March 31, 1925. 1,531,458

G. A. STAPLES

SUPPLEMENTAL TUNING DEVICE FOR VIOLINS

Filed March 20, 1924

Fig. 1.

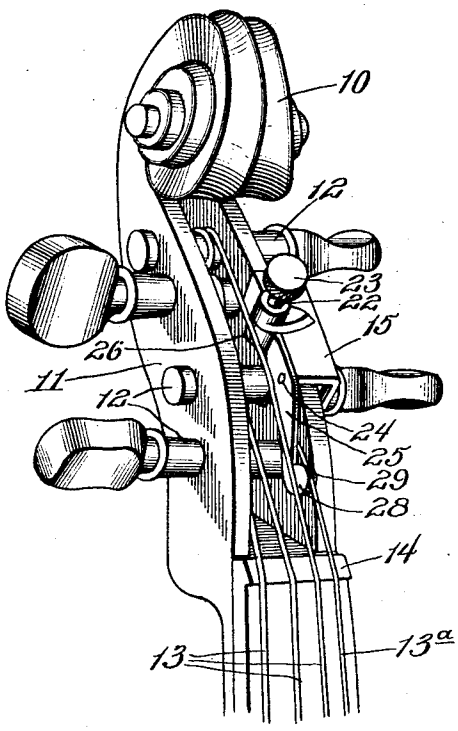


Fig. 2.

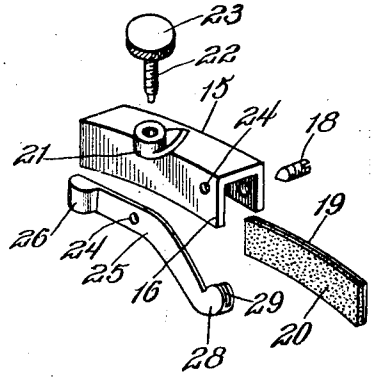


Fig. 3.

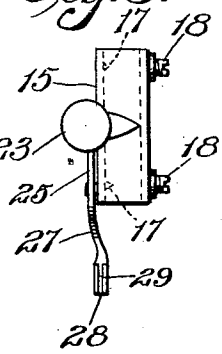


Fig. 4.

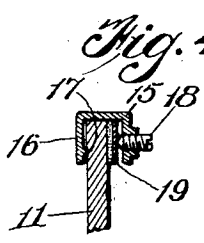
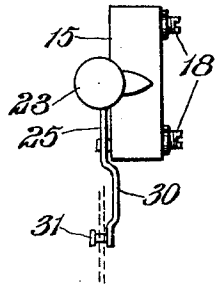


Fig. 5.



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Patented Mar. 31, 1925. 1,531,458

UNITED STATES PATENT OFFICE.

GEORGE A. STAPLES, OF NASHUA, NEW HAMPSHIRE.

SUPPLEMENTAL TUNING DEVICE FOR VIOLINS.

Application filed March 20, 1924. Serial No. 700,627.

To all whom it may concern:

Be it known that I, GEORGE A. STAPLES, a citizen of the United States, residing at Nashua, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Supplemental Tuning Devices for Violins, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to supplemental tuning devices for violins and more particularly to a supplemental tuning device for the E string thereof. As well known to those familiar with the art, the violin E string is extremely difficult to adjust during playing, the peg controlling tuning of this string being located in such a position upon the scroll that it is not only difficult but practically impossible to obtain an accurate adjustment thereof during playing. Since this string is the one which is in most frequent need of adjustment, being the lightest and the one most frequently used, it is desirous that some supplemental means be provided for tuning the string so that this adjustment may be effected during playing. This invention accordingly contemplates the provision of a device which is readily accessible by the left or supporting hand of the player for adjustment of the string during playing.

A further object of the invention is to provide a device of this character which may be applied to the violin without marring the delicate finish thereof and which may be attached to a violin with the greatest ease and rapidity and without altering the construction thereof.

A still further object of the invention is to provide a device of this character which may be very cheaply produced and which will not detract from the appearance of the instrument.

These and other objects I attain by the construction shown in the accompanying drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a perspective view showing a supplemental tuning device constructed in accordance with my invention applied to a violin;

Figure 2 is a perspective view showing the various parts of the device, the device being removed and the parts separated for clarity in illustration;

Figure 3 is a plan view of the device;

Figure 4 is a transverse sectional view therethrough;

Figure 5 is a plan view showing a modified construction of the lever 25.

Referring now more particularly to the drawings, the numeral 10 indicates the scroll of a violin including the usual peg box 11 through the side walls of which are extended pegs 12 upon which are wound the ends of strings 13 which at one end of the box pass over the nut 14 of the instrument. The E string 13ª of a violin, whether the player be right or left-handed, is always disposed adjacent one wall of the peg box 11 and upon that peg having its head adjacent this wall, and most nearly adjacent the nut 14.

In accordance with my invention I provide a support 15 U-shaped in cross section adapted to straddle this wall of the peg box, the support being curved longitudinally to conform to the longitudinal curvature of the upper edge of the wall so that it fits securely thereagainst, one arm of the support, indicated at 16, being that arm which is disposed against the inner face of the peg box wall upon which the support is mounted, having projecting inwardly therefrom pins 17 for engagement in this wall of the peg box. The other arm of the support has adjustably directed therethrough threaded elements 18 adapted to abut against a removable thrust plate 19 disposed between this arm of the support and the adjacent face of the wall of the peg box. That face of the thrust plate 19 which engages against the wall of the peg box has preferably secured thereto a felted surfacing 20 so that the pressure placed by this plate upon the wall of the peg box will not mar the same.

The upper wall of the support has extending inwardly therefrom a flange 21 which extends beyond the outer face of the inner arm 16 and has directed therethrough the threaded stem 22 of a knurled adjusting nut 23. To that end of the wall 16 next adjacent the nut 14 when the support is in applied position is pivoted, as at 24, a lever 25 one end of which has an enlarged portion 26 underlying the stem 22 for engagement thereby and the opposite end of which is offset, as indicated at 27, and provided with

a head 28 having in its upper surface a string receiving notch 29.

In the use of the device in applying the same to a violin care is taken that in the application of the support the lever 25 extends at that side of the E string remote from the adjacent peg box wall and that the groove 29 of the head 28 receives the E string approximately one-half way between the peg upon which the E string is secured and this nut. Once properly positioned the support is secured in position and this support is of such size that it does not in any way interfere with normal tuning of the E string by the peg. With this device in position rough tuning can be accomplished by the peg and a finer adjustment by varying the position of the adjusting screw 23. It will be obvious to those familiar with the handling of a violin that the adjusting nut 23 being located at the upper surface of the scroll is much more readily accessible to the supporting hand, by means of which tuning is accomplished during actual playing, than the E string peg and in fact that it will be as readily accessible as the D and G string pegs which are very readily tuned during playing.

While I have above referred to the head end of the lever as extending at that side of the E string remote from the peg box wall upon which the device is mounted, it will, of course, be obvious that if desired this lever could extend at the opposite side of the string, this being made possible by constructing the lever as shown in Figure 5, the lever having intermediate its ends an offset portion 30 providing a space for the passage of the string. It will also be obvious that while I have above referred to a grooved head as a means for supporting and guiding the string, other means may be provided as, for example, the peg 31 carried by the end of the lever in the figure above referred to.

It will furthermore be obvious that the application of the device to a violin will not injure the appearance of the same in any way and that the device may be very readily and cheaply produced. Since the construction hereinbefore set forth is capable of a certain range of change and modification without departing from the spirit of my invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. In a supplemental tuning device for violins and in combination with a violin having the usual scroll including the peg box and pegs for controlling the positions of the strings, a support mounted upon the upper edge of one wall of the peg box, a lever pivoted to the support and extending at the opposite side of a string of the instrument from the wall upon which the support is mounted, said lever having an offset end provided with a head engaging the string between the nut and peg to which the string is secured, and means for adjusting the position of the lever upon the support.

2. In a supplemental tuning device for violins and in combination with a violin having the usual scroll including the peg box and pegs for controlling the positions of the strings, a support mounted upon the upper edge of one wall of the peg box, a lever pivoted to the support and extending at the opposite side of a string of the instrument from the wall upon which the support is mounted, said lever having an offset end provided with a head engaging the string between the nut and peg to which the string is secured, and means for adjusting the position of the lever upon the support, said head having a groove therein receiving the string.

3. In a supplemental tuning device for violins and in combination with a violin having the usual scroll including the peg box and pegs for controlling the positions of the strings, a support mounted upon the upper edge of one wall of the peg box, a lever pivoted to the support and extending at the opposite side of a string of the instrument from the wall upon which the support is mounted, said lever having an offset end provided with a head engaging the string between the nut and peg to which the string is secured, means for adjusting the position of the lever upon the support, said support comprising a member U-shaped in cross section to straddle the peg box wall and longitudinally curved to conform to the curvature of the upper edge of the peg box wall, means upon the inner arm of the support for engaging the inner face of the peg box wall upon which the support is mounted, a thrust plate arranged between the opposite wall of the support and the outer face of the peg box wall, and means extending through the last named wall for moving the thrust plate firmly into engagement with the peg box wall.

4. In a supplemental tuning device for violins and in combination with a violin having the usual scroll including the peg box and pegs for controlling the position of the strings, a support mounted upon the upper edge of one wall of the peg box, a lever pivoted to the support and extending adjacent the string of the instrument to be tuned, said lever having at its end a string engaging portion engaging the string midway between the nut and the peg to which the string is secured, and means for adjusting the position of the lever upon the support.

In testimony whereof I hereunto affix my signature.

GEORGE A. STAPLES.