April 6, 1926. 1,579,987

M. O. WICKES

PEG FOR STRINGED INSTRUMENTS

Filed August 15, 1922

Fig. 1.

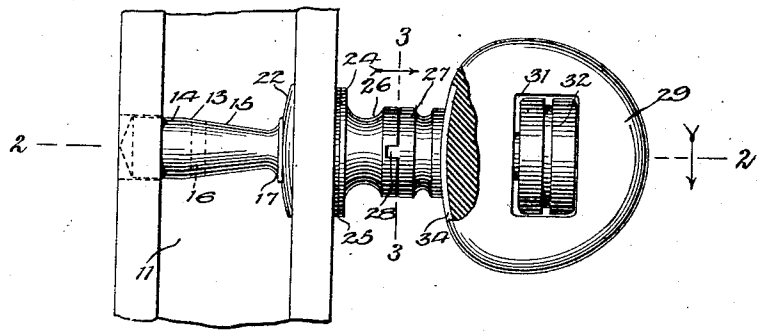


Fig. 2.

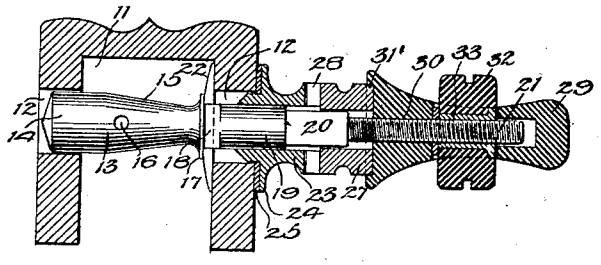


Fig. 3.

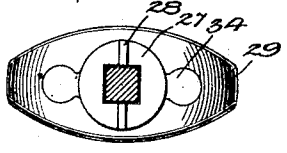


Fig. 4.

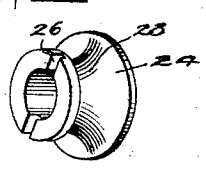
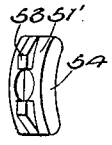


Fig. 6.



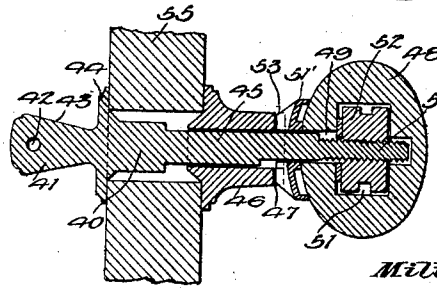


Fig. 5.

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UNITED STATES PATENT OFFICE.

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PEG FOR STRINGED INSTRUMENTS.

Application filed August 15, 1922. Serial No. 582,002.

To all whom it may concern:

Be it known that I, MILTON O. WICKES, a citizen of the United States, and a resident of Northampton, in the county of Hampshire and State of Massachusetts, have invented a new and Improved Peg for Stringed Instruments, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in string pegs for stringed musical instruments.

It is one of the objects of the present invention to provide a new and improved peg in which the tension of the peg may be increased or decreased at will by the operator without the use of tools of any sort.

It is a further object of the invention to construct the peg so that the same may be turned without disturbing the tension to which the peg is adjusted.

It is a further object of the invention to construct a peg on which the string will at all times occupy a position adjacent the proper side of the wall of the peg box on which the string belongs, thus preventing a crossing or otherwise tangling of the strings within the peg box.

It is a further object of the invention to provide a new and improved form of peg which is capable of use in connection with musical instruments in which there is a peg box as, for instance, violins, cellos, and the like, or capable of use in connection with stringed instruments in which there is no peg box, as for instance, banjos, ukuleles, etc.

With the above and other objects in view, reference is had to the accompanying drawings, in which—

Figure 1 is a fragmentary view of a musical instrument peg box showing one of the improved pegs mounted therein, a portion of the thumb piece of the peg being broken away;

Fig. 2 is a longitudinal sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1;

Fig. 4 is a detail perspective view of a portion of the peg;

Fig. 5 is a longitudinal sectional view of a slightly modified form of the invention;

Fig. 6 is a detail perspective view of a portion of the peg employed in the modified form shown in Fig. 5.

Referring more specifically to the drawings, the reference character 11 designates the peg box and the side walls thereof are provided with perforations 12 in such a manner that the perforations in one wall are in alinement with those in the other wall.

The reference character 13 designates the peg and said peg is provided with a rounded end portion 14 adapted to be received in one of the openings 12 of the peg box. Adjacent the rounded end the peg 13 is tapered as indicated at 15 and said tapered portion is provided with an opening 16 in which the string is adapted to be secured to the peg. At the base of the tapered portion 15, a flange 17 is formed and adjacent said flange 17 the peg is squared or angular as indicated by the reference character 18. Adjacent the angular portion 18 the peg is rounded again as indicated at 19, and adjacent said rounded portion 19 the peg is again angular in form as at 20. Projecting from the angular portion 20 of the peg is a reduced screw-threaded portion 21 and said screw-threaded portion 21 forms the outer end of the peg.

Mounted on the angular portion 18 of the peg and positioned within the peg box 11, is a washer plate or the like 22 constituting a clamping member, said washer plate having an opening of angular form corresponding to cross sectional form of peg to receive the angular portion 18 of the peg. Mounted on the rounded portion 10 of the peg is a second clamping element 23, and said clamping element 23 has a flange 24. Adapted to be positioned between the flange 24 and the wall of the peg box 11, is a washer 25, which prevents marring of the outer wall of the peg box through the action of the clamping member 23. This clamping member is provided on its outer face with a plurality of notches 26, the purpose of which will be hereinafter referred to.

Mounted on the angular portion 20 of the peg 13, is a driving element or collar 27, and said driving element 27 has a plurality of projecting lugs or the like 28, adapted to be received in the notches 26 of the clamping member 23.

The reference character 29 designates the key or thumb piece and said key or thumb piece 29 is provided with a longitudinal passage 30 adapted to receive the reduced screw-threaded extension 21. This key or thumb piece 29 is adapted to be connected

or secured to the driving element 27 as at 31', in such a manner that as the key or thumb piece 29 is grasped and rotated the driving element 27 will likewise be rotated therewith. The key or thumb piece 29 is provided with a cut-out portion 31, and mounted in said cut-out portion is a nut or the like 32. This nut is provided with a bushing 33 having an internally screw-threaded passage adapted for engagement with the screw-threaded extension 21 of the peg 13.

As shown in Fig. 3, the driving element 27 is provided with wings or the like 34, which are adapted to be inlaid in the key or thumb piece 29. While the wings 34 have been described as being inlaid in the key or thumb piece 29, it is obvious that any other means of attaching the driving element to the key or thumb piece may be resorted to without departing from the spirit of the invention.

In this form of the device, the operation is as follows:

The nut 32 is rotated within the key or thumb piece 29 and during rotation of the nut 32 the wall of the peg box will be clamped between the washer plate 22 and the flange 24 of the clamping member owing to the peg being pulled through the opening 12 upon rotation of the nut 32. When the peg has been adjusted to the desired tension the nut 32 is released and the key or thumb piece 29 is gripped and rotated. Upon rotation of the key or thumb piece 29 the driving element 27 will likewise be rotated and inasmuch as said driving element 27 has an angular opening for the reception of the angular portion of the peg 13, the peg will likewise be rotated to wind the string thereon and tighten the same. It is, of course, understood that rotation of the peg in the opposite direction will tend to loosen the string as desired. The lugs 28 and notches 26 provide a coupling between the driving element 27 and the second clamping member 23 which transmits the drive from the key 29 and the driving element 27 to the second clamping member 23 while permitting the second clamping member 23 to rock sufficiently to apply a uniform load or pressure to the wall of the peg box even though such wall be inclined as it usually is.

Due to the tapered portion 15 of the peg 13, the string in tightening will naturally ride down the tapered portion or to the right in Figs. 1 and 2, and will occupy a position closely adjacent the side wall of the peg box, thus insuring the string from becoming tangled or crossed with respect to the other strings in the peg box.

In lieu of the foregoing it is obvious that just sufficient tension may be had to prevent slipping of the peg under the strain of the tension under which the string is put thereby. In this latter operation after the string has been adjusted or tuned, it is only necessary to turn the nut 32 and the peg will be clamped to the side wall of the peg box in such a manner that slippage of the peg will be prevented. The foregoing is, however, merely an illustrative form of operation, and the first described operation is more desirable since a more accurate tuning can probably be had thereby.

By providing the peg with a rounded portion 14 adapted to be received within an opening in the opposite wall of the peg box to that in which the peg is mounted, it is obvious that strains or pulls upon the peg which would tend to throw the same out of a true horizontal plane, are prevented since the opening in the opposite wall of the peg box tends to form a bearing for the free end of the peg.

In the form of the invention shown in the drawings, the peg is what is known as a right-hand peg and is adapted to be used on the right side of the peg box with the string face of the instrument facing the artist.

In stringed instruments there are pegs on both sides of the peg box and to adapt this construction to a left-hand peg it is only necessary to provide the reduced screw-threaded extension 21 with a left-hand thread instead of a right-hand thread as shown. This construction of peg is particularly adaptable for use in violins and the like, since by employing right- and left-hand pegs it enables the artist to tune the several strings without removing the instrument from playing position and thus the desired tones can be had. Furthermore, by employing left-hand threads on the left-hand side of the peg box all of the pegs are turned in the same direction to either tighten or loosen the strings.

In that form of the invention shown in Figs. 5 and 6, the peg disclosed is particularly adapted for use in connection with banjos, ukuleles, and similar stringed instruments, in which no peg box is employed. In this form of the invention the peg is designated by the reference character 40 and has a free end 41 provided with an opening 42 in which the string is adapted to be secured. The peg 40 has a tapered portion 43 and at the base of said tapered portion the peg is provided with a flange 44 constituting a clamping member. The peg is also provided with a reduced angular portion 45, and mounted thereon is a second clamping member 46, the outer end of which is provided with recesses 47, the purpose of which will be hereinafter described.

The reference character 48 designates a key or thumb piece and the same is provided with a longitudinal passage 49 for the reception of the reduced angular portion 45 of

the peg, and said peg 40 has a reduced screw-threaded extremity 50 adapted to lie within the key or thumb piece 48. The key or thumb piece 48 is further provided with a cut-out portion 51 and mounted therein is a nut 52, which is adapted for screw-threaded engagement with the screw-threaded extremity 50 of the peg 40. Interposed with respect to the key or thumb piece 48 and the clamping member 46 is a plate 51′ constituting a driving element, and said plate is provided with side flanges 54. This plate is of a curved construction and adapted to receive a portion of the edge of the key or thumb piece 48 therein between the flanges 54. The plate 51′ is provided with lugs 53 and said lugs are adapted to be received within the recesses of the clamping member 46.

By this construction it is obvious that as the key or thumb piece 48 is rotated through the medium of the lugs or projections 53 on the plate 51′, the clamping member 46 will be rotated and will serve to rotate the peg 40.

To increase or decrease the tension of the peg, it is only necessary to rotate the nut 52 in the key 48 and upon tightening said nut 52 the clamping member 46 will be caused to move in the direction of the head 55 of the instrument and grip the same firmly between itself and the flange 44 of the peg. By adjustment of the nut 52, it is obvious that the tension of the peg may be increased or decreased at will.

From the foregoing it is apparent that the present invention provides a new and improved form of construction for adjusting the tension of the string peg of stringed musical instruments, and, furthermore, the invention provides means for locking the string peg in adjusted position if desired. A still further result obtained by the construction set forth in this case is that the strings owing to the tapered string-receiving portion of each peg, are caused to occupy a position in closed proximity to their respective walls of the peg box and the flange of the peg and thus prevent crossing or tangling of the strings within the peg box.

I claim:

1. A peg for stringed instruments comprising a peg body having a clamping member fixed thereto and a clamping member adjustable angularly thereabout and longitudinally thereof, said peg body having a screw-threaded extension, a key mounted on the screw-threaded extension for longitudinal and rotary movement relative thereto, a driving element fixed to the key, said driving element and said peg body being constrained to partake of the same angular movement, the driving element being slidable along the peg body, said driving element and said second-mentioned clamping member having interengaging coupling means for transmitting the drive from the driving element to the second clamping member while permitting the second clamping member to rock to accommodate itself to the different positions it must assume so that the clamping member applies a uniform pressure at all times and a nut operatively engaged with the screw-threaded extension and co-acting with the key for controlling the gripping engagement of the clamping member with the side wall.

2. In combination with a peg box having side walls provided with alined openings, a peg mounted in said openings, a clamping member fixed to the peg and engageable with the portion of one side face of one of the side walls which is located around the opening thereof, a second clamping member mounted on the peg for longitudinal movement but held against rotary movement with respect thereto, said second clamping member being engageable with the opposite side face of the same side wall from that engaged by the first mentioned clamping member whereby when the clamping members grip the side wall the same is subjected to compression strains only, said peg having a screw threaded extension, a key mounted on the screw threaded extension for longitudinal and rotary movement relative thereto, a driving element fixed to the key, said driving element and said second clamping member having interengaging coupling means for transmitting the drive from the driving element to the second clamping member while permitting the second clamping member to rock to accommodate itself to the inclination of the side wall and to thereby apply a uniform pressure to the side wall in all adjustments, and a nut operatively engaged with the screw threaded extension and coacting with the key for controlling the gripping engagement of the clamping members with the side wall.

MILTON OSMOND WICKES.