United States Patent

[11] 3,576,149

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[21] Appl. No. **813,188**
[22] Filed **Apr. 3, 1969**
[45] Patented **Apr. 27, 1971**
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[54] **DRUM HOLDER**
9 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **84/421**
[51] **Int. Cl.** **G10d 13/02**
[50] **Field of Search** 84/421, 411, 422, 453; 248/443

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ABSTRACT: A holder for mounting a small musical instrument such as a tom-tom on a larger musical instrument such as a bass drum. The holder is adjustable to permit selective disposition of the tom-tom in any one of a plurality of different positions and is arranged to permit facilitated mounting and unmounting in such a manner as to assure that the tom-tom will be automatically repositioned in the same selected disposition during each successive mounting. The holder includes means for facilitated manual locking of the tom-tom in the mounted position.

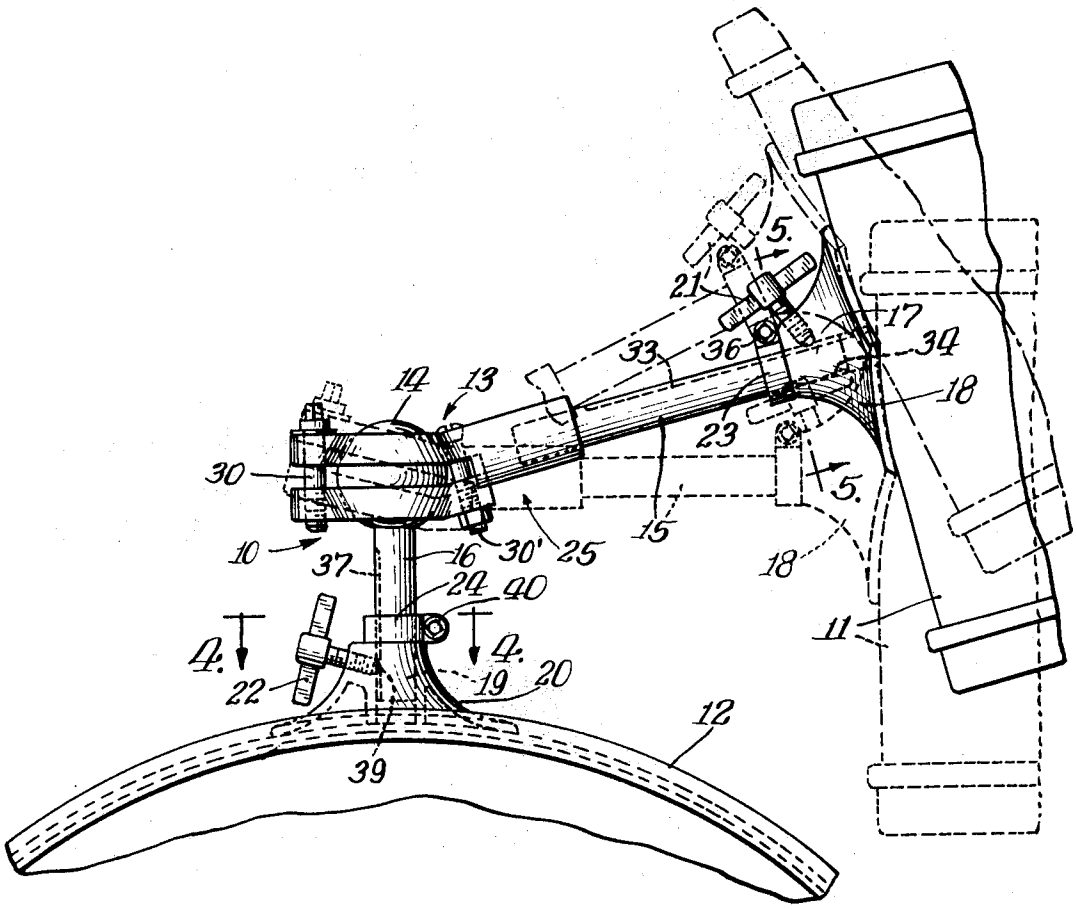


Fig. 2.

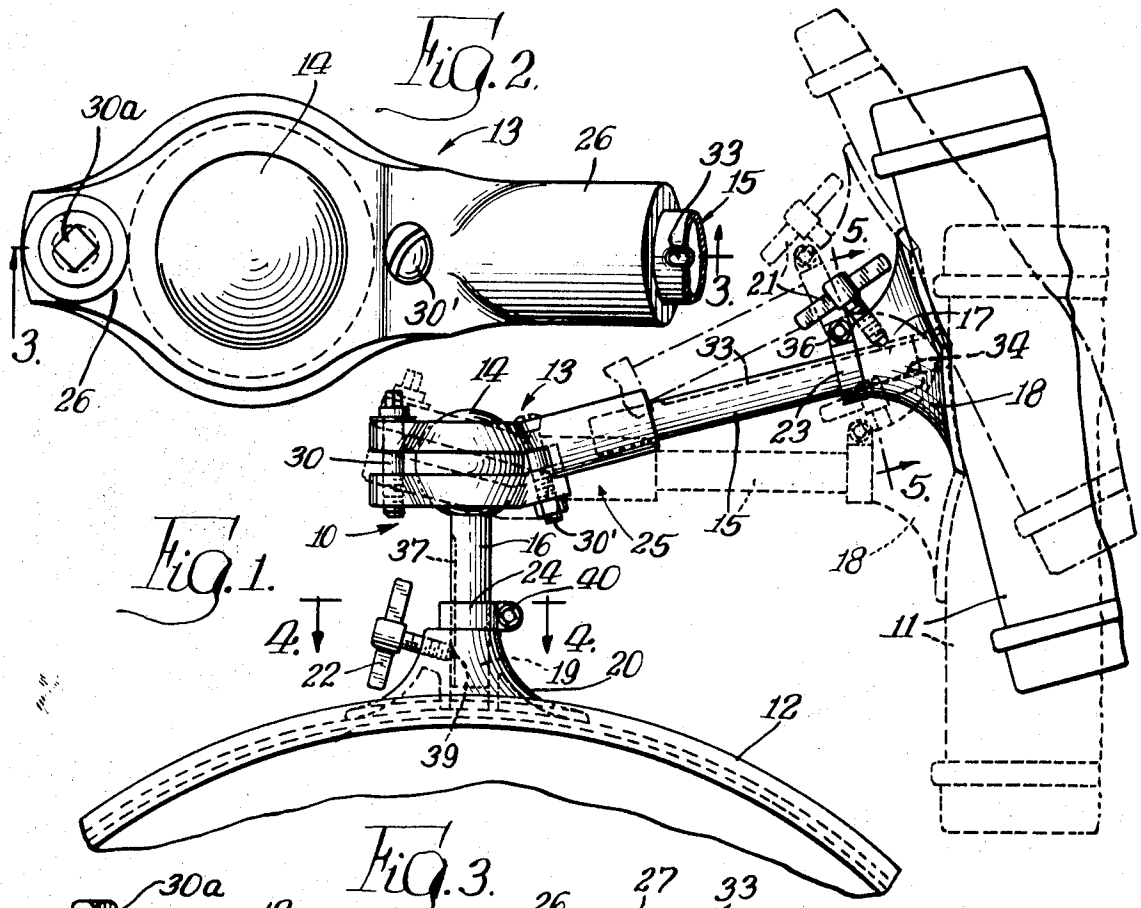


Fig. 1.

Fig. 3.

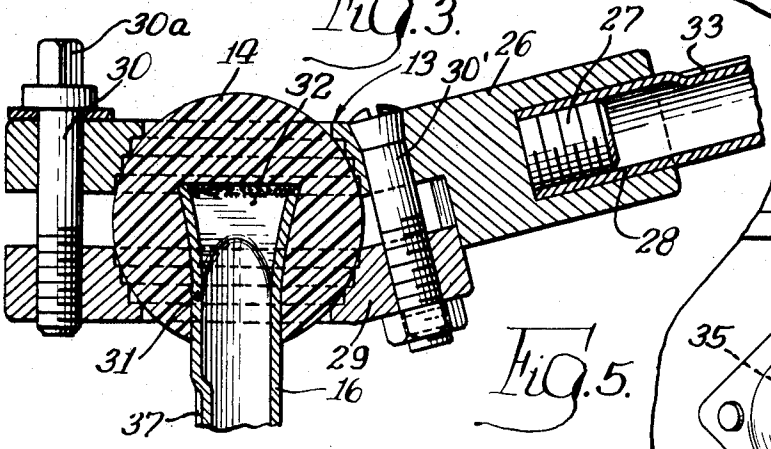


Fig. 5.

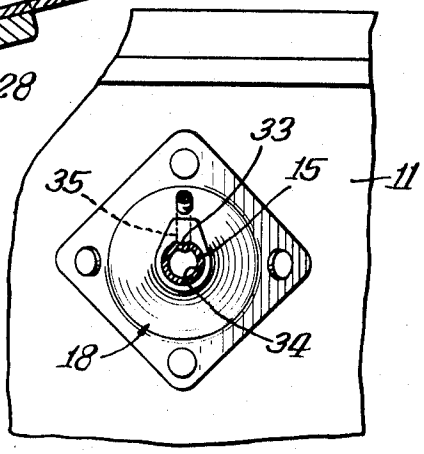
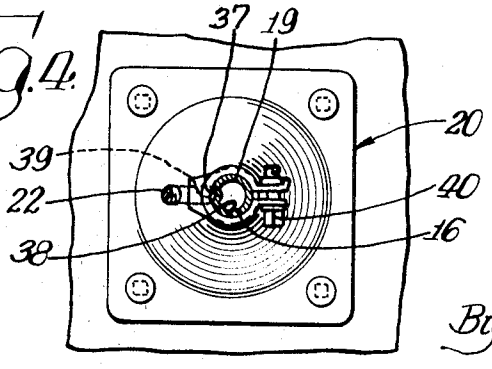


Fig. 4.



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DRUM HOLDER

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to musical instruments and in particular to apparatus for mounting a first musical instrument on a second musical instrument. More specifically, the invention relates to the mounting of a small drum such as a tom-tom on a larger drum such as a bass drum.

2. Description of the Prior Art

In the conventional tom-tom mounting means, a structure is provided for carrying the tom-tom on a portion of an associated instrument such as a bass drum requiring adjustment of the mounting means upon each assembly. In one form of mounting means, the tom-tom may be mounted each time in any one of a plurality of rotational positions requiring the user to select at the time of each mounting the desired angular relationship of the tom-tom to the bass drum.

SUMMARY OF THE INVENTION

The present invention eliminates the vexatious problem of the known mounting apparatuses resulting from the requirement of adjustment of the relative drum positions each time the drums are assembled. The present invention solves this problem in an extremely simple and economical manner while yet permitting the assembly of the drums quickly and easily.

More specifically the invention comprehends the provision of a holder for mounting a first musical instrument such as a tom-tom on a second musical instrument such as a bass drum repetitively in a selected one of a plurality of positions. The mounting apparatus permits the first instrument to be mounted on the second instrument in substantially identical positions each time the mounting is effected. Further, the present invention comprehends providing such a mounting apparatus wherein the position of the first musical instrument relative to the second may be readily changed as desired by the user while permitting subsequent remounting to automatically conform to the newly selected changed position.

More specifically, the invention comprehends the provision of apparatus for mounting a first musical instrument on a second musical instrument in any one of a plurality of positions comprising first socket means adapted to be fixedly mounted on the first musical instrument, second socket means adapted to be fixedly mounted on the second musical instrument, connector means having first insert means removably received in the first socket means, second insert means removably received in the second socket means, means adjustably locking the insert means in any one of a plurality of mutually angularly related positions, means retaining the first insert in the first socket means in only a single rotational disposition, and means retaining the second insert in the second socket means in only a single rotational disposition.

Further, more specifically, the invention comprehends the provision of such mounting apparatus including means providing facilitated manual locking and release of the assembly.

Still further, more specifically, the invention comprehends the provision of such a mounting apparatus wherein the insert means and socket means have interfitting portions of complementary asymmetrical cross sections to assure mounting of the first musical instrument in only one rotational disposition relative to the two instruments.

BRIEF DESCRIPTION OF THE DRAWING

Other features and advantages of the invention will be apparent from the following description taken in connection with the accompanying drawing wherein:

FIG. 1 is a fragmentary elevation of an apparatus embodying the invention mounting a first drum on a second drum, different dispositions of the first drum relative to the second drum being illustrated in solid, broken, and dot-dash lines, respectively;

FIG. 2 is a fragmentary top plan view of the connector means of the mounting apparatus;

FIG. 3 is a vertical section thereof taken substantially along the line 3–3 of FIG. 2;

FIG. 4 is a fragmentary transverse section taken substantially along the line 4–4 of FIG. 1; and

FIG. 5 is a fragmentary transverse section taken substantially along the line 5–5 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In the exemplary embodiment of the invention as disclosed in the drawing, a mounting apparatus generally designated **10** is shown adjustably mounting a first musical instrument, such as a tom-tom, **11** on a second musical instrument, such as a bass drum, **12** by a suitable adjustable securing means, herein illustratively comprising a clamp portion generally designated **13**, and a ball portion **14** disposing a first insert **15** in a desired angular relationship to a second insert **16**. Insert **15** includes an end portion **17** received in a socket **18** fixed to the tom-tom **11** and insert **16** includes an end portion **19** received in a socket **20** fixed to the bass drum **12**. The insert end portion **17** is locked in the socket **18** by a suitable thumbscrew **21** and insert end portion **19** is locked in socket **20** by a suitable thumbscrew **22**. Adjustment of the insertion of the insert end portion **17** into the socket **18** is effected by the provision of a collar **23** on the insert **15** which abuts the socket **18** in the assembled disposition of the tom-tom relative to the bass drum. Adjustment of the insertion of the end portion **19** of the insert **16** into the socket **20** is effected by the provision of a collar **24** on the insert **16** which abuts the socket **20** in the assembled disposition of the mounting apparatus **10** relative to the bass drum **12**. Thus, clamp **13** and inserts **15** and **16** effectively define a connector generally designated **25** interfitting with the sockets **18** and **20** to provide the desirable facilitated removable mounting of the tom-tom **11** on the bass drum **12**.

More specifically, the mounting apparatus **10** is arranged to permit the user to select a desired disposition of the tom-tom relative to the bass drum, secure the mounting apparatus in this disposition and then successively disassemble and reassemble the apparatus in exactly the same disposition for facilitated successive use of the drums.

More specifically, the clamp **13** includes a first clamp half **26** secured to end **28** of the insert **15** opposite end **17**. Insert end **28** may be knurled and clamp half **26** may be cast about the end **28** to fixedly secure the insert to the clamp half. A plug **27** may be threaded into the end **28** to prevent casting metal flow outwardly therethrough during casting of the clamp half thereonto. Clamp **13** further includes a second clamp half **29** which cooperates with the clamp half **26** by means of suitable screws **30** and **30'** to clamp onto the ball **14** and thereby secure the clamp half **26** in the desired position on the ball **14**. The mounting of the clamp **13** on the ball **14** is fixed by the forceful tightening of the screws **30** and **30'**. Screw **30** may have a squared head **30*a*** for manipulation by means of a conventional drum key. As shown in FIG. **3**, insert **16** includes an end portion **31** opposite end portion **17** which is flattened and cast in the ball **14** to be fixedly retained therein. The end **32** of the flattened portion may be sealed as by welding to preclude flow of plastic outwardly therethrough as during molding of the ball **14** thereonto.

As shown in FIG. **5**, insert **15** has an irregular external configuration defined by an indentation, or groove, **33** extending longitudinally the length of the insert from outwardly of end **28**. As shown in FIG. **5**, the insert may comprise a tubular member which is otherwise circular in external cross section to have a close fit in the complementary irregularly circular cross section recess **34** of socket **18** for retaining the insert against rotation therein. The thumbscrew **21** includes an inner screw portion **35** which extends through the socket **18** into the recess **34** and may extend into the grooved indentation **33** to retain the insert in the socket means against longitudinal movement while yet permitting the insert to be longitudinally inserted into the recess **34** to the desired disposition. As discussed above, the collar **23** is mounted on the insert **15** to

limit this insertion. Collar **23** may comprise a conventional split clampntype collar secured in the desired position on the insert **15** by conventional threaded means **36** provided with a suitable squared head for manipulation with a conventional drum key.

As shown in FIG. **4**, insert **16** is similar to insert **15** in having an irregular external configuration defined by a longitudinal grooved indentation **37** extending from outwardly of end portion **31**. End **19** of insert **16** is received in the corresponding irregular recess **38** of socket **20** to be retained thereby in a single rotational disposition and to be engaged by the inner end **39** of the thumbscrew **22** which locks insert **16** in socket **20** against longitudinal movement. Collar **24** is similar to collar **23** and is locked in the desired position on insert **16** by a similar square-headed threaded means **40**.

Thus, to adjust the mounting of the tom-tom **11** on the bass drum **12**, the user firstly installs the inserts **15** and **16** in their respective sockets **18** and **20** with the clamp **13** loose. With the tom-tom in the desired position, the user then tightens screws **30** and **30'** to secure the clamp **13** and tightens thumbscrews **21** and **22** to secure the inserts in the respective sockets. The collars **23** and **24** may be secured in the desired disposition by tightening screws **36** and **40** to complete the securing of the mounting apparatus. Alternatively, thumbscrews **21** and **22** may be tightened prior to the securing of the clamp **13**.

As shown in FIG. **1**, the clamp **13** may be secured on the ball **14** in any one of a number of dispositions over a wide range such as the range illustrated by the broken and dot-dash line showing of the assembly.

When the user wishes to disassemble the drums, he need merely loosen the thumbscrew **21** permitting the tom-tom **11** to be removed from the insert **15**. If desired, he may further remove the connector **25** from the bass drum **12** by loosening the thumbscrew **22** to permit withdrawal of the insert **16** from the socket **20**. To reassemble the drums in exactly the same position, the user merely reinstalls the tom-tom on the insert **15** by causing the insert end **17** to pass into the recess **34** of the socket **18** with the angular disposition of the socket being automatically restored to the original angular disposition by the interlocked association of the insert and recess configurations. The collar **23** automatically disposes the socket **18** in the original disposition axially of the insert **15**. Tightening of the thumbscrew **21** then automatically resecures the tom-tom in this disposition. Where the connector **25** has been removed from the bass drum **12**, reinstallation thereof on the bass drum is similarly effected by inserting the insert end **19** into the socket **20** and the thumbscrew **22** tightened to retain the insert in the socket, with the irregular insert and socket configurations providing a single rotational disposition and with collar **24** automatically disposing the insert in the same longitudinal disposition relative to the socket.

Thus, mounting apparatus **10** is extremely simple and economical of construction while yet affording a positive repetitive desired adjusted mounting of the tom-tom **11** on the bass drum **12**. The mounting apparatus **10** may be readily adjusted and readjusted, if desired, while yet positively maintaining the desired adjusted relationship of the tom-tom relative to the bass drum, as desired.

The foregoing disclosure of specific embodiments is illustrative of the broad inventive concepts comprehended by the invention.

I claim:

1. Apparatus for mounting a first musical instrument on a second musical instrument in any one of a plurality of positions comprising:

first means defining a first socket and being adapted to be fixedly mounted on said first musical instrument, said socket having a noncircular cross section;

second means defining a second socket and being adapted to be fixedly mounted on said second musical instrument, said second socket having a noncircular cross section; and

adjustable connector means having first insert means provided with an end portion having a corresponding noncircular cross section removably received in said first means whereby said first insert means is insertable in said first socket in only a single rotational disposition, second insert means provided with an end portion having a corresponding noncircular cross section removably received in said second socket means whereby said second insert means is insertable in said second socket means in only a single rotational disposition, and means removably adjustably locking said insert means in said sockets against longitudinal movement

2. The apparatus of claim **1** wherein said connector means comprises a ball joint.

3. The apparatus of claim **1** wherein said retaining means comprises interfitting portions of said insert means and said sockets, one of said portions having a concave cross section and the other of said portions having a convex cross section.

4. The apparatus of claim **1** wherein said locking means comprises screw means extending through an inwardly projecting convex portion of each said socket.

5. The apparatus of claim **1** wherein said connector means includes a molded ball having one of said insert means molded thereinto, and a molded clamp having the other of said insert means molded thereinto.

6. The apparatus of claim **5** wherein said insert means have a circular cross section exteriorly said clamp half and ball into which they are molded.

7. The apparatus of claim **5** wherein said insert means are provided with means for closing the end thereof to preclude flow of molding material therethrough.

8. The apparatus of claim **1** further including means adjustably secured to said insert means for limiting the amount of insertion of said insert means into said socket means.

9. The apparatus of claim **1** wherein said connector means includes a ball and clamp portion and each insert means includes a concave portion spaced from said ball and clamp portion, said locking means comprising adjustable means carried by the socket means and engaging the insert means in said concave portion.