

[72] Inventor **Tamotsu Osuga**
Narashino-shi, Japan
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 [73] Assignee **Pearl Muscial Instrument Manufacturing**
Co. Ltd.
Tokyo, Japan, a corporation of Japan
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 [33] **Japan**
 [31] **43/25,420 and 43/31,698**

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Primary Examiner—Richard B. Wilkinson
Assistant Examiner—John F. Gonzales
Attorney—George B. Oujevolk

[54] **TOM-TOM HOLDER**
2 Claims, 3 Drawing Figs.

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248/181
 [51] Int. Cl. **G10d 13/02,**
F16m 11/14
 [50] Field of Search. **84/411,**
421; 248/181; 287/12, 21; 285/261, 51, 135

ABSTRACT: The present invention provides a tom-tom holder comprising a lever whose base end is fitted to a bass drum and at whose uppermost end is formed a spherical member, another lever whose base end is attached to a tom-tom and at whose other end is provided a socket having its inner surface extending over the upper and lower half peripheries of the spherical member. and a tightening screw penetrating the socket thereby to press it to the spherical member, thus enabling the position of the tom-tom to be freely varied relative to the bass drum and the attachment of the tom-tom thereto to be substantially saved from being loosened.

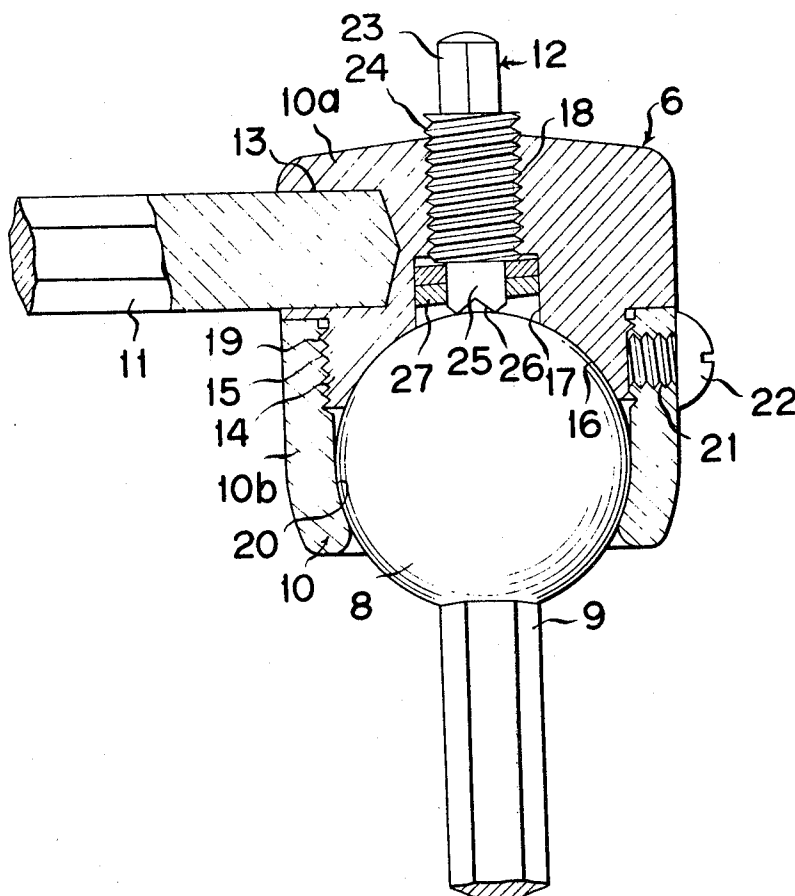


FIG. 1

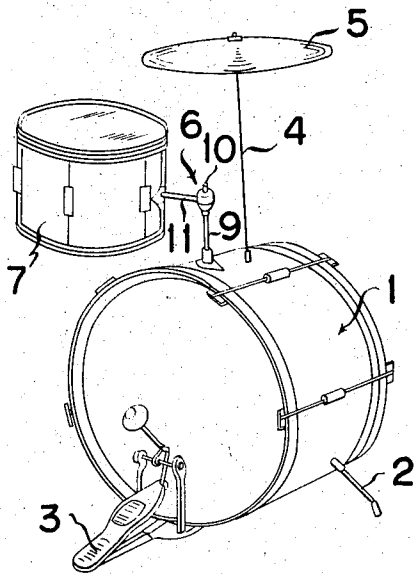


FIG. 3

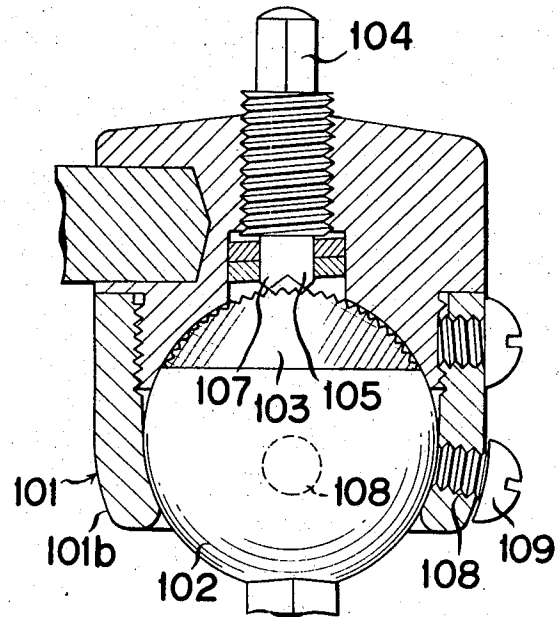
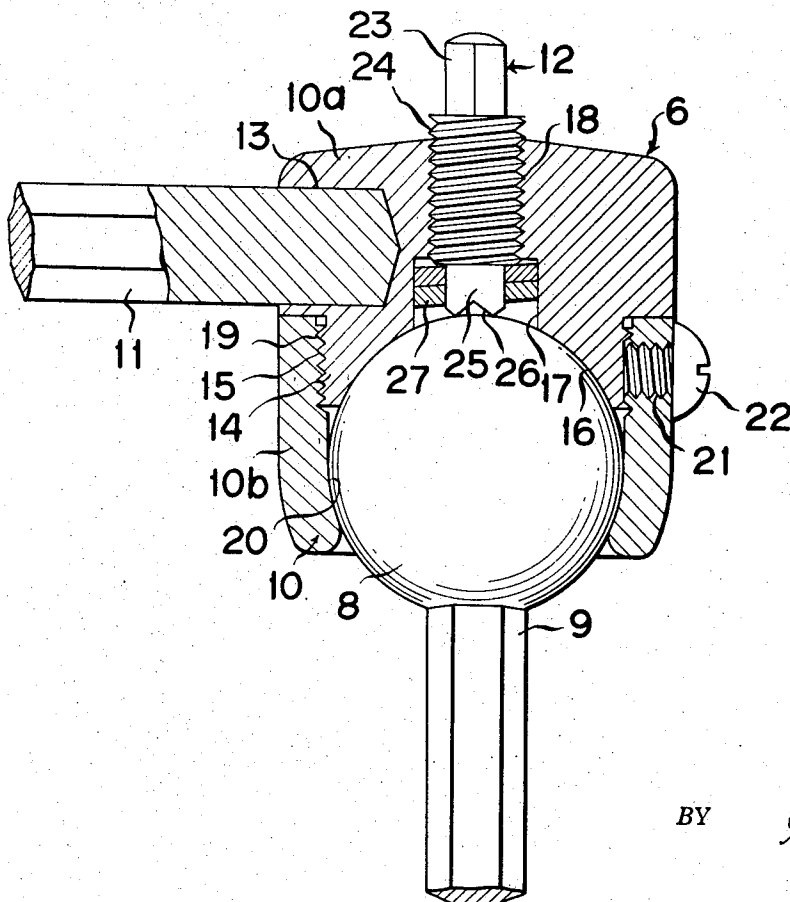


FIG. 2



Tomolzu O SUGA

INVENTOR.

 $\mathcal{BY}$

George B. Quipole
Attorney

TOM-TOM HOLDER

BACKGROUND OF THE INVENTION

The present invention relates to improvements in a tom-tom holder for fitting a tom-tom to a bass drum.

A tom-tom holder of this type is generally constructed by fitting a spring plate bent in the U-shape to the uppermost end of a lever attached to a bass drum, inserting another lever fixed to a tom-tom into said U-shaped bend, clamping the U-shaped portion by bolt and nut to contract its inner width thereby tightly to hold the tom-tom lever. However, a tom-tom holder of such arrangement was not very satisfactory due to the fact that failure to assure full clamping caused the force with which the tom-tom lever was pressed to the spring plate to be gradually reduced by vibrations arising from the playing of a tom-tom and sometimes the position of the tom-tom previously set at a prescribed angle to be disposed during performance. Furthermore, such arrangement of a tom-tom holder had the drawback that the tom-tom was appreciably obstructed in freely changing its position in a horizontal direction relative to the bass drum.

SUMMARY OF THE INVENTION

An object of the present invention is to provide a tom-tom holder fully capable of preventing the fitting of a tom-tom from being loosened due to its vibrations.

Another object of the invention is to provide a tom-tom holder allowing the tom-tom freely to change its position in a horizontal direction.

BRIEF EXPLANATION OF THE DRAWING

There will now be described the present invention by reference to the appended drawing.

FIG. 1 is a perspective of a drum set involving a tom-tom holder of the present invention wherein the bass drum is provided with a tom-tom, cymbal and drum pedal;

FIG. 2 is a lateral view of the main parts of said tom-tom holder, with a part broken away; and

FIG. 3 is a lateral view of the main parts of another embodiment of said tom-tom holder, with a part broken away.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIG. 1, numeral 1 represents a bass drum. Its end faces are disposed perpendicular to the plane, in which it is set, by being supported with legs 2. The bass drum has a pedal 3 fitted opposite to one of its end faces. Above the body of the bass drum is positioned a cymbal 5 by the aid of a cymbal holder 4 fixed to the top surface of the drum body. Disposed slightly apart from the cymbal holder 4 is a tom-tom holder assembly designated by the general numeral 6. To the uppermost end of the tom-tom holder is fitted a tom-tom 7.

There will now be detailed the tom-tom holder by reference to FIGS. 2 and 3. This tom-tom holder assembly 6 comprises a lever 9 whose base end is fitted to the bass drum 1 and on whose uppermost end is mounted a spherical member 8, and a screwed member 12 which is made of harder tempered steel than the aforementioned material of the spherical member 8 and penetrates the socket 10 so as to tighten the spherical member 8 to the socket. The socket 10 consists of an upper cup-shaped member 10a contacting the upper half peripheral surface of the spherical member 8 and a lower ring-shaped member 10b contacting the lower half peripheral surface of the spherical member 8. To describe further, the upper cup-shaped member 10a of the socket 10 assumes a round columnar form, and at a part of the outside of said upper member 10a is formed a cavity 13 into which is inserted the lever 11 with pressure. On the underside of the upper member 10a is provided a protuberance 14, the shoulder of which, as viewed from the bottom of FIG. 2, assumes a stepped form. On the outer circumferential surface of the protuberance 14 is cut out a male screw 15 and the bottom face of the protuberance 14 has a recess 16 so as to match the corresponding sectional por-

tion of the spherical member 8. In the central part of the recess 16 is further formed a cavity 17 and there is provided a female screw 18 in a manner to penetrate the cavity 17 and the central part of the upper end face of the upper member 10a of the socket 10. The lower member 10b of the socket 10 assumes an approximately cylindrical form. The inner circumferential surface of the upper opening of said lower member 10b of the socket 10 is provided with a female screw 19 to register with the male screw 15 of the upper member 10a of the socket 10. The inner surface of the lower opening 20 of the lower member 10b of the socket 10 is so curved as substantially to fit in with the peripheral configuration of the lower half of the spherical member 8. There is further provided a female screw 21 in a manner to penetrate the wall on whose inner surface is formed the female screw 19 of the lower member 10b of the socket 10. For engagement with the female screw 21 is provided a male screw 22 so as to assure the mutual tight attachment of both upper and lower members 10a and 10b of the socket 10 by preventing the loosening of engagement between the male screw 15 of the upper member 10a and the female screw 19 of the lower member 10b. The tightening screw 12 consists of a square columnar head 23, screwed section 24 and end portion 25. In the central part of the bottom face of the end portion 25 is formed a depression 26. The tightening screw 12 is engaged with the female screw 18 of the upper member 10a of the socket 10. The bottom face of the end portion 25 of the tightening screw 12 contacts the outer circumference of the spherical member 8. Between the outer circumference and the cavity 17 of the upper member 10a of the socket 10 are disposed spring washers 27 to prevent the loosening of the tightening screw 12.

Another embodiment of the present invention denoted by the general numeral 100 as shown in FIG. 3 is intended to obtain a much greater friction between the socket 101 and spherical member 102. The numerals of the same parts as those of FIG. 2 are omitted. In the case of FIG. 3, the upper peripheral portion of the spherical member 102 is provided with a large number of depression 103. On the bottom face of the end portion 105 of the tightening screw 104 is formed a V-shaped groove 106. The claws 107 formed on both sides of the groove 106 fit in with the depressions 103 in the upper peripheral portion of the spherical member 102. Further, on the inner circumferential surface of the lower opening of the lower member 101b of the socket 101 are formed a plurality of female screws 108. The exposed heads of male screws 109 are tightly fitted to the outer surface of the spherical member 102 by engagement with the female screws 108 thereby to increase the friction between the socket 101 and spherical member 102.

With the aforementioned embodiment, it is permissible to prepare the tightening screw 104 from soft steel and the spherical member 102 from harder steel than that of said screw 104. In this case, it is advisable to render the bottom face of the tightening screw 104 into a flat plane in order to assure a firmer fitting between the screw and spherical member. The reason is that the undulating portion formed by the aforementioned depressions 103 on the periphery of the spherical member 102 which is made of harder steel than the screw bites into the bottom face of the screw, thereby to afford a more secure mutual attachment.

There will now be described by reference to FIG. 1 the player's operation of changing the position of the tom-tom 7 relative to the bass drum 1 in accordance with his desire.

When, under the condition shown in FIG. 2, the tightening screw 12 is loosened by a key (not shown), the socket 10 and the spherical member 8 are released from a tightening force, thus enabling the socket 10 to be freely rotated on the spherical member 8 to any desired position. When the position of the tom-tom 7 relative to the bass drum 1, namely, that of the socket 10 relative to the spherical member 8 is fixed and thereafter the tightening screw 12 is again screwed in, then there is securely held the spherical member 8 between the bottom face of the end portion 25 of the screw 12 and the inner

curved surface 20 of the lower member 10b of the socket 10, namely, the socket 10 is firmly supported on the spherical member 8. In this case, the tightening screw 12 has greater hardness than the spherical member 8, so that the lowermost end of the tightening screw 12 bites into the spherical member 8, thus preventing the attachment of the socket 10 to the spherical member 8 from being easily loosened by the vibrations of the tom-tom.

Referring now to FIG. 3, the claws 107 formed on the bottom face of the lower portion of the tightening screw 104 fit in with the depressions 103 provided on the periphery of the spherical member 102. Or in another aspect of the invention, the undulating portion formed by the depressions 103 on the periphery of the spherical member 102 bites into the bottom face of the tightening screw 104. Thus in either case, the socket 101 is firmly held on the spherical member 102. This holding force is further increased by tightening a plurality of male screws 109 disposed in the lower member 101b of the socket 101.

I claim:

1. A tom-tom holder comprising a first lever with a free end for supporting a tom-tom, a socket attached to said free end of said lever and consisting of an upper cup-shaped member and a lower ring-shaped member detachably screwed to said cup-shaped member so as to form a substantially spherical hollow portion, a spherical member swivellingly disposed in said hollow portion of said socket, a screw member with an inner claw adjustably screwed to said cup-shaped member and having said claw adapted to bite into the surface of said spherical member, and second lever having one end portion attached to said spherical member through said ring-shaped member and the other end portion being adapted to be fitted to a bass drum.
2. A tom-tom holder claimed in claim 1, in which the surface of said spherical member opposite to the claw is provided with a large number of depressions engageable with said claws.

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