

Jan. 24, 1967

J. A. ROCHON
MUSICAL INSTRUMENT STAND

3,299,765

Filed June 24, 1965

3 Sheets-Sheet 1

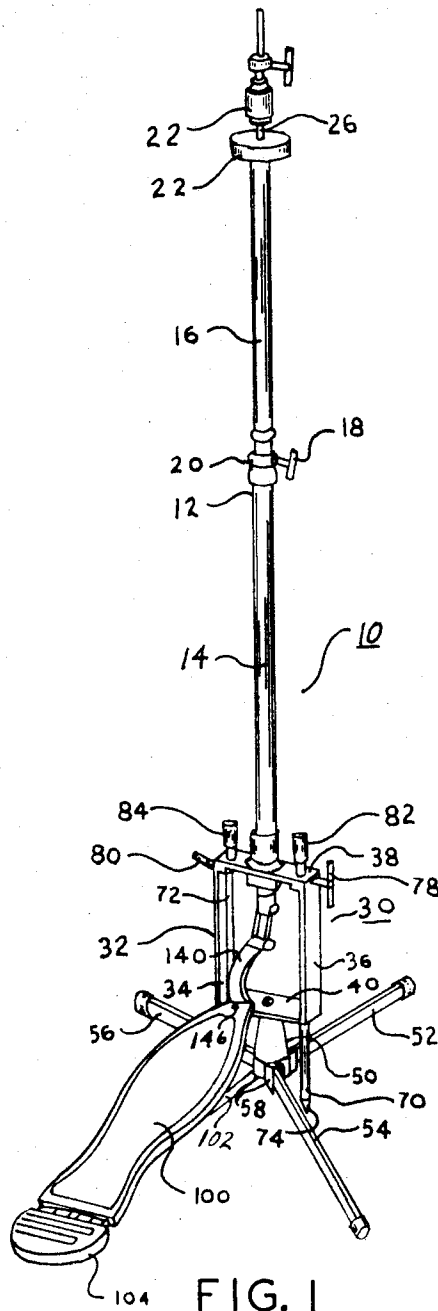


FIG. 1

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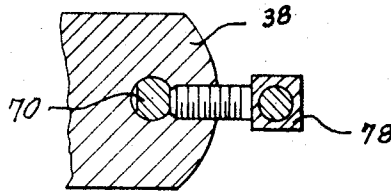


FIG. 5

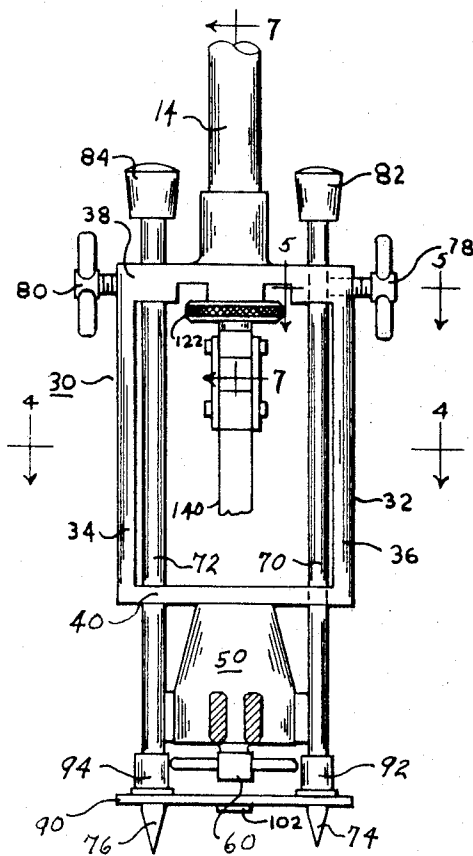


FIG. 2

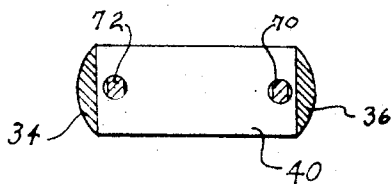


FIG. 4

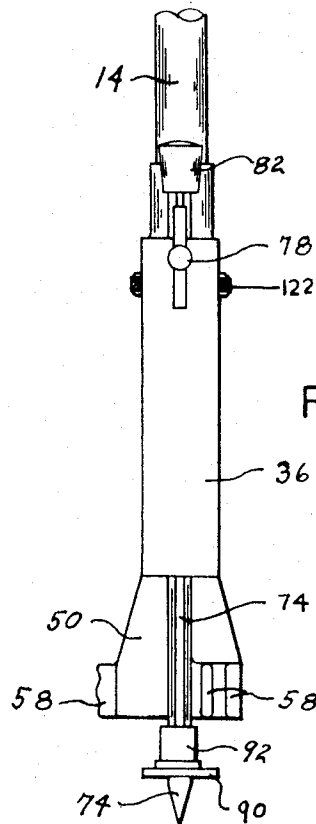


FIG. 3

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3 Sheets-Sheet 3

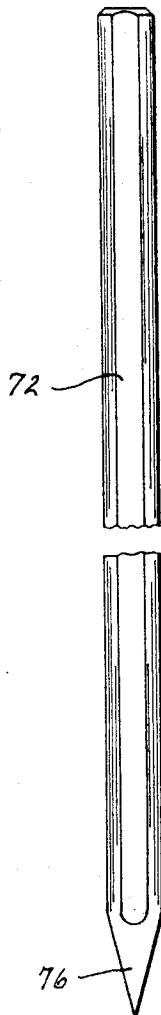


FIG. 6

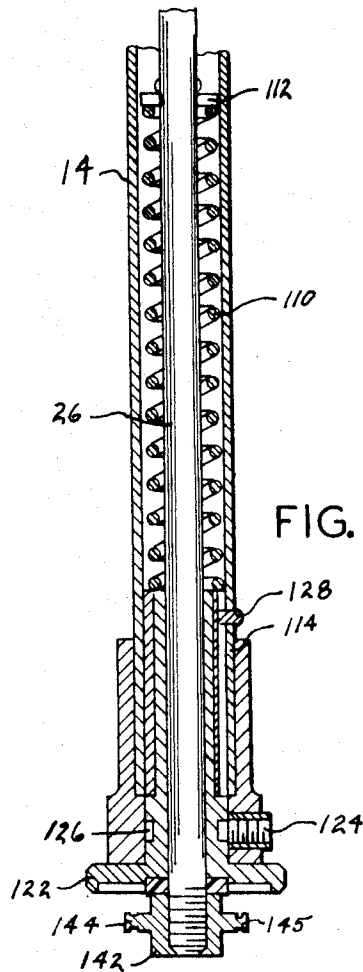


FIG. 7

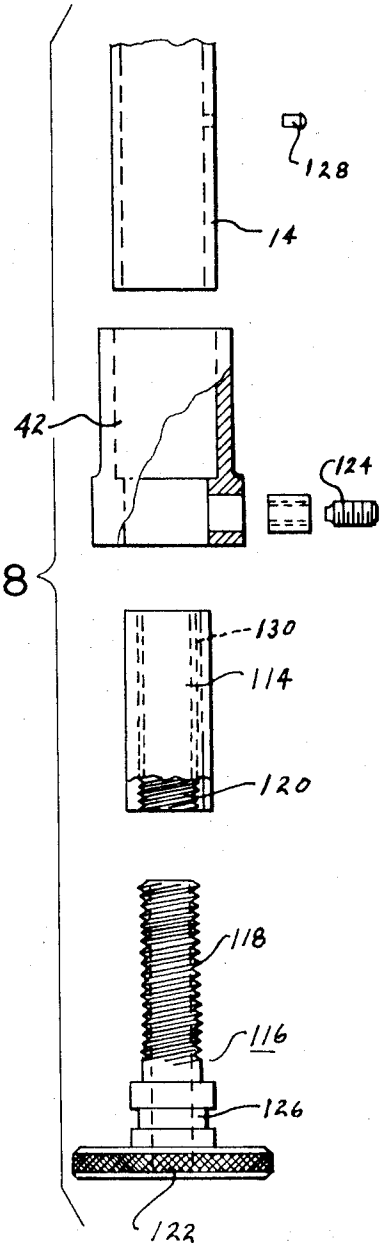


FIG. 8

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MUSICAL INSTRUMENT STAND
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Filed June 24, 1965, Ser. No. 466,741
9 Claims. (Cl. 84-422)

The present invention relates to a musical instrument stand and more particularly to a high-hat, sock pedal or the like on which a pair of cymbals are mounted.

In the band instrument field, an instrument stand referred to as a high-hat supports two cymbals, one stationary and the other movable to and from the stationary cymbal, operated by a pedal placed on the floor near the drummer. In the operation of the cymbals with a high-hat, the stand often creeps or otherwise moves from the desired position so that the drummer is constantly required to readjust the position of the stand to hold it in place while it is being played. Further, the high-hats are designed to operate various size cymbals, and in the conventional high-hats the movable cymbal is returned to its original position by a spring when the pressure on the pedal is released by the drummer's foot. The amount of spring force required to properly operate the return movement varies with the size and weight of the movable cymbal; consequently, it is desirable to vary the tension or compression on the return spring to obtain optimum performance for the cymbals. It is therefore one of the principal objects of the present invention to provide a relatively simple but reliable mechanism for anchoring the high-hat to the floor so that it will not creep or otherwise move accidentally while the cymbals mounted thereon are being played.

Another object of the invention is to provide an anchoring device for an instrument stand which gives lateral support on both sides of the pedal and thereby prevents rotation of the stand as well as forward creep, and which can be effectively adjusted to properly anchor the stand regardless of the unevenness of the floor or other supporting surface on which the stand is placed.

Still another object of the invention is to provide a foldable high-hat stand having a plurality of anchor devices which can easily be adjusted independently from one another and which will remain in proper adjusted position until they are intentionally released for folding or moving the stand.

A further object is to provide a high-hat with a means for adjusting the tension or compression of the spring return, which is completely enclosed in the shaft or body of the stand with the exception of an easily reached and manipulated means for making the adjustment, and which can be effectively and readily adjusted without disturbing the remaining adjustment of the stand.

Another object of the invention is to provide a stand of the aforesaid type which is sturdy and neat in appearance and has stability while it is being used, and which can readily be folded into a compact form for convenient carrying and storage.

Additional objects and advantages of the invention will become apparent from the following description and accompanying drawings, wherein:

FIGURE 1 is a perspective view of a stand embodying the present invention, showing the high-hat without the conventional cymbals supported and operated thereby;

FIGURE 2 is an enlarged elevational view of a portion of the operating mechanism of the present high-hat;

FIGURE 3 is a side elevational view of the operating mechanism shown in FIGURE 2;

FIGURE 4 is a horizontal cross sectional view of the operating mechanism shown in FIGURE 2, the section being taken on line 4-4 of the latter figure;

FIGURE 5 is an enlarged fragmentary cross sectional

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view of the operating mechanism, the section being taken on line 5-5 of FIGURE 2;

FIGURE 6 is an elevational view of a portion of the anchor mechanism forming a part of the present high-hat;

FIGURE 7 is an enlarged vertical cross sectional view of the spring adjustment mechanism, the section being taken on line 7-7 of FIGURE 2; and

FIGURE 8 is an exploded elevational and partial cross sectional view of the spring adjustment mechanism shown in Figure 7.

Referring more specifically to the drawings and to FIGURE 1 in particular, numeral 10 designates generally the present high-hat, having center shaft 12 constructed of a lower section 14 and an upper section 16, telescopically arranged with respect to lower section 14, and held in adjusted position by a thumb screw 18 threadedly received in and extending through a collar 20 at the upper end of lower section 14. Mounted on the upper end of the upper section is a collar 22 for receiving a lower stationary cymbal. The upper movable cymbal is mounted on fixture 24 which is supported and operated by a shaft 26 extending downwardly throughout the entire length of sections 16 and 14 of shaft 12. The details for adjusting the telescopic section 16 and the mechanism for holding the stationary and movable cymbals at 22 and 24 are not important to the present invention, and for the purpose of the present disclosure, these parts will be considered conventional and will not be described further herein.

The operating mechanism 30 consists of a rectangular frame 32 having two side members 34 and 36 and upper and lower cross members 38 and 40 secured rigidly at the upper and lower ends of side members 34 and 36. A lower end of center shaft 12 is supported on the frame by an upwardly extending hollow boss formed rigidly with cross member 38. The frame 32 is rigidly secured to a base 50 which in turn is connected to three legs 52, 54 and 56, the three legs being pivoted on respective lugs 58 secured to base 50 and being foldable into a compact arrangement along with the remainder of the structure. An adjustment nut 60 is mounted in the bottom of base 50 and releasably retains the legs in their extended position, as illustrated in FIGURE 1. The details and construction of the leg adjustment and holding mechanism will not be described in detail herein since the particular details are not considered essential to the present invention.

Two laterally spaced anchor means 70 and 72, consisting of vertical rods, are mounted in frame 32 and extend through holes in the upper and lower cross members 38 and 40, and are adjustable axially and vertically in the frame to permit the points 74 and 76 to firmly engage the floor or other supporting means. The two shafts are retained in adjusted position by screws 78 and 80 threadedly received in the opposite ends of cross member 38. The upper ends of the two rods 70 and 72 are provided with hand-grips 82 and 84, respectively, to assist in gripping the shafts when an adjustment is being made after the thumb screws 78 and 80 have been released. The two shafts extend downwardly through holes in a bar 90 to which collars 92 and 94 are secured, and are movable vertically therethrough. The bar is secured to an operating pedal 100 by a bar 102 rigidly secured to bar 90 and extending to the heel 104 of the pedal, thus holding the pedal in proper position with respect to base 50.

Mounted in operating mechanism 30 and in the lower end of section 14 of center shaft 12 is a spring adjustment mechanism for varying the force required to operate the movable cymbal. This mechanism consists of a coil spring 110 mounted around shaft 26 and abutting at its upper end across pin 112 seated in shaft 26. The lower end of the shaft abuts against a movable sleeve 114

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adapted to move vertically on shaft 26 and increase or decrease the compression on spring 110. The sleeve is moved by a screw 116 having a threaded portion 118 threadedly received in lower end 120 of sleeve 114, the screw being rotated in either direction by a hand-wheel 122 for raising or lowering the sleeve and thereby increasing or decreasing the compression on the spring, the wheel being held against axial movement in cross member 38 by a set screw 124 extending into an annular groove 126 in the screw. The sleeve is prevented from rotating by a pin 128 extending through the side wall of section 14 and seating in a longitudinal groove 130 in sleeve 114. In this arrangement shaft 26 extends through and reciprocates in spring 110, sleeve 114 and screw 116 as it is operated by pedal 100, the shaft being moved down by operation of the pedal and returned to its original position by spring 110 reacting between pin 112 and sleeve 114. The movable cymbal is operated through shaft 26 by a linkage 140 connected to a collar 142 threadedly secured to the lower end of shaft 26. The upper end of the linkage is pivotally connected to pins 144 and 145 and the lower end of the linkage is connected to the forward end of pedal 100 by a rivet 146.

In the operation of the present high-hat, the stand is anchored to the floor by merely loosening thumb screws 78 and 80 and pushing rods 76 and 72 downwardly until the points 74 and 75 engage and slightly penetrate the floor or other supporting structure. The thumb screws are then tightened, holding the shafts in adjusted position. The laterally spaced relationship of the two shafts to pedal 100 not only prevents the forward creeping of the stand, but also rotation of the stand to either side. The adjustment mechanism incorporated in the operating mechanism is adjusted to the optimum operating condition by rotation of wheel 122, thus increasing or decreasing the compression on spring 110 and thereby increasing or decreasing the force required to operate the movable cymbal mounted on the upper end of shaft 26. The adjustment will normally be made only when the cymbal size has been changed.

While only one embodiment of the present instrument stand has been described in detail herein, various changes and modifications may be made to satisfy requirements without departing from the scope of the invention.

I claim:

1. A high-hat stand having a stationary and a movable cymbal thereon, comprising a base, a plurality of legs pivotally connected to said base, a frame mounted on said base and having two vertically spaced side members and an upper and lower cross member connected to the upper and lower ends of said vertical members, a hollow vertical shaft connected at its lower end to said upper cross member of said frame, a reciprocating shaft in said hollow shaft for operating said movable cymbal, two rods having pointed lower ends mounted vertically in said frame in spaced relation to one another and movable therein, thumb screws for securing said rods in various adjusted positions, a bar having spaced holes therein for receiving the lower ends of said rods, a bar extending rearwardly from said first bar, a pedal mounted on the free end of said second bar, a compression spring disposed in said hollow shaft around said reciprocating shaft, a means forming an abutment for the upper end of said spring, a sleeve forming an abutment for the lower end of said spring, a screw extending upwardly through said upper cross member and being threadedly received in said sleeve for adjusting said sleeve upwardly and downwardly in said hollow shaft to vary the compression of said spring, and a linkage connecting said reciprocating shaft with said pedal.

2. A high-hat stand having a stationary and a movable cymbal thereon, comprising a base, a plurality of legs connected to said base, a frame mounted on said base, a hollow vertical shaft connected at its lower end to said frame, a reciprocating shaft in said hollow shaft for op-

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erating said movable cymbal, two rods having pointed lower ends mounted vertically in said frame in spaced relation to one another and movable therein, thumb screws for securing said rods in various adjusted positions, a bar having spaced holes therein for receiving the lower ends of said rods, a bar extending rearwardly from said first bar, a pedal mounted on the free end of said second bar, a compression spring disposed in said hollow shaft around said reciprocating shaft, a means forming an abutment for the upper end of said spring, a sleeve forming an abutment for the lower end of said spring, a screw extending upwardly through said frame and being threadedly received in said sleeve for adjusting said sleeve upwardly and downwardly in said hollow shaft to vary the compression of said spring, and a linkage connecting said reciprocating shaft with said pedal.

3. A high-hat stand having a stationary and a movable cymbal thereon, comprising a base, a plurality of legs connected to said base, a frame mounted on said base, a hollow vertical shaft connected at its lower end to said frame, a reciprocating shaft in said hollow shaft for operating said movable cymbal, two rods having pointed lower ends mounted vertically in said frame in spaced relation to one another and movable therein, means securing said rods in various adjusted positions, a pedal mounted on the free end of said second bar, a compression spring disposed in said hollow shaft around said reciprocating shaft, a means forming an abutment for the upper end of said spring, a sleeve forming an abutment for the lower end of said spring, a screw extending upwardly through said frame and being threadedly received in said sleeve for adjusting said sleeve upwardly and downwardly in said hollow shaft to vary the compression of said spring, and a linkage connecting said reciprocating shaft with said pedal.

4. A musical instrument stand having a stationary and a movable cymbal thereon, comprising a base, a frame mounted on said base, a hollow vertical shaft connected at its lower end to said frame, a reciprocating shaft in said hollow shaft for operating said movable cymbal, two rods mounted vertically in said frame in spaced relation to one another and movable therein, means securing said rods in various adjusted positions, a pedal mounted on the free end of said second bar, a spring disposed in said hollow shaft around said reciprocating shaft, a means forming an abutment for the upper end of said spring, a sleeve forming an abutment for the lower end of said spring, a screw threadedly received in said sleeve for adjusting said sleeve upwardly and downwardly in said hollow shaft to vary the compression of said spring.

5. A musical instrument stand having a stationary and a movable cymbal thereon, comprising a base, a plurality of legs pivotally connected to said base, a frame mounted on said base and having two vertically spaced side members and an upper and lower cross member connected to the upper and lower ends of said vertical members, a hollow vertical shaft connected at its lower end to said upper cross member of said frame, a reciprocating shaft in said hollow shaft for operating said movable cymbal, two rods having pointed lower ends mounted vertically in said frame in spaced relation to one another and movable therein, thumb screws for securing said rods in various adjusted positions, a bar having spaced holes therein for receiving the lower ends of said rods, a bar extending rearwardly from said first bar, a pedal mounted on the free end of said second bar, and a linkage connecting said reciprocating shaft with said pedal.

6. A musical instrument stand having a stationary and a movable cymbal thereon, comprising a base, a plurality of legs connected to said base, a frame mounted on said base, a hollow vertical shaft connected at its lower end to said frame, a reciprocating shaft in said hollow shaft for operating said movable cymbal, a pedal for moving said reciprocating shaft, two rods having pointed lower ends mounted vertically in said frame in spaced relation to one another and movable therein, means securing said rods in

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various adjusted positions, and a linkage connecting said reciprocating shaft with said pedal.

7. In a musical instrument stand having a stationary and a movable cymbal thereon: a base, a frame mounted on said base, two anchor rods mounted vertically in said frame in spaced relation to one another and movable therein, and means securing said rods in various adjusted vertical positions.

8. In a musical instrument stand having a stationary and a movable cymbal thereon: a base, a frame mounted on said base and having two vertically spaced side members and an upper and lower cross member connected to the upper and lower ends of said vertical members, a hollow vertical shaft connected at its lower end to said upper cross member of said frame, two rods having pointed lower ends mounted vertically in said frame in spaced relation to one another and movable therein, and thumb screws in said frame for securing said rods in various adjusted positions.

9. In a musical instrument stand having a stationary and a movable cymbal thereon: a base, a frame mounted on said base and having two vertically spaced side members

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and an upper and lower cross member connected to the upper and lower ends of said vertical members, a hollow vertical shaft connected at its lower end to said frame, a reciprocating shaft in said hollow shaft, a compression spring disposed in said hollow shaft around said reciprocating shaft, a means on said reciprocating shaft forming an abutment for the upper end of said spring, a sleeve around said reciprocating shaft forming an abutment for the lower end of said spring, and a screw extending upwardly through said upper cross member and being threadedly received in said sleeve for adjusting said sleeve upwardly and downwardly in said hollow shaft to vary the compression of said spring.

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