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J. MILLER
BASS VIOL STAND

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2 Sheets-Sheet 1

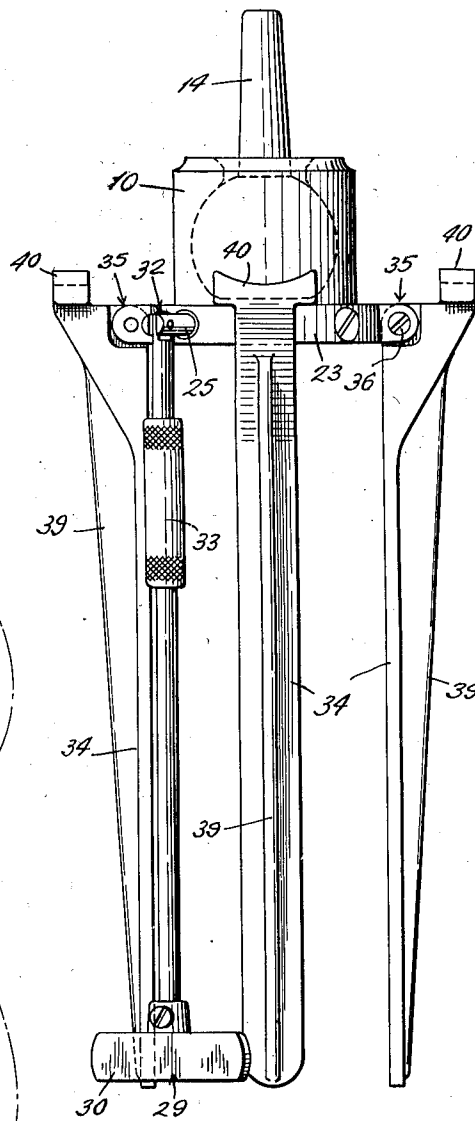
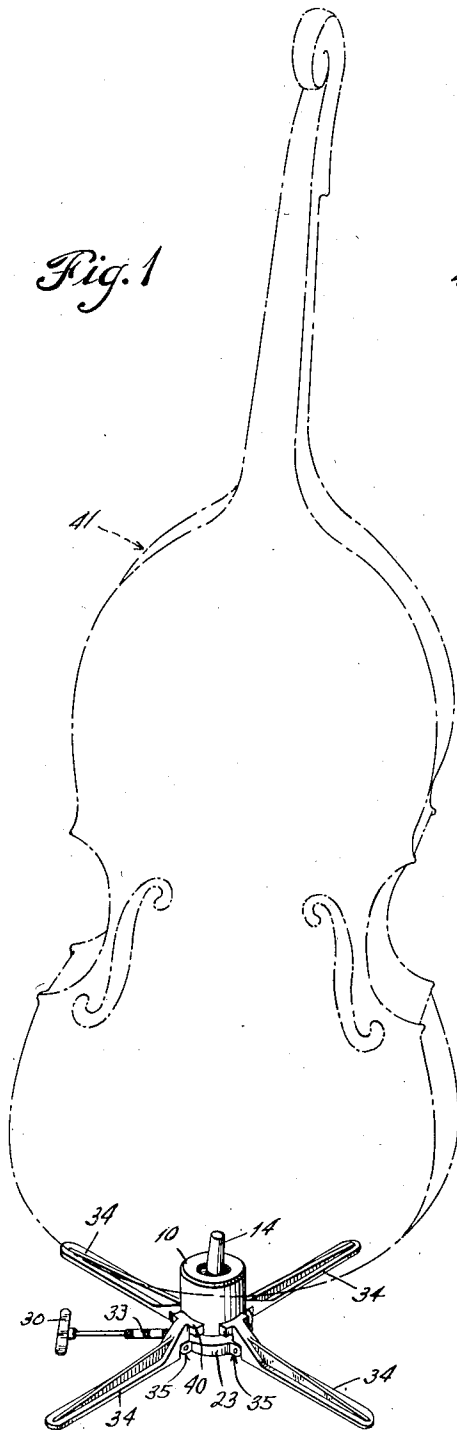


Fig. 2

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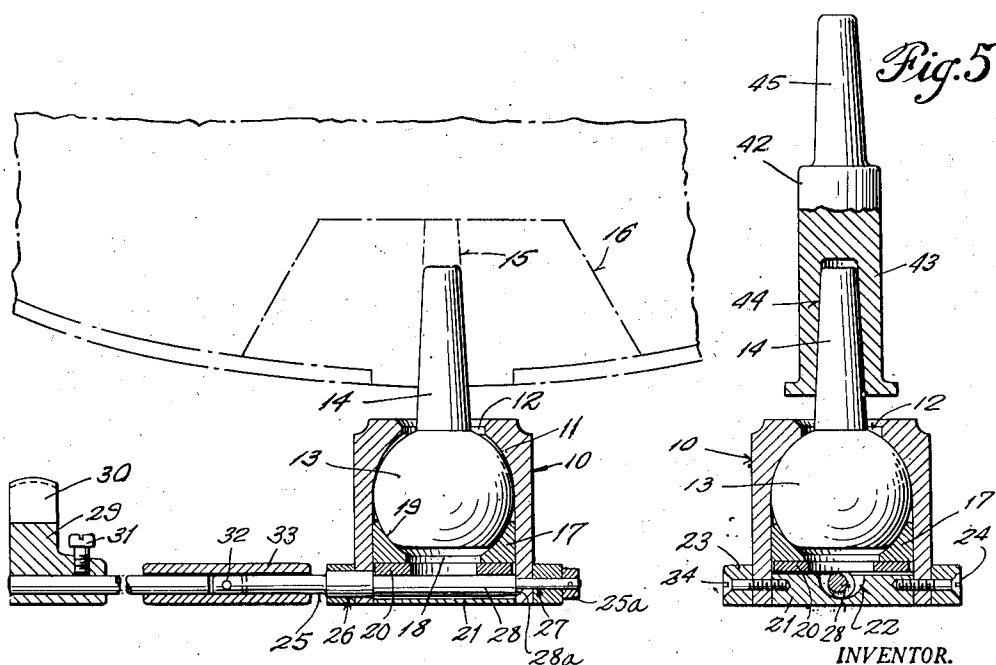
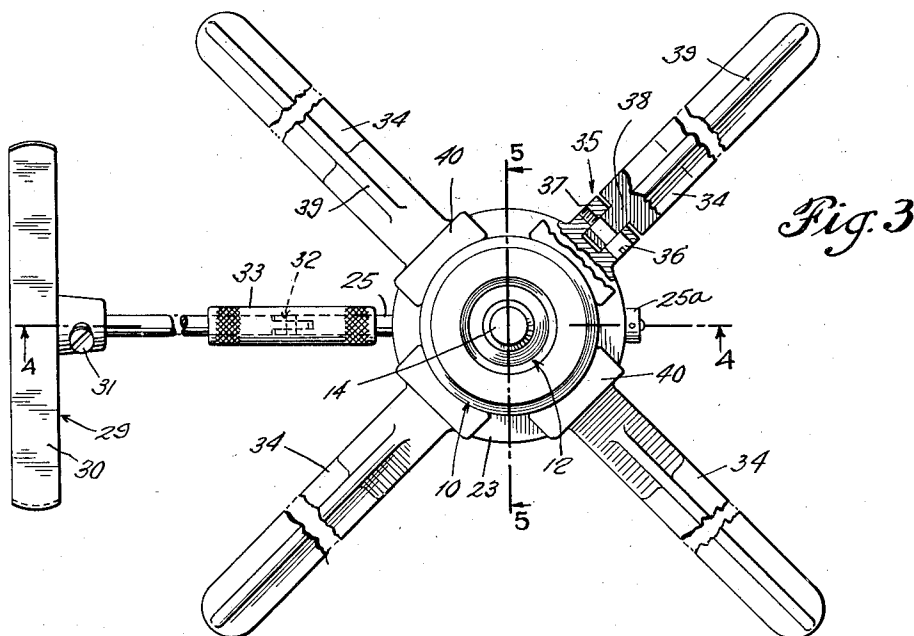
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BASS VIOL STAND

James Miller, South Norwalk, Conn.

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3 Claims. (Cl. 248—194)

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This invention relates to a stand for a bass viol, particularly a double bass.

Bass viols i. e. double basses and cellos are supported for playing by a rod set into a socket at the bottom of the viol and resting upon the floor, requiring that the bass viol be manually supported at the top in the desired inclined position by the player. In orchestras, during intermissions, stands are employed to hold the instrument when the player leaves his position. Such stands usually comprise a base with an upwardly extending rod having a pair of arms for embracing the double base at its bouts. Such stands are not suitable for holding the bass viol while it is being played, since the arms interfere with operation of the bow, and the tilting movement differs from that to which players are accustomed when the bass viol rests upon its support rod. It is often difficult for inexperienced players learning to play a bass viol to concentrate on fingering and manipulation of the bow, while at the same time supporting the instrument. Moreover, in dance orchestras, it is sometimes desired by the player to spin the bass viol while plucking the strings. When the instrument rests solely on the support rod, conventionally employed, there is danger, during such manipulation, of losing control of the instrument and of its falling, so as to damage the instrument or the surrounding furniture. Stands heretofore employed are not adapted or capable of supporting the bass viol against falling while it is played, of holding it in upright position while not in use, and of permitting it to tilt in the desired manner while it is being played.

It is accordingly an object of my invention to provide a firm and stable support for a bass viol, replacing the support rod normally employed, which can be readily and conveniently manipulated to support the bass viol in rigid upright or adjusted inclined position when not in use, or when the player desires to concentrate on fingering and bow manipulation without manually supporting the instrument, and which is likewise adapted to permit tilting of the instrument in the manner normally used in playing. It is also an object to provide a stand of the aforesaid type which permits spinning of the bass viol while at the same time eliminating the danger of its falling over. In connection with the foregoing objects it is also an object of the invention to provide a stand for a bass viol which can be readily set up for use, and conveniently collapsed to compact form for storage or transportation. Still another object is to provide means for modifying

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the stand so that it can be used either for a double bass or a cello.

A stand for a bass viol or double bass, in accordance with my invention, comprises a base adapted to rest upon the floor and extending sufficiently to provide a stable support for an instrument of the aforesaid type. The base comprises a central hub or housing having a projection or pin extending upward therefrom, which is shaped to fit the socket normally provided at the bottom of a double bass or cello for receiving the support rod normally employed therewith. The pin is mounted on the base at a universal joint so as to be movable from a vertical to limited inclined positions in any direction, preferably by means of a ball and socket joint having a limited range of movement, so that an instrument supported on the pin can be tilted to the desired extent in the customary manner during playing. My stand also comprises clamping means for holding the pin in any chosen position, such means comprising, for example, a releasable clamp operating upon the ball and socket joint at which the pin is mounted on the base, adapted to prevent movement of the pin on the housing. The clamp can be conveniently operated by a pedal.

In order to provide a stable support, the base comprises a plurality of feet which extend outward from the housing and pin, and rest upon the floor to prevent the stand and the instrument supported thereby from tipping over. The feet extend outward sufficiently to prevent the stand and instrument from tipping over when the pin is tilted to its limiting inclined position on the base. Preferably the feet as well as the pedal or other means for operating the clamp of the ball and socket joint are arranged to collapse together when the stand is lifted from the floor, so as to reduce the stand to a compact form, suitable for transportation or storage.

When used, the stand is placed on the floor with its feet extended and the bass viol is brought into engagement with the upwardly extending pin, the latter being inserted in the socket provided therefor at the bottom of the instrument. When the clamp means is released, it permits limited movement of the pin to vertical or inclined positions in any direction, in the same manner as when the instrument is supported on a conventional support rod. When the clamp means is operated to engage the pin, it holds it against movement in any direction and the instrument is supported in any desired upright or partly inclined position. When the clamping means is released, the instrument can be spun on its base without fear of its

falling over. Since no part of the stand extends above the bottom of the bass viol, the latter can be rigidly supported by the stand, and at the same time played without interference from the stand.

My invention will be more fully understood from the following description taken in connection with the accompanying drawing, wherein

Figure 1 is a perspective view of a stand in accordance with my invention, set up for use to support a double bass;

Fig. 2 is a side elevation of the stand, collapsed for transportation or storage;

Fig. 3 is a plan elevation, partly sectioned, of my stand set up for use;

Fig. 4 is a central vertical section of the stand along the line 4—4 in Fig. 3; and

Fig. 5 is a central vertical section along the line 5—5 of Fig. 3 and including in addition an adapter for using the stand with a cello.

Referring to the drawings, the double bass stand of my invention comprises a hollow hub or housing 10, the lower portion of which is cylindrical, and its interior surface 11 adjacent the upper end being spherical and terminating in a circular aperture 12. A spherical ball 13 having thereon a projection or pin 14 which projects upward through the aperture 12 is positioned within the housing 10, the spherical surface of the ball 13 at the base of pin 14 fitting against the spherical surface 11 on the interior of the housing 10 and forming a universal joint. The aperture 12 has a somewhat larger radius than the base of the pin 14, thus limiting motion of the ball and pin relative to the housing so that the pin 14 can tilt only to a limited extent in any direction.

The pin 14 is shaped so as to fit into the conventional aperture 15 in the block 16 normally provided at the bottom of a bass viol, in this case a double bass, for receiving the conventional support rod. Thus, as illustrated in Fig. 4, the pin 14 tapers from its base toward its tip and is adapted to fit tightly into the tapered aperture 15 in the block 16 of the double bass.

Means is provided for releasably clamping the ball 13 in any position in the socket constituted by the interior of the housing 10, to prevent movement of the ball relative to the housing. Such means comprises a clamp member 17 in the form of a ring having a central aperture 18 and an upwardly faced spherical surface 19 for engaging the lower portion of the surface of the ball 13. The clamp member 17 is positioned within the housing 10 below ball 13 and is supported by a washer 20. At its base, the housing 10 is closed by a plate or plug 21 having on its upper surface a transverse channel 22. A collar 23 surrounds the base of the housing 10, and the collar as well as the plate 21 are rigidly assembled with the housing 10, for example, by means of set screws 24.

Operating means for the clamp member 17 comprises a rod 25 extending through the channel 22 and journaled at 26 and 27 on opposite sides of housing 10 in the collar 23 and the walls of the housing 10. The rod comprises an eccentric portion 28 lying within the channel 22 and acting as a cam for raising and lowering the washer 20, upon rotation of rod 25. The rod 25 is retained in engagement with the housing 10 and ring 23 for example by means of a collar 25a abutting the outer surface of the collar 23 and a shoulder 28a on the adjacent end of its eccentric cam portion 28 abutting the inner surface of the housing 10. Upon rotation of the rod 25 in its

journals 26 and 27 the eccentric portion 28 acts as a cam forcing the washer 20 and clamp member 17 upward against the lower surface of the ball 13, and thus holding it against movement within the socket formed by the interior surface of the housing 10. A slight rotation of the rod in the opposite direction releases the pressure upon the washer 20 and clamp member 17 and permits the ball 13 to move again within the housing 10.

For operation of the clamping means, the rod 25 extends laterally outward from the housing 10, and carries on its outer end a T-shaped pedal 29, the cross bar 30 of the pedal 29 being raised, for example, about an inch above the level of the rod 25 or the floor. The pedal 29 is secured to the rod by a set screw 31 which permits adjustment of the pedal on the rod 25 in such position that the pedal moves the eccentric clamp operator 28 between clamping and releasing positions by depressing opposite ends of the cross bar 30 with the foot.

In order to permit rod 25 and the pedal 30 to be collapsed for transportation of the stand, the bar 29 comprises a hinge 32 and a sleeve 33 which can be slid over the hinge to hold the rod in rigid extended position for use, or when moved outward along the rod, to release the hinge 32 so that the rod 25 can collapse downward from the housing 10 to the position shown in Fig. 2.

Means for supporting the housing 10 and its associated mechanism on a floor or other support comprises a plurality of legs 34 secured to and extending radially outward from the collar 23 at the base of the housing 10. The legs 34 are connected to the collar 23 at hinges 35 comprising for example a bolt 36 extending through a bifurcated link 37 on the ring 23 and engaging a corresponding apertured link 38 on the adjacent inner end of each of the feet 34. The feet are thus adapted to collapse downward at the hinge 35 to the position shown in Fig. 2 when the stand is raised from the floor. On their upper surface, the feet 34 comprise a rib 39 terminating in a stop 40 which engages the outer surface of the housing 10 when the feet are extended in radial direction with their lower surfaces resting upon the floor. Thus, the feet 34 prevent tilting of the central housing of the stand when it is set up for use. When the stand is set up for use, the legs 34 extend outward from the pin 14 far enough to prevent the stand and an instrument supported thereby from tipping over when the pin is tilted to its limiting inclined position as determined by the periphery of the aperture 12 in housing 10.

The stand is normally transported in collapsed position as shown in Fig. 2, with the feet 34 folded downward at hinges 35 and rod 25 collapsed at hinge 32, the sleeve 33 being moved outward along the rod until it disengages the latter hinge. In this condition the stand constitutes a compact device, convenient for storage and transportation.

In order to set the stand up for use, the feet are moved to radial position as shown in Figs. 1 and 3 until the stops 40 engage the housing 10. Rod 25 is extended by straightening hinge 32 and locking it in extended condition by sliding the sleeve 33 over the hinge to the position as shown in Fig. 4. A bass viol, particularly a double bass 41, is placed upon the pin 14, the latter being inserted in the aperture 15 provided in block 16 at the bottom of the double bass. By depressing one end of the pedal 30, the eccentric portion

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28 of rod 25 is rotated downward from the position shown for example in Fig. 5 to the position shown in Fig. 4, thus releasing the washer 20 and clamp member 17 from engagement with the ball 13, so that the latter can move freely within the housing 10. When the clamp means is thus released the pin 14 can be moved to various tilted positions to an extent limited only by engagement of pin 14 with the periphery of the aperture 12 at the top of the housing. Thus the instrument can be manually tilted and rotated in the same manner as when supported on its conventional support rod for playing. However, the maximum tilting permitted by engagement of pin 14 with the edge of the aperture 12, and the extensive support provided by feet 34, prevents the instrument from falling over sideways, when released. Thus, it can be spun, if desired, while playing without fear of accidental damage to the instrument or surrounding objects.

By depressing the opposite end of the pedal 30 the eccentric portion 28 of rod 25 is raised to the position shown in Fig. 5 forcing washer 20 and clamp member 17 against the ball 13 and thus frictionally holding the pin 14 in any position which it may occupy. The instrument 41 can be thus supported rigidly in any desired position either when it is not in use, or for playing without necessity of support, no portion of the stand interfering with manipulation of the bow or the fingering.

It is sometimes desirable to provide means whereby the stand of this invention can be used interchangeably, not only for a double bass but also for a cello. This is accomplished quite simply by means of an adapter 42 having in its lower end 43, a socket 44 which fits pin 14 of the stand, and the upper portion of the adapter terminating in a pin 45 of a shape similar to pin 14, but adapted to fit an aperture conventionally provided at the bottom of a cello, similar to the aperture 15 in a block 16 of the double bass. The adapter 42 is simply placed on the pin 14, thus extending the latter to the desired height, and the pin 45 is inserted in the corresponding socket of the cello. In this way the stand can be used for either instrument interchangeably.

In order to collapse the stand for transportation, sleeve 33 is slid outward on rod 25 to disengage hinge 32 and the stand is raised from the floor by its pin 14 or housing 10 whereby the feet 34 as well as the outer portion of rod 25 collapse of themselves at their respective hinges to the condition shown in Fig. 2.

In order to lubricate the ball and socket joint of my stand, set screws 24 are withdrawn and plate 21 removed from the base of the housing 10, whereupon lubricant can be introduced through the central aperture of washer 20, and aperture 18 of clamp member 17.

Variations and modifications may be made within the scope of this invention and portions of the improvements may be used without others.

I claim:

1. A stand for a bass viol comprising a central portion including means for engaging the bottom of a bass viol to support the same on the stand; a plurality of feet extending outward from said central portion to provide a flat base, said feet being mounted on the central portion by hinges

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for collapsing downward therefrom; and stop means for preventing upward movement of the feet about their hinges beyond their fully extended position.

2. A stand for a bass viol comprising a supporting base; a pin projecting upward from said base for fitting into the socket at the bottom of a bass viol, said pin being mounted on said base at a ball and socket joint permitting rotation of the pin and limited tilting movement thereof from vertical position in any direction; means for clamping said ball and socket joint to prevent movement of the pin relative to said base in any adjusted position; an operator for said clamping means and a plurality of feet extending laterally outward from said base to provide a flat extension of said base, said operator and said feet including hinges for collapsing downward when the base is lifted from a supporting surface; stop means for preventing upward movement of the feet about their hinges beyond fully extended position; and lock means for holding the hinge of said operator in fully extended position.

3. A stand for a bass viol comprising a housing; a plurality of feet extending from the housing for supporting the same in upright position on a supporting surface; a pin projecting upward through an aperture in the housing and fitting into the socket at the bottom of a bass viol; a ball on the base of the pin within the housing and forming with the latter a ball and socket joint, the periphery of said aperture limiting the tilting movement of the pin at said ball and socket joint; clamp means within the housing comprising a clamping member for engaging the undersurface of said ball; a rod extending transversely through the housing having thereon a cam for moving said clamping member between lowered released position and raised clamping position upon rotation of the rod in opposite directions, said operating rod extending laterally outward from the housing and having a pedal on its outer end for rocking said cam between clamping and releasing positions; a hinge intermediate the ends of said rod for collapsing its outer end downwardly from said housing; a sleeve on said rod, slidable over said hinge for retaining the same in extended position; and said feet including hinges at which they are likewise collapsible downward from extended position, and stop means for preventing upward movement of the feet beyond said extended position.

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