No. 674,550. Patented May 21, 1901.

E. P. ZEIDLER.

DRUM.

(Application filed Feb. 11, 1901.)

(No Model.)

FIG. 1.

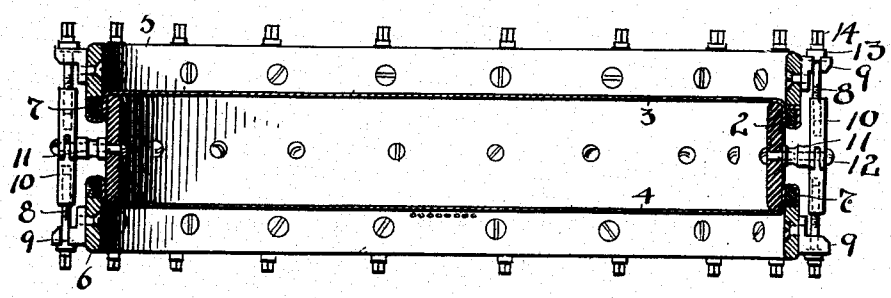


FIG. 2

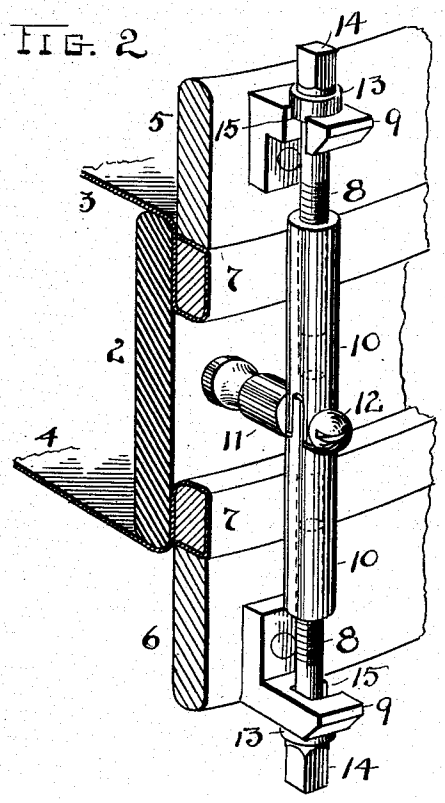
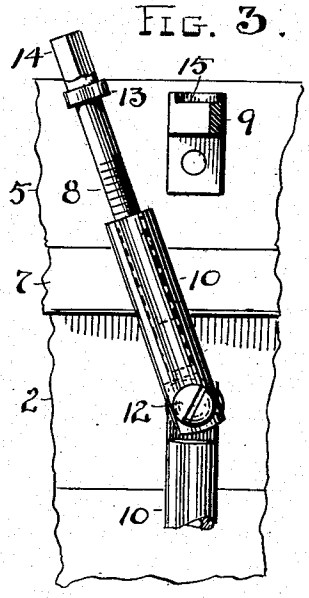


FIG. 3.



ATTEST

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EDWARD P. ZEIDLER, OF CLEVELAND, OHIO.

DRUM.

SPECIFICATION forming part of Letters Patent No. 674,550, dated May 21, 1901.

Application filed February 11, 1901. Serial No. 46,848. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. ZEIDLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Drums; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in drums; and the invention consists in the clamping and tightening mechanism for the heads of a drum, all substantially as hereinafter described, and particularly pointed out in the claims.

The object of the invention is to provide an orchestra-drum or any other kind of drum having removable heads with clamping and tightening screws constructed to permit the easy and rapid removal or replacing of either or both the heads of the drum.

Heretofore, as far as I am aware, whenever occasion necessitated the removal or replacing of a drum-head, as in the event of a broken or otherwise-damaged head, such removal required plenty of time and was a slow and difficult operation. This fact precluded the idea of a drummer replacing a broken head during an orchestral entertainment or in any other situation where time was an object. With my improved drum such change can be easily and rapidly made in less than two minutes' time, one of the reasons therefor being that my clamping and tightening members are all permanently attached to the several drum parts, where perfect alinement and prompt engagement can be had as soon as the drum parts are put together, whereas heretofore the clamping parts and drum parts were independent and separate and required individual attention as to alinement and adjustment. Other features of my construction of the clamping-screws also contribute materially to obtain the desired results as above enumerated, all of which are more clearly set forth in the following description.

In the accompanying drawings, Figure 1 is a vertical sectional elevation of a drum with my improved clamping device thereon. Fig. 2 is a full-size perspective view of a portion of the drum and one set of the clamping-screws in locking position. Fig. 3 is an elevation of one of the screws swung to one side out of disengagement with the angle locking plate or lug, which is shown in section to more clearly disclose the recessed and countersunk portion for the head of the screw.

This improvement applies to drums of every description, whether band, bass, or other drum, and in this instance is shown in connection with an orchestra-drum built up in the usual manner. The several parts of the drum comprise a central body or band 2, upon which drum-heads 3 and 4 are held and tightened by means of rims 5 and 6. These rims are slightly larger in diameter than the body and bear upon drum-head rings 7, and the heads are tightened and held in place upon the body by a series of clamping-screws 8, each of which engages an angle locking plate or lug 9, screwed or otherwise fastened upon rims 5 and 6. Each screw is threaded into a supporting member 10, pivotally mounted on a post or stud 11, fastened at right angles to body 2 at about its horizontal center, and in order that the strain or pull upon said post be equally divided a set of two screws and members 10 therefor are arranged to extend in a vertical line to the opposite head-rims 5 and 6 from a single post. The pivotal connection of these two members upon a single post is made by means of a screw 12, which passes through overlapping ears or extensions on members 10 and threads into the end of the post. It will thus be seen that if for any reason any of said parts are bent or damaged they can be easily removed and replaced, but are otherwise a fixed or permanent part of the body.

Screws 8 are each provided with an enlarged head or collar 13 and an angular or squared extension 14 at their outer ends, and head 13 is adapted to rest in a recessed countersunk portion 15 in the top of angle plate or lug 9 when the tightening of the heads is under way and thereafter, as accomplished by a suitable wrench, (not shown,) which engages and turns screw 8 through angular extension 14. The angle-plate is slotted or open at one side to enable the shank of screw 8 to pass centrally into countersink 15 and plate 9, and by having said screw pivotally supported to work therewith engagement and

disengagement are both easily and rapidly accomplished. It is obvious that to accomplish the same results as above stated the slot in plate 9 could be at the front and the screw and its supporting member be pivoted to swing outward instead of to the side.

The advantage in having a countersunk portion 15 in combination with a headed screw to set therein and removable at right angles thereto consists not only in the fact that a screw-lock is thus obtained when the screw is tightened, but that when the screw is also unscrewed back to where disengagement can be made head 13 will still rest in countersink 15 and prevent accidental disengagement until all the screws have been loosened or reset and it is finally desired to disengage the same. This is rendered possible by a certain amount of give and take-up tension imparted by the drum-heads through the rims upon which plates 9 are fastened when disengagement of screw 8 and said plate is desired after said screw has been unscrewed sufficiently. A slight down or inward pressure upon the rims will then release the head from its countersunk seat, and the screw can be pushed outward and be freed from plate 9.

Only a few turns of the screw are needed to place it in unlocking or disengaging position; but when locked tightly a fast and effective clamp is had, which not only retains the practical points of the old reliable methods, but also adds thereto the meritorious feature of a simple and rapid disengagement quality.

The assembling of the drum parts is greatly facilitated by having the angle-plates 9 screwed in their proper places upon the rims, so that said plates and the screws on the body can be instantly and accurately placed in alinement ready for fastening and tightening the heads. Then, again, where all said clamping parts are permanently fastened on their respective drum parts, as in this case, the danger of losing or mislaying any of the members is entirely prevented.

What I claim is—

1. The drum-body having removable rims and heads, and clamping members fastened to said body and rims to tighten and hold said heads in place, said members comprising separate engaging parts constructed to swing in and out of engagement with each other, substantially as described.

2. The drum-body and the series of clamping members pivotally fastened thereon, in combination with the head-fastening rims having plates fastened thereto to engage and hold said clamping members, substantially as described.

3. The drum-body and the removable rims and heads thereon, a series of clamping members to tighten the heads and outwardly-projecting parts mounted on said rims and constructed with lateral openings through which said clamping members are engaged, whereby the said clamping members are engaged and disengaged by a sidewise movement, substantially as described.

4. The drum-body and its removable rims, jointed clamping members supported between their outer ends upon said body, and lateral projections mounted on said rims having the ends of said clamping members locked therein, said lateral projections constructed with side openings to enter and remove the said clamping members, substantially as described.

5. In clamping and tightening mechanism for drums, the combination of a pivoted locking member having an end adjustment, and an interlocking member to engage and hold said pivoted member, and means to secure each member independently in alined working relation upon the body and rims of the drum, substantially as described.

6. In clamping mechanism for tightening and fastening drum-heads, the combination of a pivoted member having a tightening-screw adjustably supported therein, and an interlocking member independently supported and adapted to engage and receive said screw, substantially as described.

7. The drum-body having removable rims and heads, and clamping members supported upon said body and rims comprising the pivoted member, the tightening-screw, and the separate interlocking member for said screw, substantially as described.

8. The drum-body having removable rims and heads, clamping members supported upon said body and rims and comprising the pivoted screw-supporting member, the headed screw, and a separate slotted and countersunk interlocking member for said screw, substantially as described.

9. As a new article of manufacture and sale, the clamping members for tightening and fastening the heads of a drum comprising a supporting-post, the pivoted members mounted on said post, the headed screw adjustably supported upon said members, and the separate angle-plates having a recessed and countersunk portion to receive and lock said screw, substantially as described.

10. The drum-body and the removable rims and heads thereon, posts fastened centrally to said body and plates secured to said rims, and oppositely-extending members pivoted to said post and having an adjustable screw in each to engage and interlock with said plates, substantially as described.

Witness my hand to the foregoing specification this 28th day of January, 1901.

EDWARD P. ZEIDLER.

Witnesses:

R. B. MOSER,

H. E. MUDRA.