

[54] **LINKAGE FOR FOOT OPERATED BASS DRUM PEDAL**

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[58] Field of Search 74/89.2; 84/411, 422, 424, 84/426

[56] **References Cited**

UNITED STATES PATENTS

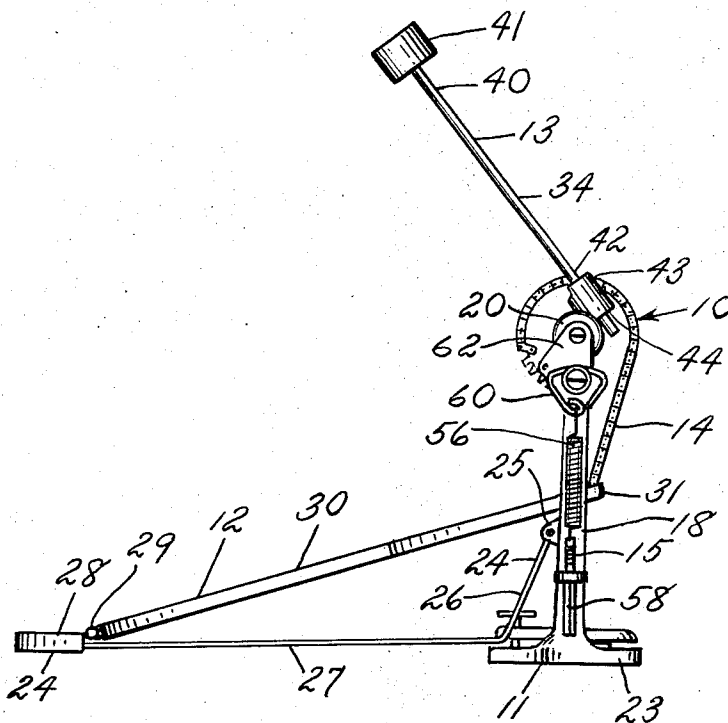
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[57] **ABSTRACT**

A linkage for driving a foot-operated bass drum pedal in which the conventional leather strip interconnecting the toe end of the pedal and a transversely mounted shaft carrying means for securing the pivoting end of the drum stick is replaced by a sprocket chain engaging a sprocket on said shaft. Coarse adjustment of the length of stroke is obtained by shifting the mounting means on the shaft, and fine adjustment is obtained by shifting the end point of the chain with respect to the particular teeth engaged on the sprocket. The last link of the sprocket end of the chain is secured by pintel or cotter key means extending through one of a plurality of transversely extending holes located at the periphery of the sprocket adjacent the inner ends of the teeth thereof.

2 Claims, 3 Drawing Figures



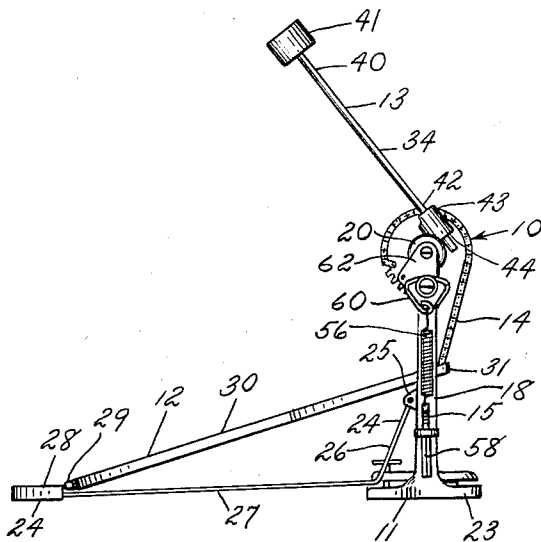


Fig. 1

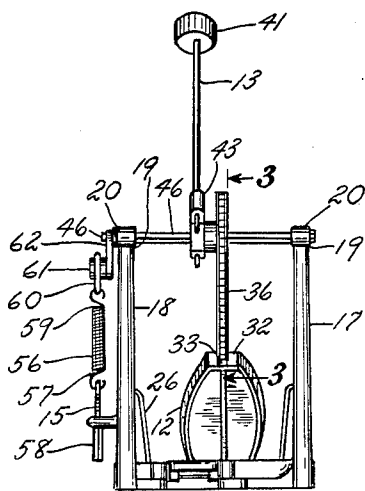


Fig. 2

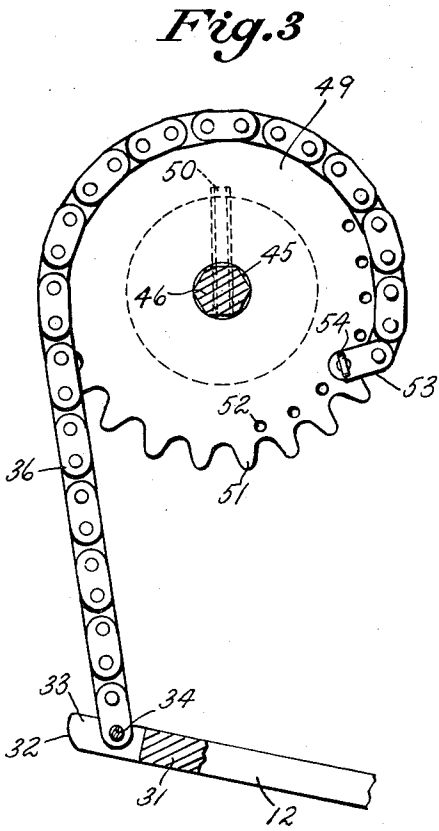


Fig. 3

LINKAGE FOR FOOT OPERATED BASS DRUM PEDAL

This invention relates generally to the field of musical instruments, and more particularly to an improved bass drum pedal which permits a drummer selectively playing upon a plurality of drums to operate the bass drum with his foot, leaving the hands free for operation of other drums, cymbals and the like. Devices of this general type are well known in the art, and the invention lies in specific constructional details permitting easier and more reliable operation.

BRIEF DESCRIPTION OF THE PRIOR ART

As in the present embodiment, the prior art constructions include a frame element having a floor engaging portion supporting a pair of vertically disposed trunnions, the trunnions in turn supporting a shaft for pivotal movement about a substantially horizontal axis. The heel end of the pedal is carried by an extension mounted on the frame, and the toe end of the pedal interconnects with one end of a flexible leather strap, the other end winding about entraining means carried by the horizontal shaft. Resilient means is also associated with the shaft to return it to predetermined position, such that the drum stick which extends substantially radially from the axis of the shaft is positioned for such subsequent movement to urge a padded free end against the drum head with which the device is associated.

While leather straps have functioned for this purpose with a reasonable degree of satisfaction, being of organic material they are subject to progressive deterioration, and reach a point of failure most often during a musical performance, during which time replacement or repair is not readily available. Leather strips are also subject to substantial stretching prior to failure, so that accurate adjustment of the pedal with increasing age of the strap becomes progressively more difficult.

BRIEF DESCRIPTION OF THE PRESENT INVENTION

Briefly stated, the invention contemplates the replacement of the leather strap with a short length of sprocket chain which is entrained upon a toothed sprocket carried by the horizontal shaft which carries the drum stick. One end of the sprocket chain is pivotally fixed to the toe end of the pedal, and the other end is selectively anchored at any one of a plurality of peripheral points on the sprocket to regulate the effective length of the chain. This latter interconnection is obtained by providing a plurality of holes extending through the plane of the sprocket approximately at the base of each tooth, so that when the penultimate link is engaged upon a tooth, the end link may be moved to overly one of the holes to be pinned by a small cotter key or the like. There is thus provided a substantially unbreakable linkage between the pedal and the shaft offering exceptional smoothness of operation in an unstretchable linkage. Proper adjustment, once obtained, is maintained indefinitely.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings, to which reference will be made in this specification, similar reference characters have been employed to designate corresponding parts throughout the several views:

FIG. 1 is a longitudinal side elevational view of an embodiment of the invention.

FIG. 2 is an end elevational view thereof as seen from the righthand portion of FIG. 1.

FIG. 3 is an enlarged fragmentary sectional view showing the entraining of the linkage means upon the sprocket for the transmission of motion from pedal to drum stick.

DETAILED DESCRIPTION OF THE DISCLOSED EMBODIMENT

In accordance with the invention, the device, generally indicated by reference character 10, comprises broadly: a frame element 11, a pedal element 12, a drum stick element 13, linkage means 14, and resilient means 15.

The frame element 11 is preferably formed as in metallic casting, and includes a base of floor engaging member 16 supporting first and second trunnions 17 and 18, the upper ends 19 of which are provided with horizontal axis bearings 20.

The pedal element 12 is carried by the frame element 11, and includes a base member 23 the free ends 24 of which are interconnected pivotally with mounting tabs 25 on the frame element. Angularly disposed portions 26 communicate with floor engaging portions 27, in turn supporting pedal mounting means 28 engaging the rear or heel end 29 of the pedal 30. The toe end 31 thereof includes mounting means 32 defining a slot 33 penetrated by a pintle 34 whereby the end link 35 of the sprocket chain 36 may be pivotally interconnected.

The drum stick element 13 includes a shaft 37, the outer end 40 mounting a padded member 41 of well known type. The lower end 42 is carried by a socket 43 in a clamp 44, the base thereof defining a hexagonally-shaped bore 45 corresponding to the cross section of a transversely mounted shaft 46 carried by the bearings 20.

The linking means 14 includes the above-mentioned sprocket chain 36, which progressively entrains upon a sprocket 49 also carried by the shaft 46 and maintained by a set screw 50. The sprocket 49 is provided with conventional teeth 51. Adjacent and slightly off the central axis of each tooth are a plurality of transversely extending bores 52 to which the other end link 53 of the chain 36 is selectively interconnected by the cotter key or drive pin 54.

The resilient means 15 is generally conventional, and includes a vertically disposed coil spring 56, the lower end 57 of which is provided with threaded tensioning means 58. The upper end 59 thereof interconnects with the loop 60 carried by a stud 61 on a downwardly pendant bracket 62 carried by an end of the shaft 46, the contraction of the spring serving to return the pedal to a position of readiness for subsequent operation. Since the function of the resilient means is well understood, in the prior art, it need not be further considered herein.

We wish it to be understood that we do not consider the invention limited to the precise details of structure shown and set forth in this specification, for obvious modifications will occur to those skilled in the art to which the invention pertains.

We claim:

1. Here a foot-operated bass drum pedal, including a frame element having a generally horizontally oriented

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shaft pivotally supporting an end of a drum stick, pedal means for rotating said shaft, improved means for linking said pedal and said shaft comprising: a toothed sprocket adjustably positioned for coaxial rotation with said shaft, a sprocket chain entrained upon said sprocket having first and second ends, said first end being pivotally interconnected to a forward end of said pedal, said second end being selectively fixed to one of

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the plurality of spaced points on the periphery of said sprocket.

2. Structure in accordance with claim 1, further characterized in said sprocket having a plurality of through holes extending perpendicular to the plane thereof in the area of said periphery, and end link of said sprocket chain being selectively pinned at one of said openings.

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