Feb. 21, 1928. 1,660,267

G. HUGHES

STRING TENSIONING DEVICE FOR VIOLINS

Filed May 26, 1926

Fig. 1.

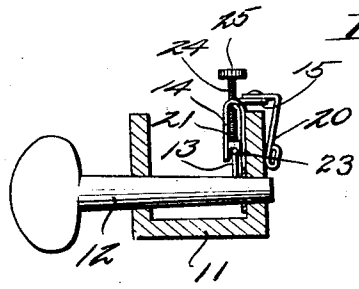


Fig. 2.

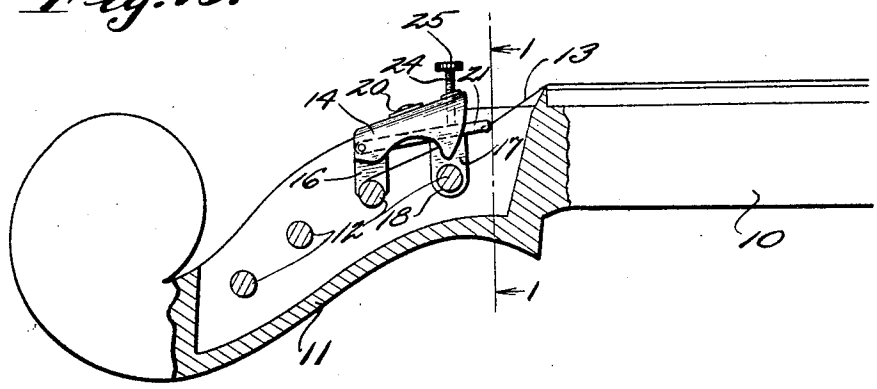
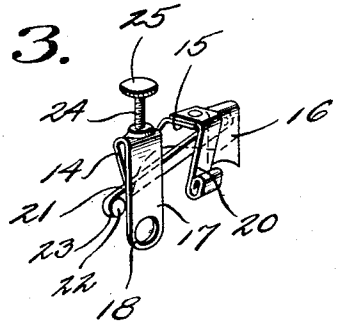


Fig. 3.



Grant Hughes

INVENTOR

BY Victor J. Evans

ATTORNEY

R. E. Wise.

WITNESS:

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GRANT HUGHES, OF WARWICK, ALBERTA, CANADA.

STRING-TENSIONING DEVICE FOR VIOLINS.

Application filed May 26, 1926. Serial No. 111,839.

In stringed musical instruments, wherein steel strings are used, it is difficult to properly tune the instruments, as there is very little stretch or give to the steel strings.

It is therefore the object of the present invention to provide an article of manufacture, in the nature of an attachment for such instruments, and by means of which a very minute adjustment of the strings can be obtained, after the strings have been first adjusted in the ordinary well known manner.

In carrying out the invention I contemplate the provision of a string tensioning device for musical instruments, which is designed to be quickly attached to or removed from the instrument as the occasion may require, and held fixed relatively to the instrument when in position for use.

Another object of the invention resides in the provision of a string tensioning device adapted to be held in position upon the instrument by one of the keys usually employed for adjusting or tensioning the string, the device embodying a string engaging element which can be very easily adjusted to obtain the desired minute adjustment of the particular string.

The nature and advantages of the invention will be better understood when the following detail description is read in connection with the accompanying drawing, the invention residing in the construction, combination and arrangement of parts as claimed.

In the drawing forming part of this application like numerals of reference indicate similar parts in the several views and wherein:

Figure 1 is a sectional view taken on line 1—1 of Figure 2.

Figure 2 is a fragmentary view partly in section of a stringed instrument showing the application of the invention.

Figure 3 is a perspective view of the invention.

Referring to the drawing in detail 10 indicates generally a stringed instrument, such as a violin or the like, while 11 represents the scroll which is of channel-like formation in cross section for a portion of its length, as indicated in Figure 1. The keys or pegs 12 are rotatably supported in the usual manner, and employed to tension the strings 13 of the instrument in the usual way, each peg or key 12 having a string 13 associated therewith for this purpose.

As above stated, when steel strings are used on instruments of the character mentioned, it is difficult to obtain a fine adjustment thereof, because said strings have practically little or no stretch to them, and when the peg or key is turned to tune up the pitch the slightest degree, the string is ordinarily under such conditions tuned up to a half a tone or more.

To obviate this difficulty I have devised a string tensioning device designed to be quickly attached to the instrument, and positioned thereon in a manner whereby a very minute adjustment of the string can be readily obtained. The device embodies a frame designed to straddle one side of the scroll portion 11 of the instrument in the manner clearly illustrated in Figures 1 and 2. While this frame may vary in size and configuration, and be held fixed upon the instrument in any suitable manner, the frame is preferably formed from a single piece of suitable material and bent upon itself in U-shaped formation. One side of the frame is indicated at 14, while the other side has its intermediate portion cut away to provide a lug 15 and spaced parallel limbs 16 and 17 respectively. The limb 17 is slightly longer than the limb 16 and provided with an opening 18 for a purpose to be presently described, while the lower edge of the limb 16 is curved to accommodate itself to the curvature of the adjacent peg or key of the instrument upon which it is adapted to repose in the manner shown in Figure 2. It will be noted upon reference to Figure 3 that the lug 15 projects outwardly at a right angle from the frame, and has attached thereto one end of a spring 20, the latter depending from the lug at an inclination to the frame, and used in connection with the wall 14 thereof to support the attachment upon the instrument in the manner illustrated. The opening 18 in the limb 17 is adapted to receive the adjacent peg or key 12, to assist the resilient element or spring 20 in holding the attachment in position for use. In order to associate the attachment with the instrument, it is only necessary to slightly withdraw one of the pegs or keys 12 from the opening in one side of the scroll portion 11, and subsequently arrange the frame within the channel-like portion thereof, with the frame bearing against the inner surface of one side of the channel-like portion, and the spring 20 engaging the

outer surface of said side as shown in Figure 1. In positioning the frame upon the instrument in the manner just stated, the opening 18 of the longer limb is arranged to coincide with the opening which receives the adjacent peg or key 12, so that when this peg is returned to its normal position, it passes through the opening 18, and thus assists the spring 20 in holding the attachment fixed relatively to the instrument.

Pivoted between the side walls of the frame, and at one end thereof is a lever 21 which projects an appreciable distance beyond the forward end of the frame, and carries a lug 22 which has its under surface slightly grooved as at 23 to accommodate the adjacent string 13 of the instrument, it of course being understood that when the attachment is arranged in position for use, the lever 21 is initially positioned with its lug 22 reposing upon the adjacent string 13. Carried by the closed side of the frame is an adjusting screw 24 having a head 25, the lower end of which screw bears against the lever 21, it being through the instrumentality of the screw that the lever is moved upon its pivot to effect a minute adjustment of the string 13. In practice, the pegs or keys 12 are initially used to tension the strings in the ordinary well known manner, but this only roughly tunes the instrument, the finer or more minute adjustment of the string being subsequently obtained by turning the screw 24 in a direction to move the lever in the desired direction.

While it is believed that from the foregoing description the nature and advantages of the invention will be readily apparent, I desire to have it understood that I do not limit myself to what is herein shown and described, and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What is claimed is:

1. A string tensioning device for musical instruments, comprising a frame including spaced parallel limbs, one of which has an opening therein adapted to receive the adjacent key of the instrument, the lower edge of the other limb being curved to repose upon the next adjacent key, a resilient element carried by the frame to assist said limbs in supporting the device upon the instrument, a lever pivoted on said frame and designed to engage said string, and means for moving said lever in the direction of the string to obtain a minute adjustment of the latter.

2. A string tensioning device for musical instruments having string tensioning keys, said device comprising a frame of U-shaped formation in cross section, and including spaced parallel limbs, one of said limbs having an opening to receive the adjacent key, the other limb reposing upon the next adjacent key, a lever pivoted between the sides of said frame and projecting beyond one end thereof, a lug carried by the lever for engagement with the adjacent string upon which it normally reposes, and a threaded adjustment element supported by the frame for moving the lever in the direction of said string for obtaining a minute adjustment of the latter.

3. As a new article of manufacture, a string tensioning device for musical instruments comprising a frame including opposed side members, the intermediate portion of one of said members being cut to provide a lug projecting laterally from the frame, and spaced parallel limbs at opposite sides of the lug, one of said limbs being slightly longer than the other and provided with an opening, a resilient element carried by the lug and depending therefrom, a lever pivoted between the sides of said frame and projecting beyond one end thereof, a lug projecting from one side of the lever, and a threaded element adjustably supported upon the frame and arranged to move the lever in one direction.

In testimony whereof I affix my signature.

GRANT HUGHES.