MUSICAL INSTRUMENT STRING WINDER

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1 Claim. (Cl. 84—458)

This invention relates to a novel crank for engaging the head of a string winding key or peg and by means of which the peg or key may be rapidly revolved for winding a string thereon to take up slack in the string to a tuning position.

More particularly, it is an aim of the present invention to provide a string winder or crank to be used for taking up slack rapidly when a new string is applied to instruments such as violins, guitars, mandolins, banjos, lutes and the like, to thereby eliminate the delay and loss of time normally involved in replacing a broken string on a musical instrument.

A further object of the invention is to provide a string winder of extremely simple construction which may be very economically manufactured and sold and which is small and compact so that it may be readily carried in a musical instrument case or in a garment pocket, readily available for use when needed.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a fragmentary top plan view of a portion of the neck of a strung musical instrument and showing the string winder in end elevation applied to the head of a key or peg thereof;

Figure 2 is an enlarged sectional view, partly in elevation, taken substantially along a plane as indicated by the line 2—2 of Figure 1, and

Figure 3 is a front elevational view of the string winder, removed from the peg or key, and looking from left to right of Figure 2.

Referring more specifically to the drawing, the string winder in its entirety and comprising the invention is designated generally 5 and includes a lever 6. The socket member 7 is formed integral with one end of the lever 6 and projects outwardly from one side thereof. The socket member 7 is provided with a recess 8 which opens outwardly in a direction away from the socket 7. The recess 8 is relatively long in a direction longitudinally of the lever 6 and relatively narrow in a direction transversely of said lever, as illustrated in Figure 3, and is preferably of a depth substantially equal to the thickness of the socket 7 as measured in a direction perpendicular to the lever 6. In its preferred embodiment as illustrated in the drawing, the socket 7 is of a length, measured longitudinally of the lever 6, equal to approximately one-half the length of said lever.

The lever 6, adjacent the end thereof disposed remote from the socket 7, is provided with an opening 9 having a countersink or flared end 10 opening outwardly of the same size of the lever 6 from which the socket 7 projects.

An elongated handle 11 which is preferably of circular cross section has an enlarged or flared inner end 12 defining a flat face 13. A hollow stem 14 extends perpendicularly from the face 13 and is axially disposed relative to the handle 11 and has an internally beveled open end 15, as seen in Figure 2. The handle 11 is provided with an axial recess 16 forming a continuation of the inner end of the hollow stem 14 and which recess 16 and the interior of the hollow stem 14 are threaded.

The stem 14 is of a size to turnably fit in the opening 9 and is of a length less than the thickness of the lever 6. The stem 14 is disposed in the opening 9 so that the handle 11 extends perpendicularly from the lever 6 in the opposite direction to the socket 7. A screw 17 is threaded into the bore of the stem 14 and into the recess 16 and has a flared head 18 which seats in the countersink 10 and against the internally flared end of the recess 14, so that the outer face of the screw head 18 is disposed substantially flush with the face of the lever 6 from which the socket 7 projects. When thus disposed, the beveled inner side of the screw head 18 turnably engages the countersink 10 to permit the handle 11 to swivel or rotate relative to the lever 6. The head 18 by engagement with the surface 15 of the stem 14 is prevented from being tightened sufficiently so that the handle 11 cannot swivel freely relative to the lever 6.

A portion of the neck 19 of a strung musical instrument is illustrated in Figure 1. Two keys or pegs 20 and 21 are shown extending transversely through the neck 19 and, as is conventional, said keys or pegs are respectively mounted in the neck portion 19. Each key or peg 20 and 21 has an outer end which is flattened or enlarged to provide a head 22, as is conventional. Complementary ends of strings 23 and 24 are wound on the keys or pegs 20 and 21, respectively, in a conventional manner.

In replacing a broken string, after the new string has been attached to the key or peg, considerable time is required to turn the key or peg in the conventional manner, by gripping the head between the thumb and index finger, sufficiently to draw the new string taut so that it can be turned by a further slight turning of the key and tensioning of the string. However, with the string winder or crank 5, when a new string is applied and one end, not shown, is anchored, and the other end is anchored to a key or peg such as the key 20, the winder 5 may be utilized by engaging the socket 7 over the key head 22, so that said key head is held nonrotatably in the recess 8. The crank handle 11 can then be grasped for rapidly revolving the key 20 to tension the string 23 to a tuning tautness from which by a further slight turning of the key 20, either with the crank 5 or with said crank removed and by gripping the head 22 between the thumb and finger in a conventional manner, the string 23 can be tuned. Thus, with the use of the crank or winder 5 a broken string can be replaced, tensioned and tuned much more rapidly than is possible where the key is manually turned by the fingers gripping the key head.

The winder 5 may be formed of any suitable material and is preferably molded of two plastic parts, the part 6, 7 and the handle 11 and which parts are detachably connected by the metal screw 17.

Obviously, the winder or crank 5 may be made in various sizes and the size of the recess 8 may obviously be varied to accommodate key heads of different sizes.

Various other modifications and changes are likewise contemplated and may be resorted to, without departing from the spirit or scope of the invention as hereinafter defined by the appended claim.

We claim as our invention:

A musical instrument string winder comprising an elongated lever, a socket projecting from one side of one end of the lever, said socket having a key, a key recess opening outwardly thereof in a direction away from said lever and adapted to nonrotatably receive therein the head of a musical instrument string winding key to be rotated by the winder, a handle projecting from the opposite side and adjacent the opposite end of said lever and in the opposite direction relative to said socket, and
fastening means connecting said handle to the lever, said socket being a length substantially equal to one-half the length of said lever, said socket recess being elongated in a direction longitudinally of the socket and lever, said lever being provided with an opening disposed remote from the socket, said handle having a hollow stem projecting from an inner end thereof and turnably engaging in said opening, said fastening means comprising a screw threadedly engaging axially in the handle and having a head countersunk in an end of the lever opening and abutting an outer end of said stem for swivelly mounting the handle on the lever.

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