United States Patent

Phillips et al.

[15] **3,674,911**

[45] **July 4, 1972**

[54] DRUM BODY HAVING INTEGRAL MOUNTING LUGS FOR DRUMHEAD TENSIONING APPARATUS

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[22] Filed: **Dec. 8, 1970**

[21] Appl. No.: **96,154**

[52] **U.S. Cl.** ..... **84/411,** 84/452 P

[51] **Int. Cl.** **G10d 13/02**

[58] **Field of Search** ..... 84/411, 419, 420, 452 P

[56] **References Cited**

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2,172,578	9/1939	Gladstone	84/411
2,834,244	5/1958	Willits	84/411
3,139,783	7/1964	Grant et al.	84/411
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3,459,093	8/1969	Nishiura et al.	84/411
1,609,940	12/1926	Geisler	84/411
3,362,275	1/1968	Koishikawa	84/411

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[57] **ABSTRACT**

A drum body comprising a hollow shell member and a plurality of protuberant lugs forming mounting lugs for drumhead tensioning apparatus. The lugs and member are joined as an integral unit.

8 Claims, 3 Drawing Figures

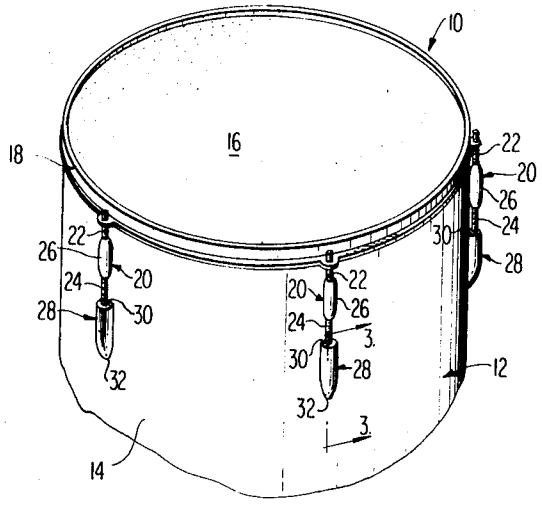


FIG1

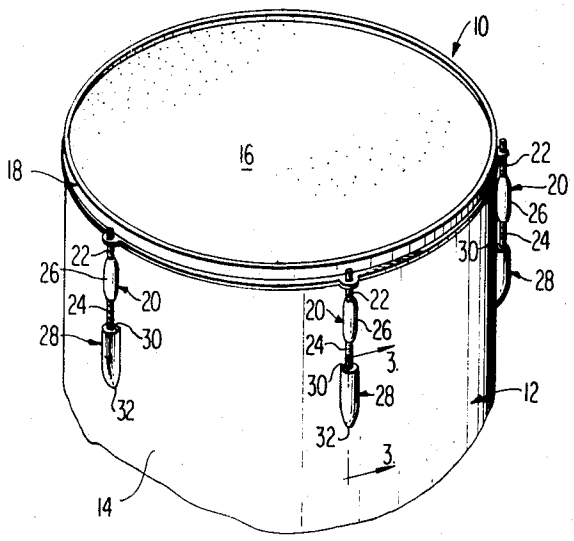


FIG2

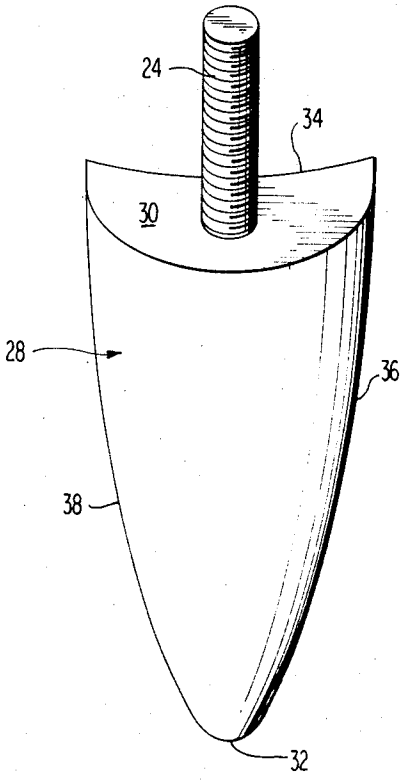
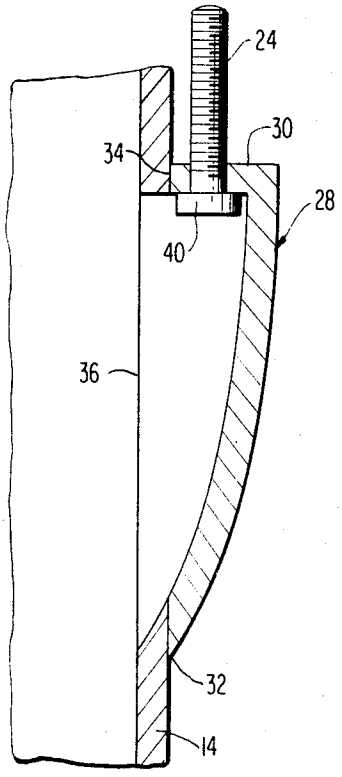


FIG3



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DRUM BODY HAVING INTEGRAL MOUNTING LUGS FOR DRUMHEAD TENSIONING APPARATUS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to drum bodies, and specifically to a drum body having integral mounting lugs for drumhead tensioning apparatus.

2. Description of the Prior Art

Mounting lugs for drumhead tensioning apparatus usually comprise individual elements which are attached to the body of the associated drum by means of bolts or like fasteners. Mounting lugs of this type are shown, for example, in Wanamaker U.S. Pat. No. 1,269,984 and White U.S. Pat. No. 3,163,076. Such lugs tend to work loose from the drum body after continued use resulting in improper drumhead tensioning. Additionally, such lugs have numerous sharp points and edges which extend outwardly from the drum body and upon which a user may injure himself or tear his clothing.

Mounting lugs having fewer sharp points and edges than the conventional lugs described above are shown in Willits U.S. Pat. No. 2,834,244 and Koishikawa U.S. Pat. No. 3,405,586. However, these latter types of lugs still tend to work loose from the associated drum body after continued use.

SUMMARY OF THE INVENTION

With the foregoing in mind, it is an object of the present invention to provide an improved drum body having integral mounting lugs for drumhead tensioning apparatus.

It is a further object of the invention to provide a drum body having mounting lugs for drumhead tensioning apparatus, which lugs will not work loose from the body after continued use.

It is also an object of the invention to provide a drum body having mounting lugs for drumhead tensioning apparatus, which lugs have smooth exterior surfaces that blend smoothly with the exterior surface of the body.

It is an additional object of the invention to provide a drum body having integral mounting lugs for drumhead tensioning apparatus, which body is durable and economical to manufacture.

These and other objects of the invention will become apparent upon a consideration of the following general and detailed descriptions thereof.

Generally described, the drum body of the invention comprises; a hollow shell member defining a chamber therein and having at least one opening therein adapted to be covered by a drumhead; and a plurality of protuberant lugs extending outwardly from the member forming mounting lugs for apparatus to tension the drumhead over said opening, each of the lugs having at least one peripheral edge contiguous with the member, and all of the peripheral lug edges contiguous with the member being integrally joined to the member so that the member and lugs form an integral unit.

Each of the lugs has a smooth exterior surface which blends smoothly with the exterior surface of the shell member. Preferably, the lugs are semi-bullet shaped each having a flat end oriented toward the opening in the shell member adapted to be covered by the drumhead and a pointed end oriented away from such opening. Also preferably, the lugs are equally spaced apart about the shell member and are equidistant from the opening therein.

The shell member and lugs preferably are made from a moldable plastic material, such as a glass-filled epoxy resin. The lugs may be formed with the shell member, as by molding, or may be formed separately and then joined to the member to form an integral unit.

A preferred embodiment of the invention will now be described in detail in conjunction with the accompanying drawings wherein like reference numerals identify like elements throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a partial perspective view of a drum which includes the drum body of the invention;

FIG. 2 is a perspective view of one of the integral mounting lugs of the drum body of the invention; and

FIG. 3 is a sectional view taken on line 3—3 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A drum **10** is shown in FIG. 1, including a drum body **12** which embodies the principles of the present invention. Body **12** includes a hollow shell member **14** which may be generally cylindrically shaped and which defines a chamber therein. Member **14** has at least one opening therein which is covered by a conventional drumhead **16**. A conventional tensioning ring **18** is disposed about drumhead **16** for tensioning the drumhead over the opening in member **14**.

To tension drumhead **16**, ring **18** must be drawn downwardly, as seen in FIG. 1, about member **14** to stretch the drumhead over the opening in the member. A plurality of drumhead tensioning apparatus, comprising turnbuckle assemblies **20**, are attached to ring **18** for drawing the ring downwardly about member **14**. Each turnbuckle assembly **20** comprises an upper threaded shaft **22** attached to ring **18**, a lower threaded shaft **24** anchored to member **14** and a turnbuckle link **26** threadably engaging shafts **22** and **24**.

Each lower shaft **24** is anchored to member **14** by a protuberant mounting lug **28** extending outwardly from the member. Lugs **28** are semi-bullet shaped each having a flat end **30** oriented toward the opening in member **14** and a pointed end **32** oriented away from such opening.

Lugs **28** include peripheral edges **34**, **36** and **38** which are contiguous with member **14** and are joined to the member along the length thereof so that the lugs and member form an integral unit. The lugs and shell member preferably are made from a moldable plastic material, such as a glass-filled epoxy resin, and may be formed as an integral unit, as by molding. Alternatively, the lugs may be formed separately and then joined to member **14** along peripheral edges **34**, **36** and **38** to form an integral unit.

Lugs **28** are hollow, and shell member **14** has a plurality of openings therein corresponding in number to the number of lugs and each corresponding in size and shape to the outline defined by peripheral edges **34**,**36** and **38**. Lugs **28** are positioned over such openings. The volume of the chamber defined by member **14** is thus enlarged by the internal volume of lugs **28**.

Lugs **28** preferably are equally spaced apart around member **14** and are equidistant from the opening therein covered by drumhead **16**. Each lower shaft **24** extends upwardly through the flat end **30** of the associated lug **28**, and has a head **40** which engages the inner surface of such end. If desired, head **40** may be secured to the inner surface of end **30** by a suitable adhesive to prevent shaft **24** from falling out of end **30** during assembly of drum **10** and periodic replacement of drumhead **16**.

As is apparent from the foregoing description, lugs **28** have smooth exterior surfaces which blend smoothly with the exterior surface of member **14**. Thus, the hazardous sharp points and edges which characterize the prior art mounting lugs are eliminated.

Also, lugs **28** are joined to shell member **14** along all of the peripheral edges of the lugs which are contiguous with the member to form an integral unit. This feature insures that the lugs will not work loose after continued use nor upon being struck inadvertently by external objects.

While the foregoing constitutes a detailed description of a preferred embodiment of the drum body of the invention, it is recognized that various modifications thereof will occur to those skilled in the art. For example, the mounting lugs may have other than a semi-bullet shape and may be adapted to anchor other than turnbuckle assembly tensioning apparatus. Therefore, the scope of the invention is to be limited solely by the scope of the appended claims.

We claim:

1. A drum body comprising:

a hollow shell member defining a chamber therein and having at least one first opening therein adapted to be covered by a drumhead; and

a plurality of hollow protuberant lugs extending outwardly from said member forming mounting lugs for apparatus to tension said drumhead over said first opening, each of said lugs having at least one peripheral edge contiguous with said member, all of said peripheral lug edges contiguous with said member being integrally joined to the member so that the member and lugs form an integral unit, and said member having a plurality of second openings therein corresponding in number to the number of said lugs, each of said second openings having substantially the same size and shape as the outline defined by said peripheral edge so that the volume of the chamber is enlarged by the internal volume of the lugs.

2. A drum body as recited in claim 1, wherein each of said lugs has a smooth exterior surface blending smoothly with the exterior surface of said member.

3. A drum body as recited in claim 2, wherein the end of each of said lugs nearest said opening is substantially flat and adapted to engage one end of said tensioning apparatus.

4. A drum body as recited in claim 3, wherein said lugs are substantially semi-bullet shaped.

5. A drum body as recited in claim 1, wherein said lugs are spaced apart about said member and are substantially equidistant from said opening.

6. A drum body as recited in claim 5, wherein said lugs are substantially equally spaced apart about said member.

7. A drum body as recited in claim 1, wherein said member and lugs are made from a moldable plastic material.

8. A drum body as recited in claim 7, wherein said member and lugs are made from a glass-filled epoxy resin.

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