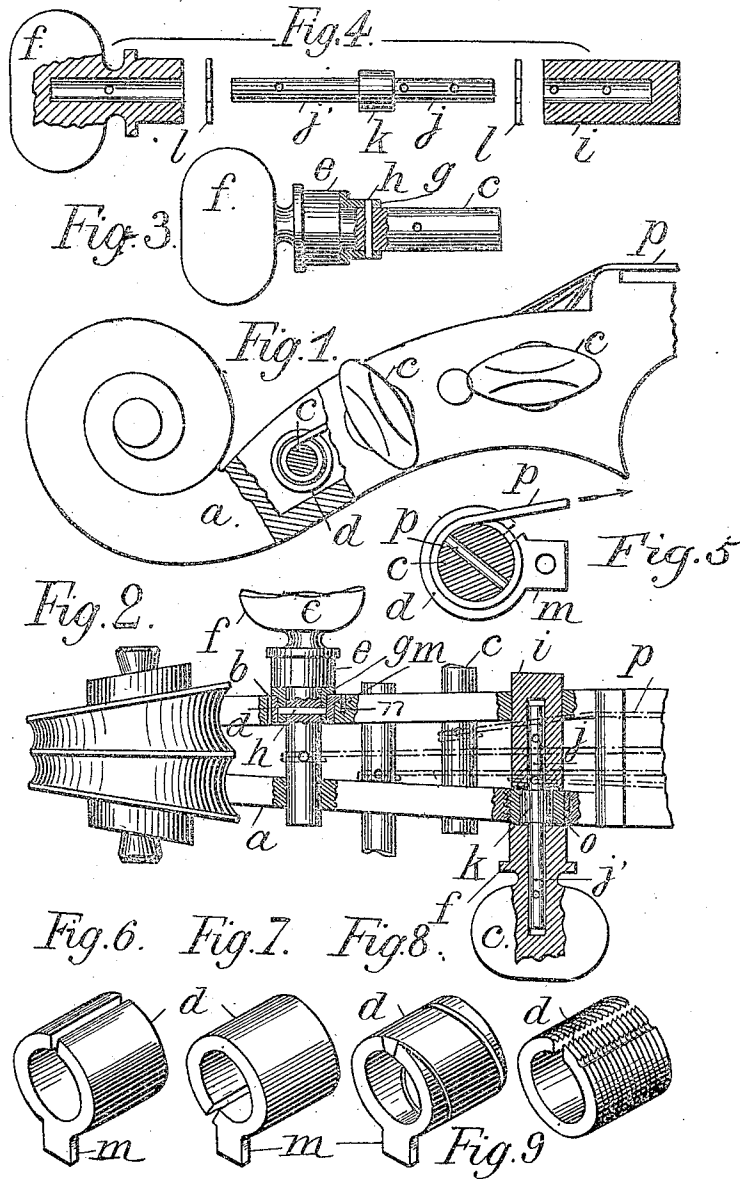


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 VIOLIN TUNING PEG.
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938,079.

Patented Oct. 26, 1909.



Witnesses:

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VIOLIN-TUNING PEG.

938,079.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PAUL ROSE, of 47 Rue de Paradis, Paris, France, manufacturer, have invented new and useful Improvements in Violin-Tuning Pegs, which improvement is fully set forth in the following specification.

This invention relates to improvements in pegs and the provision of an automatic brake for use with string instruments such as violins, violas, violoncellos, guitars and the like; such pegs while in no way changing the appearance or the weight of the head of the instrument and while properly resisting the pull of the string, regulate and reduce the effort necessary to tune the instrument so that this can be done by the player without changing position of the same. For this purpose in accordance with this invention in place of frictional contact of a wooden peg against the wooden head of the instrument the peg is provided with a cylindrical or slightly conical metal portion which engages a ring of corresponding shape fixed in the head of the instrument; the normal diameter of the ring is a little less than that of the portion of the peg which it embraces and the ring is split in such a manner as to clasp the peg by reason of its own elasticity and thus to form an automatic brake which prevents the rotation of the peg in one direction under the pull of the string.

In the accompanying drawings which illustrate the application of the present invention to a violin, Figure 1 is a side elevation but partially in section of the head of the instrument. Fig. 2 is a plan partially in section showing two ways of constructing the peg. Fig. 3 is a side elevation partly in section of a peg. Fig. 4 is a similar view showing the different parts which constitute a modified form of peg. Fig. 5 is a detail view showing the working of the brake and Figs. 6, 7, 8 and 9 show in perspective several forms of brake ring to a larger scale.

In these figures *a* is the head of the violin which is of the usual shape but in which the holes *b* formed in it for the passage of the pegs *c* are very slightly enlarged on the side at which the heads of the pegs are situated for the purpose of receiving the brake rings *d*. The pegs *c* are externally of the usual shape, in order not to modify the appearance of the head of the instrument. The pegs may for this purpose, as shown in the left hand portion of Fig. 2 and Fig. 3, be formed

of a wooden body provided at the head side with an enlargement *e* against which a hard steel ring or collar *g* is forced; the ring may be maintained in position for example by a pin *h*.

In order that the portion of the peg upon which the string is wound may be as thick as the remainder of the peg, the peg may be formed of a head *f*, having an enlargement *e*, and a body *i* both fixed by means of pins for example upon thin stems *j j'* of round or square section against a boss *k* formed of hard metal; the head *f* and the body *i* should not be able to turn upon their stems.

In order to mask the brake ring *d* and to preserve to the peg when in position its usual aspect, the portions *e* and *i* are of a diameter approximately equal to the outside diameter of this ring and consequently greater than that of the boss *k*. Lastly in order to prevent direct friction of the wood against the ring *d*, it is well to interpose thin metal washers *l* between the boss *k* and the parts *e* and *i*.

The split metal ring *d* which constitutes the brake is bored out to a diameter slightly less than that of the peg *c* so as to exert upon the peg a certain squeezing action when it has been inserted, which operation of course expands the ring; the hole *b* in which the ring is fixed should be of a diameter very slightly greater than the outer diameter of the ring *d* in order to allow of its expansion.

The ring *d* may be fixed in the head *a* of the violin in many different ways. It may for example as shown to the left of Fig. 2 and Figs. 5 to 8 be provided with one or more lugs *m* embedded in the head *a* and retained by a screw *n*. These lugs may if desired be covered with wood. The ring may again (right hand portion of Fig. 2 and Fig. 9) be outwardly screw threaded and screwed with very slight play so as to preserve its elasticity, into the head *a* in which it is retained by a pin or a small screw *o* or in any other suitable manner. Whatever may be the method in which the ring is secured, the fixing should be effected (Fig. 9) at that side of the ring against which the pull of the string *p* tends to press the peg *c* for otherwise the pull of the string would tend to remove the part which is securing it. Lastly it is well to place the split of the ring *d* in immediate proximity to the part securing it (*m* or *o*) in order that the pull of the string may tend by reason of the

friction existing between the peg and the ring, to close the ring and to increase the resistance it offers and in order that when the peg is turned to tighten the string this may have the effect of opening the ring and diminishing friction. This effect may be accentuated by splitting the ring not longitudinally but helically as in Fig. 8 in such a manner as to increase the arc through which the open edge is turned when the ring d is expanded and consequently to also increase the frictional resistance when braking.

By the suitable choice of the size of the ring d it will be easy to obtain sufficient friction to resist the maximum tension of the strings of any such instrument while reducing the effort necessary to tune the instrument thus allowing this to be done without altering the position of the instrument.

The arrangements illustrated may be modified, the automatic brake especially may be made to act upon both ends of the peg or even alone upon the end opposite to the head of the peg.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. The combination, with a stringed musical instrument, and a yielding bushing secured in the instrument, of a tuning peg fitted in frictional engagement therein.

2. The combination, with a stringed musical instrument, and a split resilient bushing secured in the instrument, of a tuning peg fitted in frictional engagement therein.

3. The combination, with a stringed musical instrument, and a split resilient bushing secured in the instrument, of a tuning peg of slightly larger diameter fitted in frictional engagement therein.

4. The combination, with a stringed musical instrument, and a bushing secured in the instrument and split on that side nearest the fixed ends of the strings, of a tuning peg of slightly larger diameter than the interior of the bushing fitted in frictional engagement therein.

5. The combination, with a stringed musical instrument, having a head and a body and a bushing secured in the head and split on that side nearest the body of the instrument, of a tuning peg fitted in frictional engagement therein.

6. The combination, with a stringed musical instrument, having a head and a body and a bushing secured in the head and split on that side over which the strings are drawn, of a tuning peg fitted in frictional engagement therein.

7. The combination, with a stringed musical instrument, and a split bushing inserted in the instrument and having a laterally extending lug, means securing the lug

to the instrument on that side of the bushing nearest the fixed ends of the strings, of a tuning peg fitted in frictional engagement therein.

8. The combination, with a stringed musical instrument, having a head and a body and a bushing inserted in the head and having a laterally extending lug, means securing the lug to the instrument on that side nearest the body thereof, the bushing split near the lug on that side over which the strings are drawn, of a tuning peg fitted in frictional engagement therein.

9. The combination, with a stringed musical instrument, and a split resilient bushing secured in the instrument, of a tuning peg fitted in frictional engagement therein, the peg formed with a shoulder to overlie the outer end of the bushing.

10. The combination, with a stringed musical instrument, and a split resilient bushing secured in the instrument, of a tuning peg fitted in frictional engagement therein, the peg formed with an enlargement to overlie the outer end of the bushing, and a washer interposed between the shoulder and bushing.

11. The combination, with a stringed musical instrument, and a split resilient bushing secured in the instrument, of a tuning peg fitted in frictional engagement therein, the peg formed with a bearing boss to enter the bushing, and an enlargement to overlie and conceal the outer end of the bushing.

12. The combination, with a stringed musical instrument, and a split resilient bushing let into the instrument, of a tuning peg comprising a head portion and a shank portion and an interiorly arranged stem, the stem serving to unite the head and shank and enlarged in its medial portion to form a boss to fit within the bushing in frictional engagement.

13. The combination, with a stringed musical instrument, having a head and a body and a bushing inserted in the head and having a laterally extending lug, means securing the lug to the instrument on that side nearest the body thereof, the bushing split near the lug on that side over which the strings are drawn, of a tuning peg comprising a head portion and a shank portion and an interiorly arranged stem the stem serving to unite the head and shank and enlarged in its medial portion to form a boss to fit within the bushing in frictional engagement.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

PAUL ROSE.

Witnesses:

C. DE MESTRAL,
H. C. COXE.