W. F. LUDWIG.

DRUM AND CYMBAL BEATER.

APPLICATION FILED MAR. 12, 1910.

1,092,276.

Patented Apr. 7, 1914.

2 SHEETS—SHEET 1.

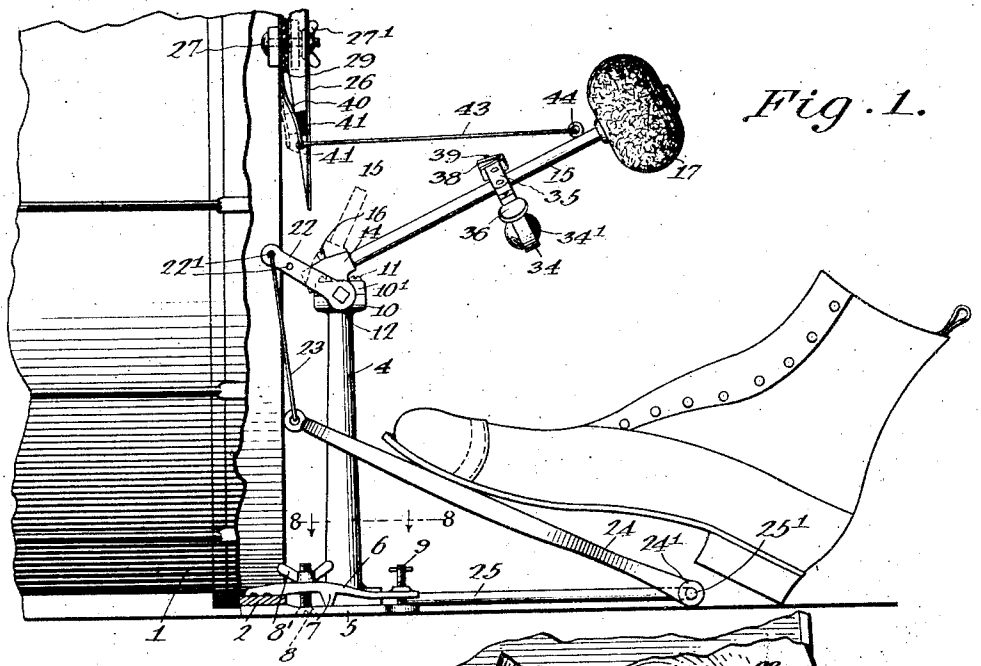


Fig. 1.

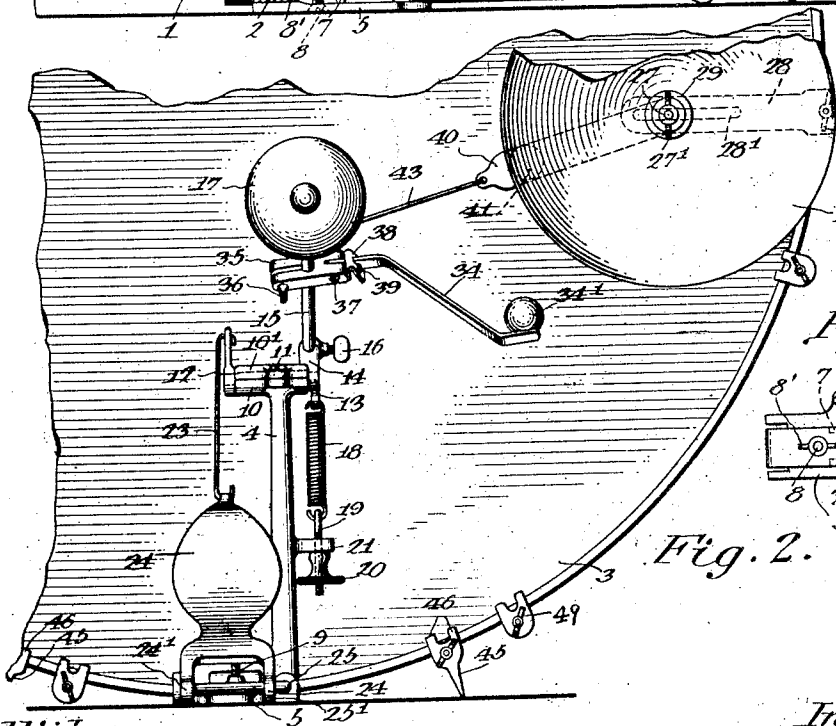


Fig. 2.

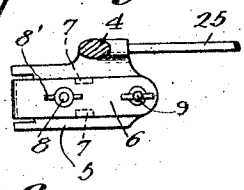


Fig. 3.

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2 SHEETS—SHEET 2

Fig. 6.

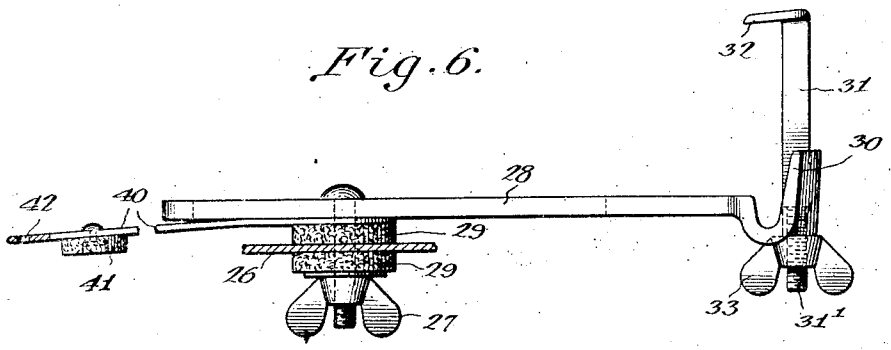
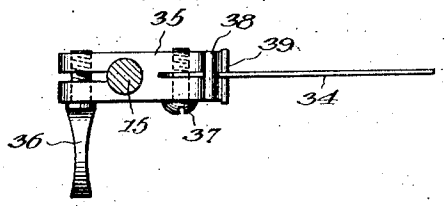


Fig. 5.



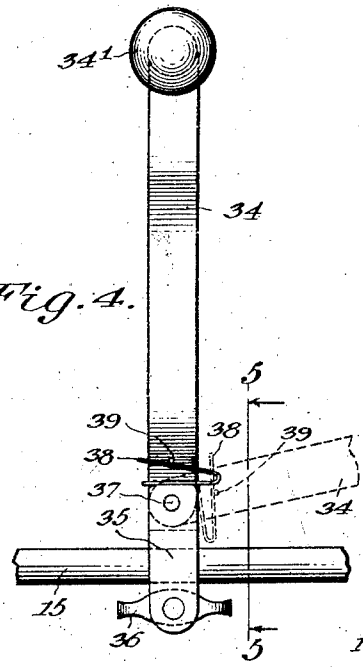
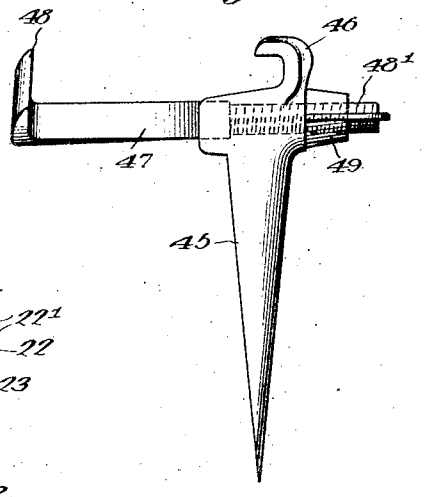


Fig. 4.

Fig. 7.



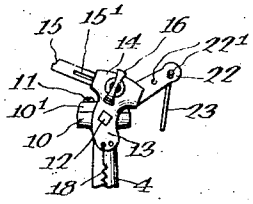


Fig. 3.

Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

WILLIAM F. LUDWIG, OF CHICAGO, ILLINOIS.

DRUM AND CYMBAL BEATER.

1,092,276. Specification of Letters Patent. Patented Apr. 7, 1914.

Application filed March 12, 1910. Serial No. 549,024.

To all whom it may concern:

Be it known that I, WILLIAM F. LUDWIG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Drum and Cymbal Beaters, of which the following is a description.

My invention belongs to that class of devices known as drum and cymbal playing apparatus and relates more particularly to a device for playing or beating a drum and cymbal, as well as muffling the cymbal, and is in the nature of an improvement over the device shown and described in my Letters Patent of the United States dated May 25, 1909, Serial No. 922,706.

My invention has among its objects the production of a simple, efficient and satisfactory device of the kind described that is light, durable and compact, perfectly balanced, with unlimited speed and certain stroke without lost motion, as well as a device that will produce a natural arm struck tone.

To this end my invention consists in the novel construction, arrangement and combination of parts herein shown and described and more particularly pointed out in the claims.

In the drawings wherein like reference characters indicate like or corresponding parts, Figure 1 is a side elevation of my preferred form of device, Fig. 2 is a front elevation of the same, Fig. 3 is a view in elevation showing a portion of the opposite side of the device, Fig. 4 is a top plan of the cymbal beater, Fig. 5 is a side elevation of a portion of the same taken substantially on line 5—5 of Fig. 4, Fig. 6 is a top elevation of the cymbal supporting arm, and Fig. 7 is a side elevation of one of the spurs for maintaining the drum and device in operative position. Fig. 8 is a detail horizontal sectional view taken on the line 8—8, Fig. 1.

Referring to the drawings, 1 represents the drum provided with the usual hoop 2 and head 3. The device comprises a support or standard 4 extended as at 5 to form a base, which base is also one part of a clamping member. The standard may be secured to the hoop 2 by means of the extended part 5 and a coöperating clamping member 6 the latter rocking on the former on lugs 7, and being controlled by a screw bolt 8 headed in the base 5 and carrying a thumb nut 8′, and by a screw bolt 9 rotatably fixed in base 5 and in screw-threaded engagement with clamping member 6.

At the upper end of the standard is a bearing, the same being shown in two parts 10, 10^1 which may be secured together by means of screws 11 or their equivalents for the purpose. Supported centrally by the bearing is a shaft 12 provided at one side of said bearing with a socket 14 in which is secured the beater arm 15 carrying the beater 17. The arm 15 may be secured to the part 14 in any suitable manner. As shown it is grooved as at 15^1 and locked in position by means of a thumb screw 16. It is of course obvious that the arm 15 may be secured to the arm 13 in any other suitable manner.

A resilient member 18 secured to an arm 13 preferably formed integral with the socket 14 and coöperating with the extension 21, bolt 19 and thumb nut 20 normally resiliently and adjustably maintains the beater arm and beater in the position shown in Fig. 1. The shaft 12 also carries an arm 22 preferably arranged in the opposite end of the shaft and at the opposite side of the standard, which arm is suitably connected to a pedal 24 by means of a connecting rod 23 or its equivalent. The rod 23 is preferably made of wire or the like so that it is not flexible, as in the case of a chain or cord, not stretched. If desired, a plurality of holes 22^1 may be provided to afford adjustment. The opposite arm of the pedal 24 is pivotally secured to a rod 25 bent as at 25^1, the bent portion being adapted to extend through holes in the ends 24^1 of the pedal. The rod 25 may be secured to the standard 4 or base 5 in any suitable manner, preferably however, so that it is removable. As is obvious, depressing the pedal draws down the arm 22, thereby rotating shaft 12, causing the beater 17 to strike the drum head 3 with a quick, powerful stroke exactly as the action of the wrist in beating the drum by hand. Upon releasing the pedal the resilient member 18 draws the same back substantially as shown in the drawings.

The cymbal 26 is secured to the drum hoop 2 by means of an arm 28, the cymbal being secured to the arm by a bolt 27 and thumb nut 27^1, suitable felt 29 or the equivalent being arranged as shown. For the purpose of adjustment a slot 28^1 may be provided in the arm 28 if desired. The arm 28 is secured to the drum by means of the hooked end 30

and the adjustable part 31 provided with the hooked end 32 and thumb nut 33 arranged to coöperate with the threaded end 31^1, the ends 30 and 32 engaging the drum hoop. As shown most clearly in Fig. 6, the end 32 is inclined.

To beat the cymbal I provide a cymbal beater arm 34 adjustably arranged on the beater arm 15, the same being secured in a part 35 which may be adjustably locked on the arm 15 by a thumb nut 36 or the equivalent. The arm 34 is pivotally connected to the part 35 by means of a screw 37 so that the same may be turned back and out of operation substantially as shown by the dotted lines in Fig. 4. To maintain the arm in either position a resilient member 38 and pin 39 or their equivalents for the purpose may be provided. It will be noted that the cymbal beater can be adjusted to any angle, can be thrown on or off at will, and that by setting the cymbal beater higher or lower on the beater rod it is possible to regulate the stroke to get as much or as little cymbal as desired.

As is obvious, when the arm is in the position shown in Figs. 1, 2 and 4, the cymbal will be struck at the same time as the drum head. To muffle or prevent vibration of the cymbal after striking I provide a muffler arm 40 provided with felt 41 or its equivalent, the arm being resilient so that it tends to normally spring back as indicated by the dotted lines in Fig. 1. The muffler is connected to the arm 15 by a cord 43 passing through the hole 42 in the muffler arm and an eye 44 on the arm 15, the same being secured thereto. When the arm 15 returns to the positions shown the cymbal is muffled. Of course if it is desired to muffle the cymbal at any particular time by controlling the pedal and preventing the complete return of the beater arm the cymbal will not be muffled until the pedal is released.

To maintain the standard 4 and base 5 on the floor or in operative position, I preferably provide two or more spurs 45 on the drum hoop, the spur comprising a hooked end 46 and adjustable member 47 provided with a hooked end 48 and thumb nut 49 arranged to engage the threaded end 48^1 of the member. As is obvious, when the spurs are positioned they engage the floor and maintain the drum against displacement, thereby keeping the standard flat upon the floor or in operative position.

The present device has the desirable action of a swing pedal and the small dimensions of a floor pedal. To fold for packing the beater arm may be turned back, the resilient member being disengaged from the standard and the foot board detached, making a small parcel with comparatively little weight. Should any part wear out or break it may be easily replaced without any required skill, owing to the simplicity of the device and the comparative ease with which it may be assembled.

Having thus described my invention it is obvious that various immaterial modifications may be made in the same without departing from the spirit of my invention, hence I do not wish to be understood as limiting myself to the exact construction, arrangement or combination of parts herein shown and described.

What I claim as new and desire to secure by Letters Patent is:

1. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a transverse shaft centrally journaled in the upper portion of said standard, a beater arm secured to said shaft at one side of its bearing, an operating arm for said shaft attached thereto on the opposite side of said bearing, a pedal, and means for operatively connecting said pedal and said operating arm.

2. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a transverse shaft centrally journaled in the upper portion of said standard, an arm secured to said shaft at one side of the bearing, a beater arm removably secured in a socket in said arm, resilient means secured to said arm for normally retaining the same and its beater arm in inoperative position, an operating arm for said shaft attached thereto on the opposite side of said bearing, a pedal, and means for operatively connecting said pedal and said operating arm.

3. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a drum beater arm pivotally mounted on said standard, means for operating said arm, and a cymbal beater carried by said arm and comprising an adjustable clamping member, an arm pivotally secured thereto, and means permitting movement of said arm on said pivot but automatically retaining said arm at either limit of its movement thereon.

4. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a drum beater arm pivotally mounted on said standard, means for operating said arm, and a cymbal beater carried by said arm and comprising an adjustable clamping member, an arm pivotally secured thereto, and means comprising a resilient member and a pin for permitting movement of said arm on said pivot but automatically retaining said arm at either limit of its movement.

5. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a transverse shaft journaled in the upper portion of said standard, a beater and an operating arm carried by said shaft, a pedal, means for operatively connecting said pedal and said operating arm, a spring connected at one end to said standard, and an arm on said transverse shaft to which the other end o said spring is connected, said spring ex r ing its tension substantially in the lin of said vertical standard and said arm and spring normally being in alinement.

6. In a device of the charact described, a vertical standard provided wit a supporting base, means for clamping said standard and base to a drum, a transverse shaft journaled in the upper portion of said standard, a beater and an operating arm carried by said shaft, a pedal, means for operatively connecting said pedal and said operating arm, a bracket on said standard, a spring connected at one end to said bracket, and an arm on said transverse shaft to which the other end of said spring is connected, said spring exerting its tension substantially in the line of said vertical standard and said arm and spring normally being in alinement.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM F. LUDWIG.

Witnesses:
F. T. EDMUNDS,
G. P. JACKSON.