

[54] DRUMHEAD

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[51] Int. Cl.G10d 13/02

[58] Field of Search.....84/269, 272, 411, 414, 418

[56] References Cited

UNITED STATES PATENTS

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[57] ABSTRACT

A drumhead comprising an upper ring member and a lower ring member which are provided on the confronting surfaces thereof with a plurality of projections and a plurality of recesses respectively at a predetermined interval for interlocking engagement with each other, and a drum sheet having a plurality of through-holes formed in the peripheral edge portion at a predetermined interval at locations corresponding to said projections respectively, said drum sheet being clamped between said upper and lower ring members with said projections extending through said through-holes and secured thereto by means of an adhesive.

4 Claims, 4 Drawing Figures

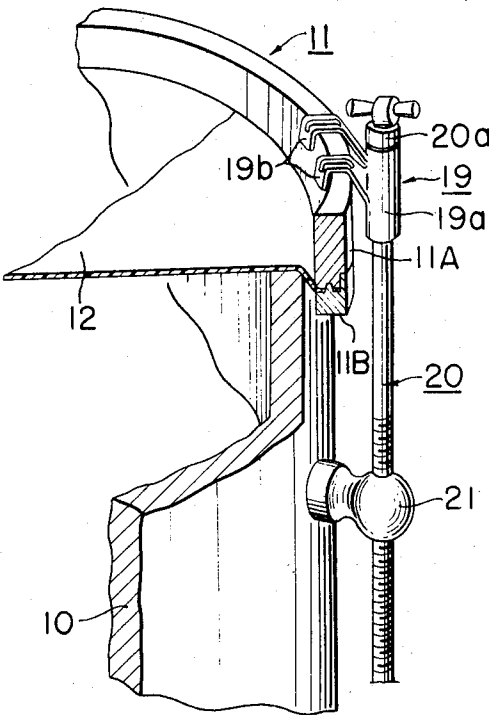


FIG. 1

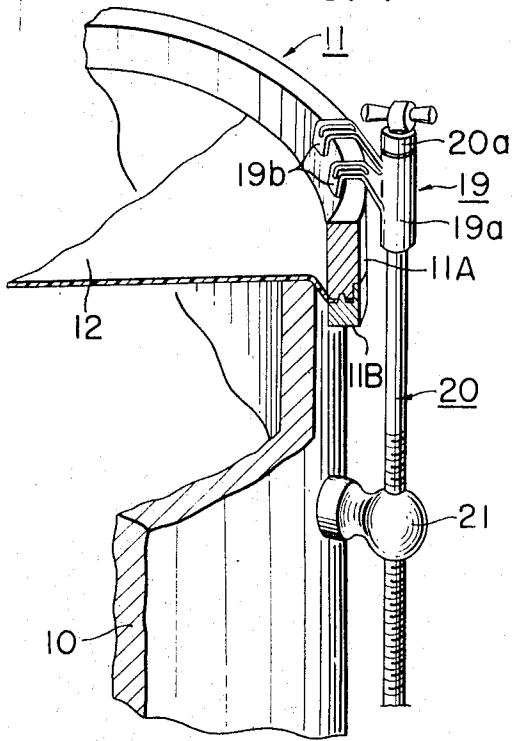


FIG. 2

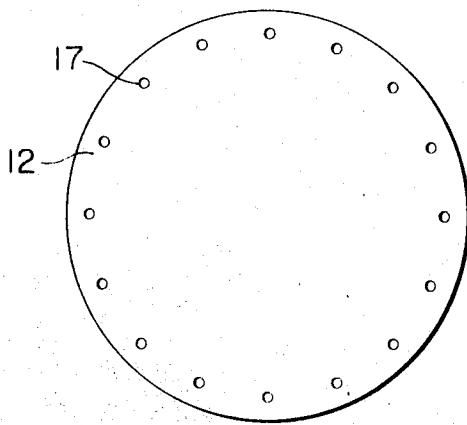


FIG. 3

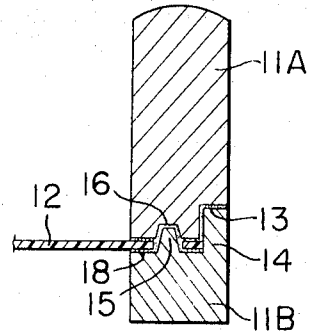
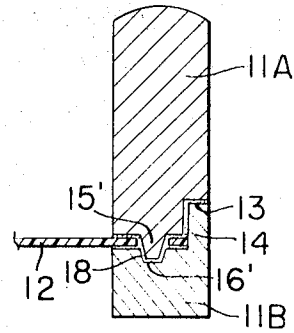


FIG. 4



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DRUMHEAD

This invention relates to a drumhead, and more particularly to improvements in the securement of a drum sheet to a drum ring.

Conventional drumheads have been made of animal skins stretched across a ring but recently synthetic resin films such, for example, as polyester films are being used as substitutes for the animal skins. However, such a synthetic resin sheet, while being suitable as a material of the drum sheet, has the disadvantages that it is extremely thin and slippery and that the securement of it to the drum ring is difficult.

An object of the present invention is to provide an improved drum sheet which can be secured to the drum ring in a simple manner and fastly.

Another object of the invention is to provide an improved drumhead in which a drum sheet is maintained in a stretched state across a drum ring with a uniform tension over the entire area thereof.

Still another object of the invention is to provide an improved drumhead which is simple in construction and adapted to mass production.

In order to attain the objects set forth above, a drumhead according to the present invention comprises an upper ring member and a lower ring member which are provided on the confronting surfaces thereof with a plurality of projections and a plurality of recesses respectively at a predetermined interval for interlocking engagement with each other, and a drum sheet having a plurality of through-holes formed in the peripheral edge portion at a predetermined interval at locations corresponding to said projections respectively, said drum sheet being clamped between said upper and lower ring members with said projections extending through said through-holes and secured thereto by means of an adhesive.

Such being the construction, in assembling the drumhead of the invention by clamping the peripheral edge portion of the drum sheet between the upper and lower ring members, the drum sheet is disposed across one of the ring members with the projections formed on the latter extending through the through-holes formed in the peripheral edge portion of the former and then said projections are engaged in the corresponding recesses formed in the other ring member respectively and at the same time, said ring members and said drum sheet are bonded together by means of an adhesive. Thus, the drum sheet is tightly clamped between and bonded to the upper and lower ring members at its peripheral edge portion and further a slippage of the drum sheet relative to the ring members and the loosening of the same can be prevented by the projections extending through the through-holes in said drum sheet. Therefore, the drum sheet is secured to the ring members in a stretched state under uniform tension over the entire surface thereof, with no fear of the drum sheet being wrinkled or the sound generated thereby varying in tone.

It is also to be noted that, since the peripheral edge portion of the drum sheet is clamped by the upper and lower ring members from both sides over the entire circumferential length thereof, said peripheral portion is reinforced and there is no possibility of rupture of the drum sheet from the peripheral edge thereof.

The novelties, advantages and other objects of the invention will become apparent from the following description on the embodiments thereof shown in the accompanying drawings, in which:

FIG. 1 is a fragmentary perspective view, partially broken away, of a preferred embodiment of the drumhead according to the present invention, mounted on the body of a drum;

FIG. 2 is a plan view of the drum sheet;

FIG. 3 is a vertical cross-sectional view showing in detail one form of securement of the drum sheet to the drum ring; and

FIG. 4 is a vertical cross-sectional view similar to FIG. 3 but showing another form of securement of the drum sheet to the drum ring.

Referring to FIG. 1, reference numeral 10 designates the body of a drum. A drum sheet 12 is stretched across the open end of the body 10 of the drum, which is secured at its peripheral edge to a drum ring 11 by a method to be described later, said drum ring being preferably made of a synthetic resin or wood.

The drum ring 11 is composed of an upper ring member 11A and a lower ring member 11B which are formed in an annular shape respectively. The upper ring member 11A and the lower ring member 11B are respectively formed at the outer peripheral edges thereof with an annular shoulder 13 and annular wall 14 for interlocking engagement with each other. Further, the lower ring member 11B is formed on its flat inner surface a plurality of frustoconical projections 15 at a predetermined interval, while the upper ring member 11A is formed in the confronting surface thereof with a plurality of recesses 16 at a predetermined interval for interlocking engagement with said projections respectively.

The drum sheet 12 is made of a synthetic resin such, for example, as a polyester film and is provided with through-holes 17 in the peripheral edge portion thereof at locations corresponding to the projections 15 of the lower ring member and the recesses 16 of the upper ring member.

In assembling the drum head, the drum sheet 12 is stretched across the lower ring member 11B, with the projections 15 of the latter extending through the corresponding through-holes 17 formed in the peripheral edge portion of the former, as shown in FIG. 3 and then the upper ring member 11A is superposed on the lower ring member 11B in such a manner that the projections 15 and the annular wall 14 of the latter are received in the corresponding recesses 16 and the annular shoulder 13 of the former in interlocking engagement, and bonded thereto by means of an adhesive 18. Thus, the drum sheet 12 is clamped at its peripheral edge between the upper and lower ring members 11A and 11B.

The drumhead thus assembled is mounted on the body 10 of the drum in the following manner: Namely, the drumhead is disposed at the open end of the drum body 10 in such a manner that the drum sheet 12 covers the open end of said drum body, as shown in FIG. 1. Then, hooks 19b, extending from a tubular portion 19a of a tightening member 19 are hooked over the drum ring 11 located outwardly of the drum body 10. Thereafter, a tightening screw 20 which loosely extends through the tubular portion 19a of the tightening member 19 and has the lower end thereof screw-threaded into an internally threaded portion of a fixed member (not shown) provided at the lower edge of the drum body 10, is rotated, whereby said tubular portion 19a of the tightening member 19 is depressed by an enlarged portion 20a at the upper end of said tightening screws 20 and the drum ring 11 is pushed downward by the hooks 19b of said tightening member 19, together with the drum sheet 12. Thus, the drum sheet 12 is stretched tautly across the open end of the drum body 10 in a manner to close said open end.

In FIG. 1, reference numeral 21 designates a guide member fixedly mounted on the drum body 10, through which the tightening screw 20 loosely extends.

In the embodiment shown in FIG. 4, the upper ring member 11A is provided on the inner flat surface thereof with a plurality of projections 15' at a predetermined interval, while the lower ring member 11B is provided in the confronting surface thereof with recesses 16' at a predetermined interval for interlocking engagement with said projections 15' respectively.

In this embodiment, the manner of mounting the drum sheet 11 between the upper and lower ring members is substantially the same as in the preceding embodiment and, therefore, will not be described herein. Parts similar to those in the preceding embodiment are indicated by same reference numerals.

The drum sheet may of course be made of animal skins instead of the synthetic resin sheet.

Although the present invention has been described and illustrated in terms of specific embodiments thereof, it should be understood that the invention is of course not restricted

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only to the embodiments shown but many changes and modifications are possible without deviating from the spirit of the invention.

What is claimed is:

1. A drumhead comprising an upper ring member and a lower ring member which are provided on the confronting surfaces thereof with a plurality of projections and a plurality of recesses respectively at a predetermined interval for interlocking engagement with each other, and a drum sheet having a plurality of through-holes formed in the peripheral edge portion at a predetermined interval at locations corresponding to said projections respectively, said drum sheet being clamped between said upper and lower ring members with said projec-

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tions extending through said through-holes and secured thereto by means of an adhesive.

2. A drumhead as defined in claim 1, wherein said upper and lower ring members are provided with an annular shoulder and an annular wall respectively for interlocking engagement with each other.

3. A drumhead as defined in claim 1, wherein said projections formed on the upper ring member and said recesses formed in the lower ring member are frustoconical in shape.

4. A drumhead as defined in claim 1, wherein said upper and lower ring members are made of synthetic resins.

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