Feb. 16, 1932. G. M. ROBISON 1,845,625

DRUM

Filed Feb. 27, 1928

Fig. 1.

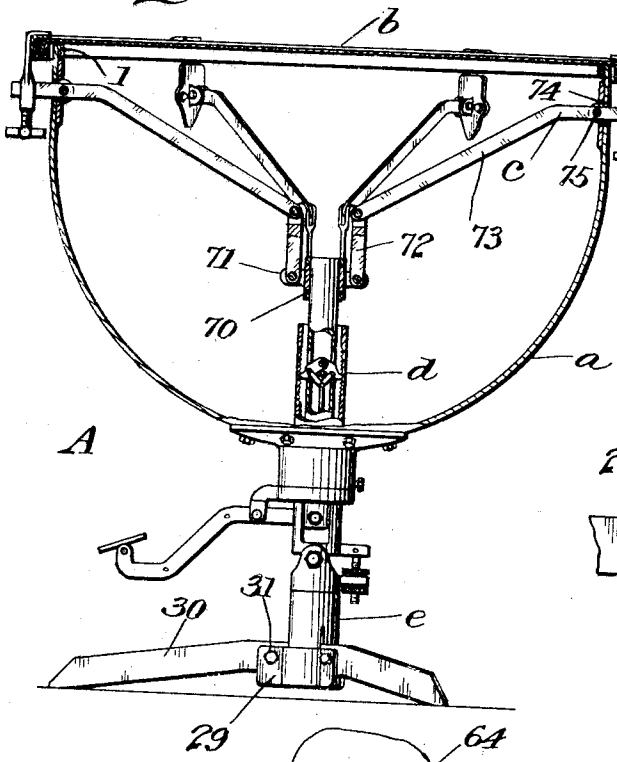
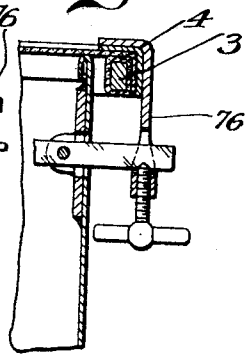



Fig. 3.



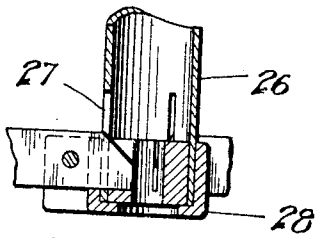
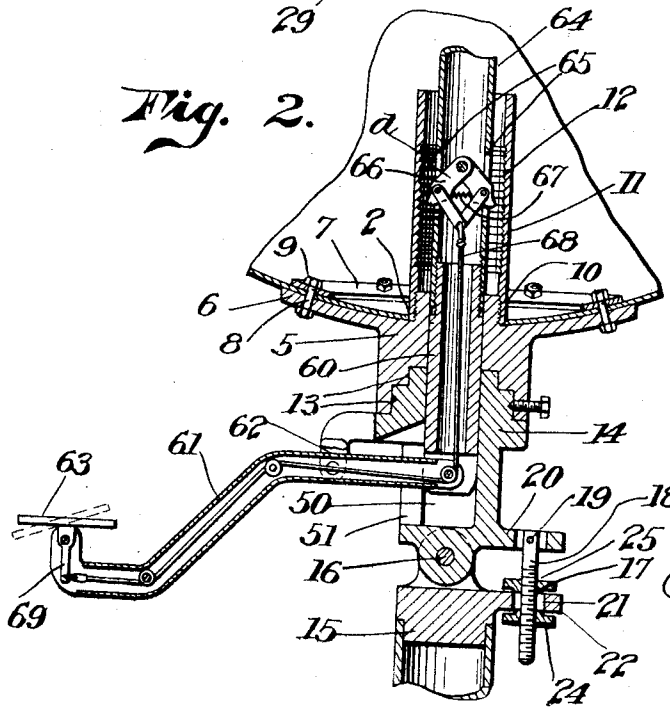




Fig. 4.

Fig. 2.



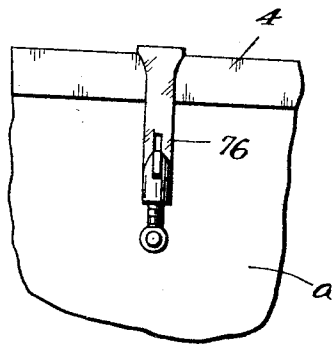




Fig. 5.

INVENTOR:
George M. Robison,
BY Blakeslee & Brown
ATTORNEYS.

Patented Feb. 16, 1932 1,845,625

# UNITED STATES PATENT OFFICE

GEORGE M. ROBISON, OF LOS ANGELES, CALIFORNIA

## DRUM

Application filed February 27, 1928. Serial No. 257,505.

This invention relates to improvements in a tympano or drum and has for an object the provision of a drum which is so constructed and arranged that tuning thereof is easy of accomplishment.

Another object is the provision of a drum so arranged and constructed that tuning is rapidly accomplished without the necessity of tightening individual hand clamps.

In practising the invention I have provided a drum of the kettle type having a series of levers provided with clamps adapted to engage the drum head, and with suitable means for moving the levers to tighten the clamps, and which means is readily releasible by a foot pedal to vary the tuning of the drum head.

Other objects include a drum which is simple of construction, positive in operation, true as to tuning results obtained and generally superior.

With the above and other objects in view, the invention consists in the novel and useful provision, formation, construction, association and relative arrangement of parts, members and features all as shown in a certain embodiment in the accompanying drawings described generally and more particularly pointed out in the claims.

In the drawings:

Fig. 1 is a vertical sectional elevation of the improved drum;

Fig. 2 is a fragmentary vertical elevation of certain portions of the invention and on an enlarged scale;

Fig. 3 is a cross sectional view of one of the clamps for the drum head;

Fig. 4 is a sectional view of a portion of the tripod support, and

Fig. 5 is a fragmentary elevation of one of the clamps in association with the drum head.

Corresponding parts in the several figures are designated by the same reference characters.

Referring now with particularity to the drawings, the improved drum is designated as an entirety by A, of which *a* is the drum body, *b* the drum head, *c* and *d* means for varying the tautness of the drum head and *e* a supporting means for the elements *a* to *d* inclusive, all of which elements may be used in practising one embodiment of the invention.

The drum body is conventional in form, usually being spherical in contour and provided with a rim flange 1, and with a central opening 2. The drum head *b* is usually stretched over the spherical body *a* and bears against the rim flange 1 as illustrated in Fig. 1, the drum head being formed of the usual substance or material and held by annular members 3 and 4 as is usual. The body *a* rests upon and is secured to a member 5, which member is substantially annular and provided with a flange 6. A ring 7 is within the body *a* and bolts or other securing means 8 are passed through aligned openings between the flange 6, body *a* and the ring 7 and secured by nuts 9, whereby the several parts are rigidly held together. This member 5 is formed with a portion of reduced diameter which is externally screw threaded at 10, to which screw threads is secured a tubular member 11. This tubular member 11 is formed with a plurality of internal serrations 12 and said tubular member with its serrations forms one part of a locking means designated generally as *d*. The member 5 is provided with a stepped opening 13 within which stepped opening is received a correspondingly stepped standard 14. This standard forms a part of the means *e* and the standard is in two parts 14 and 15, the said parts being hingedly connected at 16 and adjusted as to any angular relation to be assumed by the said parts by means 17 which constitute a screw threaded bolt 18 pinned at 19 within a lug 20 secured to the standard 14 and passed through an enlarged opening 21 in a lug 22 secured to the part 15. Nuts 24 and 25 are secured to the bolt 18 and on op-

posite sides of the lug 22. The said standard 15 likewise includes a tubular part 26 formed with one or more radial slots 27 adjacent its end and with a spider or web 28 secured to the end of said standard member 26. This spider or web is provided with outstanding spaced portions in pairs and equidistantly arranged circumferentially as shown at 29 and tripod legs or supports 30 are pivotally secured between each pair of said members 29 as indicated at 31 with portions of said tripod legs received within the standard 26 at the slotted portions 27 thereof as shown in Figure 4. This construction allows the legs to be collapsed downwardly for ease in transportation when the parts are disassembled. In other words it forms what may be termed a collapsible tripod. The standard 14 is hollow in the portion 50 and provided with a slot 51 communicating between the said hollow portion 50 and the exterior of the standard. Furthermore the hollow portion 50 is of a diameter corresponding to the diameter of the bore of the annulus 5. A tubular member 60 is slidable within the annular opening of the member 5 and the hollow portion 50 and which tubular member is adapted to have secured thereto a bent lever 61 and which lever is pivoted to a lug at 62, which lug extends downwardly from and forms a part of the member 14. This lever is preferably hollow or tubular in nature and carries at its outer extremity a pivotally mounted pedal 63. Secured by screw-threading or otherwise to the member 60, is tubular member 64 and this tubular member is diametrically slotted at 65 and has secured within the same a pair of locking dogs 66 which dogs form elements of the means *d*. These dogs are normally urged apart by coil springs 67 and a pair of levers are secured to said dogs and in turn secured together through the medium of a cable 68, which cable is passed over rollers within the member 61 with the cable finally attached to a lever 69 joined to the pedal 63. Thus a tipping of the pedal will permit the dogs to either be urged apart through the medium of the spring 67 and into engagement with the serrated portions 12 of the member 11 or to be disengaged from said serrated portions. The member 64 carries at its upper end a collar 70, which collar is provided with a plurality of outstanding lugs 71. Short arms 72 are secured to said lugs and lever members 73 are in turn secured to the arms 72. It is understood that there will be a plurality of said lever members 73 and that these levers form a portion of the means *c*. Each one of said levers 73 is passed through a slot 74 in the drum body and likewise pivoted by means 75 to said drum body in the zone of said slot. The outer extremities of said levers carry clamps 76, which clamps engage the drum head *b* in the manner shown in Fig. 3.

The operation use and advantages of the invention as just described are as follows:

Assuming that the parts are in the position illustrated in Fig. 1 and it is desired to tighten the drum head *b*, direct pressure downwardly upon the pedal 63 will move the pedal arm or lever 61 in such a manner that the member 60 will be moved upwardly, which upward movement will force the arms 72 upwardly and revolve the levers 73 in such a manner that the outer extremities thereof move downwardly, which downward movement will be communicated to the clamps to in turn depress the rim of the drum and cause it to be tensed over the flange 3 of the body *a*. The locking dogs will engage the serrated locking portions of the member 11 and will hold the drum head in the adjusted or tuned position. If it is desired to retune the drum, the pedal will be moved from the dotted position of Fig. 2 to the full line position of the same figure, which will release the dogs from engagement with the serrated portion and as a consequence the tension on the clamps may be released and a further tensioning position of the drum head selected.

The device is simple to operate and any experienced trap drummer with little practise can instantly tune a drum without the necessity of turning every individual clamp upon the drum head as is now the universal practise.

It is obvious that various changes, modifications and variations may be made in practising the invention in departure from the particular showing of the drawings, without departing from the true spirit thereof.

Having thus disclosed my invention, I claim and desire to obtain by Letters Patent:

1. In a drum, a drum body, a tubular member provided with internal teeth received within said drum body, a second tubular member concentric within the first tubular member, dogs carried by the second tubular member and for engagement with the said teeth of the first tubular member to hold the second tubular member in a determined position relative to the first tubular member, means controlling engagement of said dogs with said teeth, a drum head for the drum body, and means of connection between the drum head and drum body and secured to said second tubular member, whereby movement of the second tubular member may serve to tension or release the drum head relative to the drum body.

2. In a drum, a drum body, a drum head for said body, said drum body being provided with a plurality of transverse slots in a zone adjacent the drum head, a plurality of equidistantly spaced levers within said body and having a portion thereof extending through the said slots and outward from

said drum body, means for pivoting said levers to said drum body at the zone of said slots, links within the drum body and secured to the inner ends of said levers, a tube secured to said links, a foot operated lever for controlling movement of said tube to in turn move said levers relative to the pivot points thereof with the said drum body, and means secured to the outer end of said levers and in engagement with said drum head and whereby tensioning and slaking of said drum head may be accomplished upon movement of the foot lever.

In testimony whereof, I have signed my name to this specification.

GEORGE M. ROBISON.