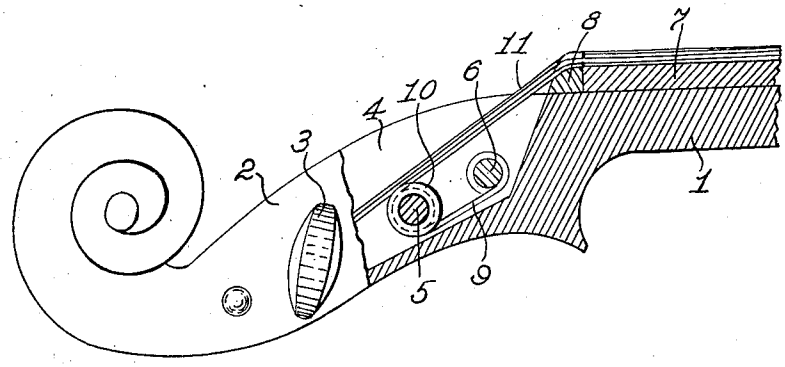
Aug. 9, 1932. E. L. GOSS ET AL 1,870,623

VIOLIN

Filed Nov. 12, 1930

Fig. 1.



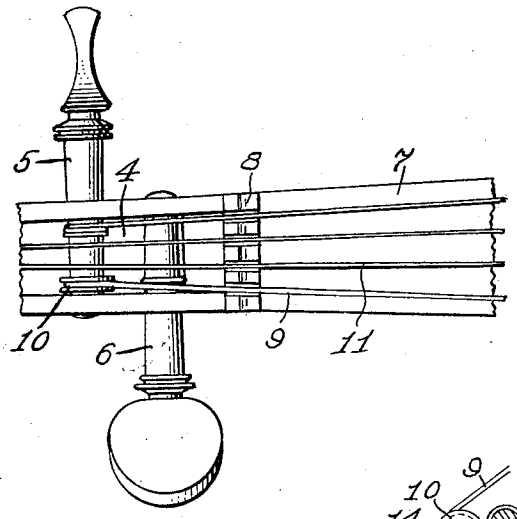


Fig. 2.

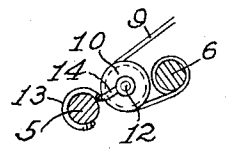


Fig. 3.

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UNITED STATES PATENT OFFICE

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VIOLIN

Application filed November 12, 1930. Serial No. 495,057.

Our invention relates to improvements in musical instruments of the violin class, and the object of our improvement is to supply means for supporting a string under tension in a manner to lessen to a minimum its angle of bending over the finger-board nut to the peg upon which it is windable, to thus largely obviate its liability to excessive wear at the nut and to break prematurely at its angle of bending there.

This object we have achieved in actual practice by the means which are hereinafter described and claimed, and which is illustrated in the accompanying drawing, in which Fig. 1 is a side elevation, in partial longitudinal section, of connected portions of the finger-board of a violin, its nut and peg-box, showing our said string supporting means included therewith. Fig. 2 is a plan view of the same elements, in each case only the neck part of a violin being shown. Fig. 3 shows a modification of the roller carrier.

The numeral 1 denotes part of the neck of a violin, including its peg-box 2 and terminal scroll, its finger-board 7 with terminal nut 8, and the usual pegs, as at 3, 5 and 6, the fourth peg being shown at its stem end but not numbered. The stems of these pegs cross the hollow or trough 4 of the peg-box in the usual way, and, as shown, the strings 11 cross the nut 8 under tension, bending inclinedly into the trough 4 to be wound as usual about stems of all the pegs except the G-string 9. This string is usually windable around the stem of the peg 6 which is nearest the inner shoulder or offset part of the neck 1, and consequently the angle of bending of the G-string toward the peg 6 is in the usual arrangement at a greater angle of bending relative to its main body part stretched over and along the finger-board, than any of the other strings. Thus, the G-string, being of gut, usually wears more than the others at its angle of bending toward the stem of the peg 6, and because of its material usually breaks at or near that point, causing a considerable expense for replacements. It is our object to largely obviate such breaking of the G-string with its unavoidable expense of maintenance or change.

We have accordingly devised and thoroughly tested the means shown in said drawing, and find that the same are of practical use for the purpose mentioned.

This means, in one form, consists of a circumferentially grooved roller 10 mounted loosely rotatably upon the stem of the peg 5 which is the next peg in succession toward the scroll end of the neck 1 from the said peg 6. The G-string 9 is carried in the groove of said roller 10 around it and returns to be wound around the stem of the peg 6. This interposition of the anti-friction roller 10 freely rotatable upon the stem of the farther peg 5 in succession, evidently lessens the angle of bending of the G-string at the angle of the nut 8 to be approximately the same angle of inclination as that of the other strings. The wear upon the G-string at the nut is thus largely obviated. As the G-string is the most expensive of all the strings to replace, the economy resulting from the use of our appliance is obvious.

It is to be understood, however, that while we have shown the G-string roller 10 mounted upon the stem of the nearest adjacent peg 5, it is evident that the roller may be thus mounted upon the stem of either of the pegs farther away, if desired, in thus varying the angle of bending of the treated string at the nut 8. Also, the roller may be mounted on a hook or other means.

It is also to be understood, that the roller 10 may in some cases be dispensed with, and the G-string or other string, carried around the stem of any of the pegs desired to be returned to be windable upon another peg, and still be within the scope of our invention.

Our invention is applicable to any of the musical instruments of the violin or viola class, which among others include the viola, or tenor violin, violoncello, double-bass viola, or others where the strings must bend across a nut into a peg-box at a considerable angle. The roller is hidden in the peg-box, is easily placed or removed, and inexpensive.

In Fig. 3, the roller 10 is mounted on a shaft 12 between arms 14 of a hook 13 which is hung on one peg 5, and used in some cases

where necessary to place the roller 10 between pegs.

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

1. In an instrument of the violin class, in combination with the peg-box and pegs thereof, and the finger-board nut, of a string crossing said nut under lengthwise tension, bending thence slidably in a loop around a stem of one of the remoter pegs and returning thence to be windable around the stem of a peg nearer said nut.

2. In an instrument of the violin class, in combination with the peg-box and pegs thereof, and the finger-board nut, of a string crossing said nut under lengthwise tension, bending thence reversely into the peg-box to be wound about the stem of one of the pegs, and anti-friction means in the peg-box mounted therein to carry the loop of said string therein at a level approximately even with the angle of inclination of the other strings therein.

3. In an instrument of the violin class, in combination with the peg-box and pegs thereof, and the finger-board nut, of a string crossing said nut under lengthwise tension, bending thence into the peg-box, a circumferentially grooved roller mounted rotatably upon the stem of one of the pegs, more remote from said nut than the nearest peg thereto, and the said string being carried around the groove of said roller to return to said nearest peg and be windable around the latter, to thus lift the string to be at a level in the peg-box approximately that of the other strings therein at the same angle of bending at the nut.

In testimony whereof we affix our signatures.

EDWARD L. GOSS.
HENRY MUELLER.