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PEDAL ACTUATED DRUM STICKS

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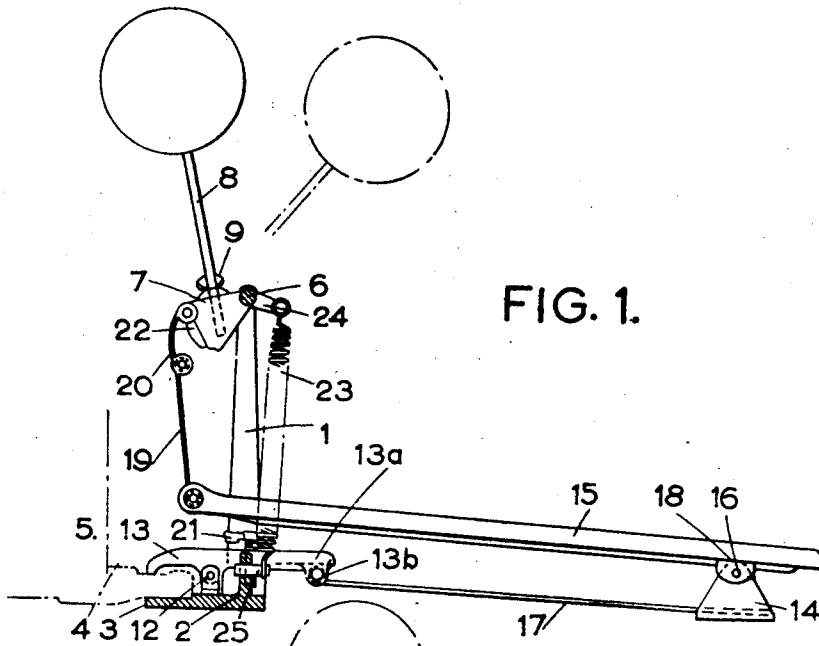


FIG. 1.

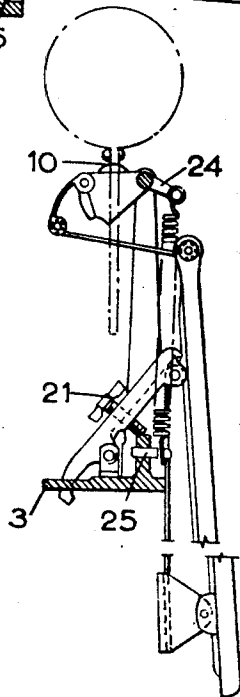


FIG. 2.

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PEDAL ACTUATED DRUM STICKS

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2 Claims. (Cl. 84-422)

This invention relates to foot pedal actuated devices for operating drum sticks or similar percussion instrument. The present form of foot pedal actuated device for a drum stick usually comprises a bracket carrying a crank to which is attached one end of the drum stick, the crank having connected across its free end and the end of the pedal remote from its fulcrum, a link so that the depression of the inclined pedal pulls downward the crank and throws the free end of the drum stick forwardly against the drum.

A disadvantage of the present drum sticks of the above-mentioned type is that they cannot be folded away in a compact form for transporting with the drum's equipment and the chief object of the present invention is to provide an arrangement which ensures folding the pedal drum stick into a compact and substantially flat bundle. Another object of the present invention is to enable the foldable drum stick device to be securely fixed in position relatively to the drum when in use.

According to the present invention, instead of forming the support for the fulcrum of the foot pedal as an integral part of the base of a bracket which includes the upstanding support to the upper part of which is connected pivotally a retainer for the drum stick, the fulcrum support for the pedal is connected relatively foldably to the base of the bracket by linkage extending across said pivotal support and the base of the bracket.

Further, in accordance with the present invention, the said linkage includes means which clamps the base of the said bracket securely to a drum when the device is opened out ready for use.

Still further in accordance with the present invention a foot pedal actuated device for operating a drum stick or similar percussion instrument, comprises a bracket having upstanding posts supporting pivotally at their upper end a holder for the drum stick or the like, a base with a clamp member foldably connected thereto for clamping it to a drum and a link pivoted at one end to a clamp member and at its other end fitted with a support for the fulcrum of the foot pedal which is connected by a linkage to the holder for the drum stick or the like.

In order that the invention may be clearly understood and readily carried into effect, drawings are appended hereto illustrating an embodiment thereof, and wherein—

Figure 1 is a sectional side elevation view showing the foldable foot pedal device in the operative position the drum stick being shown in its impact position, and

Figure 2 is a sectional elevation showing the foot pedal collapsed for stowing in a container.

Referring to the drawings, of the usual pair of upstanding posts, only one indicated by the reference numeral 1 is shown, the two posts being integral with a base bar or plate 2 which is formed near its ends with two integral forwardly projecting lugs 3 which are engaged under the flange 4 of a drum 5. Journalled at its ends

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in ball bearings or bushes in the tops of the post is a horizontal spindle 6 midway between the ends of which is an integral substantially segmental forwardly radiating socket member 7 bored to receive the drum stick 8 which is held in position by a set screw 9 threaded at an inclination through a boss 10 until its leading end engages the drum stick in the bore of the member 7. The base 2 has a pair of lugs 11 on its upper face which receives a pivot pin 12 for a lever in the form of a clamp bar 13 formed between its end with a slightly larger part which is apertured to receive the pivot pin, one limb 13a of this clamp bar being directed towards the fulcrum bracket 14 of the foot pedal 15 and which in front elevation is of rectangular U form its vertical limbs receiving the fulcrum pin 16 of the pedal. The rear end of the clamp bar has a pair of depending lugs 13b to which is pivoted the front end of a link strap or bar 17, the rear end of which is fixed to or integral with the base of the fulcrum bracket 14. The fulcrum pin 16 passes through lugs 18 on the lower face of the foot pedal near its rear end, the foot pedal normally inclining upwardly at about an angle of 30° to the horizontal when the device is set up for use, the foot pedal, in the non-depressed position having its upper end located alongside nearer the upper end than to the lower end of the said upstanding posts and having connected across its end remote from its fulcrum and the socket member 7, which in effect is a crank of the spindle 6, a linkage constituted by a lower link 19 and a relatively shorter upper link 20 so that depression of the foot pedal pulls down the link and the crank arm through the angle required to the position shown in Figure 1 to cause the drum stick head to strike against the drum.

The said clamp bar 13 has threaded through it a set screw 21 at a position between its fulcrum and its end receiving the said strap, this set screw being screwed home against the said base of the post so as to press the front end of the clamp bar downwards against the inner periphery of the flange 4 of the drum as shown in Figure 1 so that with the lugs 3 of the base engaging under the wall of the drum the device is clamped by the action of the screw to the drum.

When it is required to collapse the device for stowage after removal from the drum, the said clamp lever is swung through approximately 90° and then slightly returned to the position shown in Figure 2 and this results in the pedal being drawn into a plane close to the said posts 1 after the fashion of a parallel link motion although, of course, the motion is not parallel having regard to the different lengths of the said strap 17 and the said link 19 and limb 13a.

A felt or rubber buffer 22 is fitted to the arcuate free edge of the segmental socket member 7 so that on return of the drum stick to the position shown in broken lines in Figure 1 the shorter link 20 will cushion against the buffer 22. This form of linkage (19, 20) provides for a very sensitive and smooth response to the depression of the pedal 15 as it obviates any tendency of the pedal or linkage to stick and also enables the usual return spring 23, which is connected across a lug 24 on the spindle 6 and an anchorage pin 25, to operate with minimum opposition.

I claim:

1. A foldable foot pedal device for actuating drum sticks or the like comprising a base bracket, a pair of spaced upstanding posts carried by said base bracket, a holder for the drum stick pivoted to and located between the top of said posts, a clamp bar pivoted between its ends to said base bracket, means to clamp said bar and base bracket to the peripheral band of the drum, a link pivoted at one end to said clamp bar, said bar and link being foldable one towards the other relatively to

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said base bracket, a foot pedal, a fulcrum member for one end of said pedal carried by the other end of said link, a link pivoted at one end to an end of said holder in advance of the pivotal connection of the holder to the posts, and a longer link connecting the other end of the aforesaid link which is connected to said holder to the end of the foot pedal remote from said support.

2. A foot pedal device for actuating drum sticks or the like according to claim 5 wherein the said clamp bar is a lever bar pivoted between its ends to the base bracket so that one end projects forwardly to grip over the band of the drum in opposition to an abutment on the said base bracket which engages under the said band, the rear end of said lever bar projecting in rear of the

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base bracket and pivotally receiving the front end of the first-mentioned link, the lever bar and bracket having co-operating means to clamp the lever bar in operative position to the flange of the drum, and the front end of the base bracket being shaped to permit the front end of said lever bar to project downwardly through the bracket to bring the rear end of the lever bar and the said first mentioned link close to the said posts.

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