each of the arms 28 of jaw member 25 towards contact with the front surfaces of upper portion 16 of central member 15 and one of the projections 17 thereof.

The resilient material covered rear surface of the lower portion 21 of central member 15 may aptly be referred to as "the inner jaw of a musical instrument clamp element." This musical instrument clamp element, generally designated by the reference numeral 42, also includes a preferably metallic outer jaw member formed of sheet material, generally designated by the reference numeral 43. Jaw member 43 includes a generally rectangular and planar operationally upper portion 44, which may be somewhat shorter in length than the upper portion 16 of central member 15, and which is not quite as wide as the upper portion 16 of central member 15. The jaw member 43 is provided with a projection 45 extending perpendicularly forwardly from each side of the front surface of upper portion 44 thereof near the lower extremity thereof; each of the projections 45 being essentially similar to and formed in substantially the same manner as the projections 19 of central member 15. The vertical midpoint of each of the parallelly disposed projections 45 is located at about the same distance from the lower extremity of upper portion 44 of jaw member 43 that the vertical midpoint of each of the projections 19 of upper portion 16 of central member 15 is spaced from the lower extremity of upper portion 16 of central member 15.

Jaw member 43 of musical instrument clamp element 42 further includes an operationally lower portion 46 extending downwardly from the upper portion 44 thereof and disposed at an angle with respect thereto; the angle between the front surfaces of upper portion 44 and lower portion 46 of jaw member 43 being somewhat less than the angle between the front surfaces of upper portion 16 and lower portion 21 of central member 15, as indicated in FIG. 3 of the drawing. The width of lower portion 46 of jaw member 43 along the upper extremity thereof is the same as the width of upper portion 44 of jaw member 43, and the width of lower portion 46 of jaw member 43 along the lower extremity thereof may be the same as the width of lower portion 21 of central member 15; the sides of lower portion 46 of jaw member 43 symmetrically smoothly tapering outwardly from the upper towards the lower extremity thereof. The front surface of lower portion 46 of jaw member 43 is shaped to conform substantially to the shape of the rear surface of the lower portion 21 of central member 15, and this front surface of lower portion 46 to jaw member 43 is covered by a sheet of felt 47 or other similar cushioning material suitably thereto similar to the material 23 covering the rear surface of the lower portion 21 of central member 15. The length of lower portion 46 of jaw member 43 is such that, when it is in close proximity to the lower portion 21 of central member 15, as shown in FIG. 3, the lower extremities of lower portion 46 of jaw member 43 and lower portion 21 of central member 15 are substantially in congruity.

Alined bores are formed through each of the projections 19 of upper portion 16 of central member 15, and alined bores of the same diameter are also formed through each of the projections 45 of upper portion 44 of jaw member 43. The inner face of each of the projections 19 of upper portion 16 of central member 15 is positioned adjacent the outer face of a projection 45 of upper portion 44 of jaw member 43, and a conventional metallic spring pin 48 is passed through the alined bores of all of the projections 19 and 45 to pivotally interconnect the jaw member 43 and the central member 15 in spaced relation

in the vicinity of the point of interconnection thereof; the pin 48 being secured in this position in any conventional manner deemed desirable. A metallic helical spring 49 is disposed around pin 48 between the parallelly spaced projections 45 of upper portion 44 of jaw member 43; the spring 49 having a linear section 51 extending from each of the ends of the helical portion thereof. The linear sections 51 of the spring 49 are disposed in slightly diverging planes not quite perpendicular to the linear axis of the helical portion thereof, and when torsional spring energy is stored within the helical portion of spring 49, the linear sections 51 thereof may lie in fairly acutely converging planes parallel to but somewhat spaced from the linear axis of the helical portion of the spring 49. The spring 49 further includes a linear section 52 extending from the outer end of each of the linear sections 51 thereof; each linear section 52 of the spring 49 being disposed parallelly to the linear axis of the helical portion thereof. One of the linear sections 52 of spring 49 bears against the rear surface of upper portion 16 of central member 15 between the projections 19 thereof and the upper extremity thereof, while the other linear section 52 of spring 49 bears against the front surface of the upper portion 44 of jaw member 43 between the projections 45 thereof and the upper extremity thereof. The action of spring 49 urges the length of the front surface of the upper portion 44 of jaw member 43 extending upwardly from the projections 45 thereof away from the rear surface of the upper portion 16 of central member 15, thereby urging the curved and resilient material covered front surface of the lower portion 46 of jaw member 43 towards contact with the conformingly curved and resilient material covered rear surface of the lower portion 21 of central member 15.

When a musician who plays one of the musical instruments hereinbefore mentioned wishes to make use of the sheet music holder 14, he may, for example, merely remove the same from one of the pockets of his clothing and, manually pressing the upper portion 44 of jaw member 43 of musical instrument clamp element 42 near the upper extremity thereof towards the upper end of the central member 15, move the lower portion 46 of jaw member 43 away from the lower portion 21 of central member 15. He then places the central upper area of the rim of the bell portion of his instrument between the resilient material covered surfaces of lower portion 46 of jaw member 43 and lower portion 21 of central member 15, and permits these resilient material covered surfaces to move towards each other to clamp the bell portion of the instrument therebetween; the resilient covering on these surfaces preventing metal to metal contact between the instrument and the sheet music holder 14 for the attainment of obvious advantages. The musician may then press the digitally depressible projection 27 of jaw member 25 of sheet music clamp element 24 towards the front surface of the upper portion 16 of central member 15 to move the upper terminus 29 of each of the arms 28 of jaw member 25 away from the front surface of central member 15. Sheet music may then be inserted between the length of the upper portion 16 of the front surface of central member 15 extending upwardly from the projections 18 thereof and the corresponding lengths of the arms 28 of jaw member 25. The musician then permits the upper terminus 29 of each of the arms 28 of jaw member 25 to move towards the front surfaces of upper portion 16 of central member 15 and the projections 17 thereof to clamp the sheet music securely therebetween. The provision of the projections 17 of the upper portion 16 of central member 15, taken with the shape of the upper terminus 29 of each of the arms 28 of jaw member 25, effectively enhances the positive clamping of sheet music therebetween, while the particular outline of the jaw member 25 of sheet music clamp element 24 serves to obscure as little as possible the sheet music placed therebehind. When the use of the sheet much music holder 14 is no longer desired, the musician may perform the procedure outlined hereinbefore in reverse order and return the same to his pocket.

Obviously, many modifications and variations of the present invention are possible in the light of the foregoing teachings. It is therefore to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

I claim:

1. A compact sheet music holder readily attachable to and detachable from the bell portion of a musical instrument such as a trombone or the like, comprising:

a musical instrument clamp element having a first jaw member, a second jaw member pivotally interconnected with said first jaw member, and resilient means normally urging said first jaw member of said musical instrument clamp element and a first portion of said second jaw member of said musical instrument clamp element together; said first jaw member of said musical instrument clamp element being positionable adjacent the exterior surface of a rim area of said bell portion of said musical instrument, said first portion of said second jaw member of said musical instrument clamp element being positionable adjacent the interior surface of said rim area of said bell portion of said musical instrument and cooperating with said first jaw member of said musical instrument clamp element for clamping said rim area of said bell portion of said musical instrument therebetween; said second jaw member of said musical instrument clamp element further including a second portion movable against the action of said resilient means of said musical instrument clamp element to move said first portion thereof away from said first jaw member of said musical instrument clamp element; and

a sheet music clamp element having a first jaw member interconnected with said first jaw member of said musical instrument clamp element, said first jaw member of said sheet music clamp element having a front surface substantially facing a musician engaged in playing said musical instrument when said sheet music holder is clamped by means of said musical instrument clamp element to said bell portion of said musical instrument, said sheet music clamp element further having a second jaw member pivotally interconnected with said first jaw member thereof in somewhat spaced relation from said front surface of said first jaw member thereof, said sheet music clamp element also having resilient means normally urging at least one arm portion of said second jaw member thereof and said front surface of said first jaw member thereof together; said front surface of said first jaw member of said sheet music clamp element being positionable adjacent the rear surface of an area of sheet music carryable by said sheet music holder situated along the lower edge of said sheet music, said arm portion of said second jaw member of said sheet music clamp element being positionable adjacent the front surface of said area of said sheet music carryable by said sheet music holder and cooperating with said front surface of said first jaw member of said sheet music clamp element for clamping said sheet music therebetween; said second jaw member of said sheet music clamp element further including a digitally depressible projection moveable against the action of said resilient means of said sheet music clamp element to move said arm portion thereof away from said front surface of said first jaw member of said sheet music clamp element.

2. The sheet music holder according to claim 1, wherein the surface of said first jaw member of said musical instrument clamp element positionable adjacent said bell portion of said musical instrument is shaped to substantially conform thereto and is covered by a sheet of resilient cushioning material, and wherein the surface of said first portion of said second jaw member of said musical instrument clamp element positionable adjacent said bell portion of said musical instrument is shaped to substantially conform thereto and is covered by a sheet of resilient cushioning material.

3. The sheet music holder according to claim 1, wherein said first jaw member of said musical instrument clamp element is constituted by a lower portion of an elongated operationally substantially vertically disposed member formed of sheet material, the rear surface of said lower portion of said elongated member being the surface of said first jaw member of said musical instrument clamp element positionable adjacent said bell portion of said musical instrument, and wherein said front surface of said first jaw member of said sheet music clamp element is essentially constituted by an upper length of the front surface of an upper portion of said elongated member.

4. The sheet music holder according to claim 3, wherein said lower portion of said elongated member is angularly disposed with respect to said upper portion thereof, the angle between the front surfaces of said lower and upper portions of said elongated member being less than 180°; and wherein said first portion of said second jaw member of said musical instrument clamp element is similarly angularly disposed with respect to said second portion thereof at an angle slighter than the angle between the front surfaces of said lower and upper portions of said elongated member.

5. The sheet music holder according to claim 4, wherein the surface of said first jaw member of said musical instrument clamp element positionable adjacent said bell portion of said musical instrument is shaped to substantially conform thereto and is covered by a sheet of resilient cushioning material, and wherein the surface of said first portion of said second jaw member of said musical instrument clamp element positionable adjacent said bell portion of said musical instrument is shaped to substantially conform thereto and is covered by a sheet of resilient cushioning material.