

F. J. STECKENREITER.
 VIOLIN BOW.
 APPLICATION FILED SEPT. 16, 1914.

1,151,413.

Patented Aug. 24, 1915.

Fig. 1.

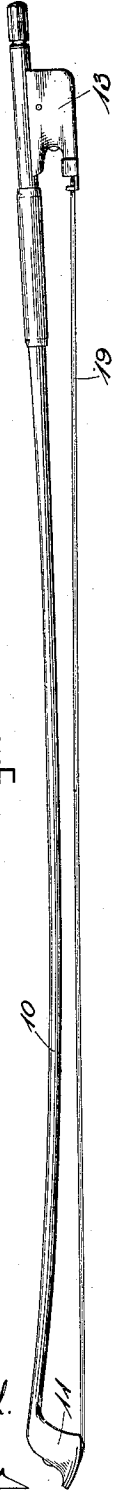


Fig. 2.

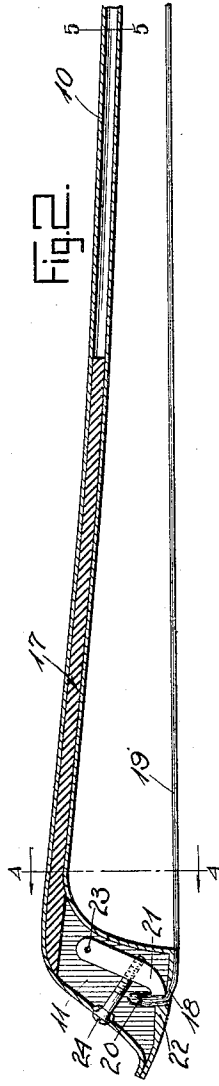


Fig. 3.

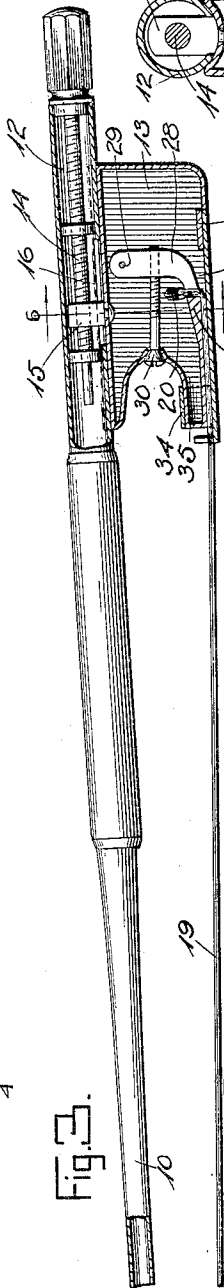


Fig. 5.

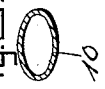


Fig. 7.

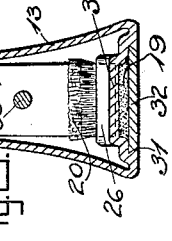
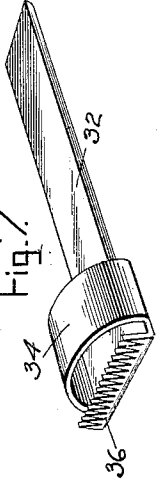
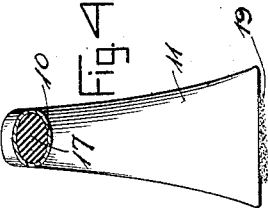


Fig. 4.



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VIOLIN-BOW.

1,151,413.

Specification of Letters Patent.

Patented Aug. 24, 1915.

Application filed September 16, 1914. Serial No. 861,994.

To all whom it may concern:

Be it known that I, FRANK J. STECKENREITER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Violin-Bow, of which the following is a full, clear, and exact description.

This invention relates to musical instruments and has particular reference to the construction and musical effects of bows commonly used upon violins, cellos and the like.

It is a well known fact among violinists and cellists that because of the lightness at such point there is less volume of tone at or produced by the tip of the bow than at its center or frog, and one of my objects of this invention is to make the back or staff of the bow of tubular metal or the like and to fill the tube at or near the tip with any desired amount or weight of white lead or other suitable plastic material, so as to get sufficient weight where it is most needed, according to the desire or requirements of the individual player.

A further object of the invention is to improve the means for facilitating the renewal of the hair, and furthermore to provide a means for maintaining the hair in proper shape adjacent the frog.

The foregoing and other objects of the invention will hereinafter be more fully described and claimed and illustrated in the drawings forming a part of this specification in which like characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a side elevation of a complete bow made in accordance with this invention; Fig. 2 is a vertical sectional view of the tip end of the bow; Fig. 3 is a similar view of the frog end of the bow; Figs. 4, 5 and 6 are transverse sectional details on the corresponding lines of Figs. 2 and 3; and Fig. 7 is a perspective view of the guard referred to below.

The several parts of this device may be made of any suitable materials, and the relative sizes and proportions, as well as the general design of the mechanism, may be varied to a considerable extent without departing from the spirit of the invention hereinafter more fully described and specifically claimed.

Referring more particularly to the drawings, I show a bow of the character indicated comprising a back 10 made in any suitable manner of tubular metal or its equivalent, the tubular construction being carried to both ends so as to include the tip 11 and an anchor socket 12. The frog 13 also is preferably made of hollow metal and is connected to the bow in the usual manner by means of a screw 14 coöperating with a lug 15 slidable along a slot 16 for tightening the bow as usual.

In order to provide the desired weight for the tip end of the bow, I fill the tubular structure adjacent thereto with a mass of white lead or other suitable plastic material, indicated at 17. This material may be introduced through the hollow tip at the opening 18 in or through which the hair 19 is secured. For the benefit of a player demanding a bow with a heavy tip, an amount of filling material calculated to meet such demand will be inserted. This may be done at any time, and furthermore such added weight may subsequently be increased or diminished as may be required to meet varying conditions.

I provide hair 19 of standard length and size to correspond to bows of corresponding length. The hairs will be formed so as to be of exactly the same length, and while being held in proper position will have their ends clipped and provided with lumps of glue or the like to maintain them in such position permanently, as indicated at 20. Referring again to the tip, in order to secure the hair to the bow, one end 20 is passed into the interior of the tip through the hole 18 where it will be gripped and clamped by the action of the free end of a lever 21 gripping the hair against a thickened shoulder 22 at the front edge of the hole or opening 18 at the bottom of the tip. This lever is shown pivoted at 23 adjacent the upper part of the hollow tip and operated by a screw 24 bearing in the outer face of the tip. After this end of the hair is locked in place, the other end will be similarly gripped to the frog. As above premised, the frog is of hollow construction and on its lower face is provided with an opening 25 between the thickened shoulder 26 and a reinforcement plate 27. The lever 28 is of a similar character to the lever 21 and is pivoted at 29 so as to provide the desired gripping action when acted upon by the screw 30.

The lower and front portion of the frog is provided with an undercut groove 31 in which the tongue 32 of a guard member (see Fig. 7) is slipped after the hair is clamped in the frog. The hair is held between this tongue and the plate 33 which carries the enlargement 26. The guard member comprises an integral thimble 34 which is adapted to slip over the end or nose 35 at the front end of the frog and also it includes a comb-like structure or spreader 36 extending in a plane perpendicular to the axis of the bow and closely adjacent the aforesaid nose 35 and thimble 34. The arrangement of this spreader is such that its teeth which are all of the same length and lie in the same row project upwardly through the hair precisely at the front lower edge of the nose 35 whereby all possibility or tendency of the hair to roll into a round or irregular mass after a few weeks' use is avoided. The tongue 32 has its edges beveled to correspond to the dove-tailed groove 31 in which it is fitted and whereby it is caused to close the hole 25 in the bottom of the frog.

I claim:

1. In a violin bow, the combination of a back, a hollow tip forming an extension of the back and having an opening at the bottom and also having a shoulder adjacent the opening, a lever pivoted within the upper portion of the hollow of the tip and having its free end adjacent said opening, hair introduced into the tip through the opening, and means to cause the lower free end of the lever to bind the hair against said shoulder.

2. In a violin bow, the combination with

a back, hair, a frog having a forwardly projecting nose, and means to secure the hair to the frog, of a guard on the frog including a spreader having teeth projecting through the hair at the front lower edge of said nose and maintaining the same in flat form.

3. The combination with a violin bow back and hair therefor, of a frog having an opening in its bottom through which the end of the hair passes, the frog adjacent the opening being provided with a dovetailed groove, a guard member having a tongue fitted in said groove and including a spreader having teeth extending through the hair in a plane perpendicular to the axis of the bow just in front of the lower front edge of the frog.

4. The combination of a hollow violin bow frog having an opening in its bottom and a dove-tailed groove adjacent thereto, the front end of the lower portion of the frog forming a nose, and a guard member comprising a flat tongue fitted into said groove and closing said opening, the front end of the guard comprising a toothed spreader extending upwardly in a plane perpendicular to the plane of said tongue just in front of said nose, and said guard also including a tubular thimble fitted over said nose.

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

FRANK J. STECKENREITER.

Witnesses:

GEO. L. BEELER,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."