

CAPO

This application is a continuation-in-part application of application Ser. No. 81,396, filed Oct. 16, 1970 now U.S. Pat. No. 3,680,427.

BACKGROUND OF THE INVENTION

The invention relates to tuning devices and more particularly to an improved CAPO for use in changing the key of string instruments, such as guitars and the like, which include fingerboards having transversely oriented frets traversed by substantially parallel strings.

While many different techniques are employed in tuning string instruments, such as guitars and the like, the most commonly employed technique involves the steps of tensioning a first string in a manner such that when plucked a selected tone corresponding to a tone derived from another instrument is established, thereafter, each of the remaining strings is tuned in sequence.

When attempting to change the key of a string instrument, it is common practice to simultaneously fret or stop all of the strings at a particular location along the fingerboard for uniformly varying the pitch of the strings, whereby the key of the instrument is changed. In practice, a CAPO has often been employed for this purpose.

It is apparent, of course, that unless a musician is familiar with the string instrument and/or is capable of matching tones derived by plucking the strings of a given instrument with a memorized standard, it is difficult to satisfactorily employ a CAPO. Accordingly, it can be appreciated that one having little skill in tuning the instruments encounters substantial difficulty in performing this rather simple but quite difficult technique.

Therefore, it is apparent that there currently exists a need for a practical, simple and economic device for use in tuning string instruments which overcome the inadequacies of similar devices heretofore provided to be employed by beginning students in changing the key of a given string instrument.

OBJECTS AND SUMMARY OF THE INVENTION

It is an object of the instant invention to provide an improved CAPO having affixed thereto a pitch pipe for use in changing the key of string instruments.

It is another object of the instant invention to provide an improved device for use in uniformly varying the pitch of all strings of a string instrument to a selected tonal standard.

It is another object to provide a simplified and economic device for use in tuning instruments of the type having a fingerboard including a transversely oriented fret traversed by a plurality of instrument strings.

It is another object to provide a fully integrated device of an economic and practical construction which can readily be employed by a beginning student in changing the key of string instruments.

These and other objects and advantages of the instant invention are achieved through the use of a simplified CAPO bar including a strap for affixing the bar to the neck of a guitar or similar instrument and having integrated therewith a pitch pipe for establishing a selected tonal standard to which the instrument is to be tuned.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a string instrument illustrating an operative environment of the device of the instant invention.

FIG. 2 is a fragmentary, perspective view, taken on an enlarged scale of the device shown in FIG. 1.

FIG. 3 is a perspective view of another form of the device which includes a cylindrical surface.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawing wherein like reference characters designate like or corresponding parts throughout the several views, there is shown in FIG. 1 a string instrument 10 having a neck 12. Upon the neck 12 there is a fingerboard 14 across which a plurality of strings 16 are extended. These strings are supported between a common bridge 18 and a plurality of keys 20. Since the purpose and function of string instruments are well known, a detailed description of the instrument 10 is omitted in the interest of brevity.

As illustrated, the device which embodies the principles of the instant invention generally is designated 22. This device includes an elongated bar 24 which, as shown, is provided with a plurality of orthogonally related, planar surfaces 26. In operation, these surfaces are seated in stopping engagement with the plurality of strings 16 for varying the pitch of the strings.

Extending from each of the opposite ends of the bar 24 is a pivot pin 28 which, in practice, is employed in mounting the bar 24 in a seated engagement with the strings 16. Each of the pins 28 is configured to be received within an eyelet 29 formed in a supporting strap 30, which is formed of a suitable resilient or elastic material. Preferably, the strap 30 permanently is coupled at one end thereof to the bar 24 while the distal end of the strap 30 is free to be trained about the neck of the instrument for securing the bar 24 in an operation position relative to the neck. Due to the resiliency of the strap 30 the bar 24 is releasably secured in place and can readily be repositioned.

Integrally related with the bar 24 is a pitch pipe 32. The pitch pipe 32 is fixed to the bar 24 by inserting it through an eye 34 formed at the distal end of one of the pins 28. The pitch pipe 32 is fixed within the eye 34 in any suitable manner such as by soldering and the like. As shown, the eye also functions as a stop for permanently coupling the strap 30 to the bar 24.

As a practical matter, the pitch pipe 32 is of a commercially available design, and includes therein a reed, not shown, which when agitated by blowing produces a sound employable as a tonal standard for tuning the instrument.

While the bar 24, having planar surfaces 26, as illustrated in FIG. 3, functions quite satisfactorily for its intended purpose, as a practical matter, it has been found that the bar 24, having a cylindrical surface 36, can be employed equally as well. Accordingly, it is to be understood that where so desired, a CAPO bar having a cylindrical surface, as shown in FIG. 3, can readily be employed.

In order to employ the device 22, a student attaches the CAPO to the neck of an instrument, through the use of the strap 30 and the pins 28, by passing one of

the eyelets 29 over one of the pins while the opposite end thereof is supported by the other pin 28. As a practical matter, the strap 30 preferably is attached to the bar 24 during fabrication by passing the pin 28 having the eye 34 formed thereon through one of the eyelets 29 during fabrication.

Once the device 22 is attached to the neck of a selected instrument, the student need only blow into the pitch pipe 32 for deriving a tonal standard to which the key of the instrument is to be changed. Upon plucking a selected string of the instrument, preferably the uppermost E string, it is possible for the student to match the thus derived tone with the tonal standard provided by the pitch pipe in order to determine whether or not the key of the instrument has properly been varied to a selected key, through a positioning of the bar 24 relative to the fingerboard 14. In the event repositioning of the bar 24 is desired, the student merely elongates the strap 30 and repositions the bar 24 along the neck until the key of the instrument has been varied to the standard established by the pitch pipe.

In view of the foregoing, it should readily be apparent that the present invention provides a simple, economic, and readily accessible device which can be employed in changing the key of a string instrument by one possessing minimal musical skills.

Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the illustrative details disclosed.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An improved CAPO comprising a substantially rigid body having a length sufficient to extend into simultaneous engagement with a plurality of substantially parallel strings of a string instrument, means for releasably affixing the body to said instrument, and a pitch pipe integral with said body.

2. The CAPO of claim 1 wherein the means for releasably affixing the body to said instrument includes a resilient strap affixed at one end thereof to one end of said body, means defining in said strap a plurality of eyes, and a protrusion extended from the other end of said body for receiving one of said eyes.

3. The CAPO of claim 2 wherein said pitch pipe includes a reed.

4. The CAPO of claim 3 wherein said body is of a cylindrical configuration.

5. The CAPO of claim 4 wherein said body includes a planar surface extended the length thereof.

6. The CAPO of claim 5 wherein said body includes means oppositely extended from and coaxially related to said protrusion for integrating said pitch pipe with said body.

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