

(No Model.)

W. J. MURDOCK.
VIOLIN BOW.

No. 558,700.

Patented Apr. 21, 1896.

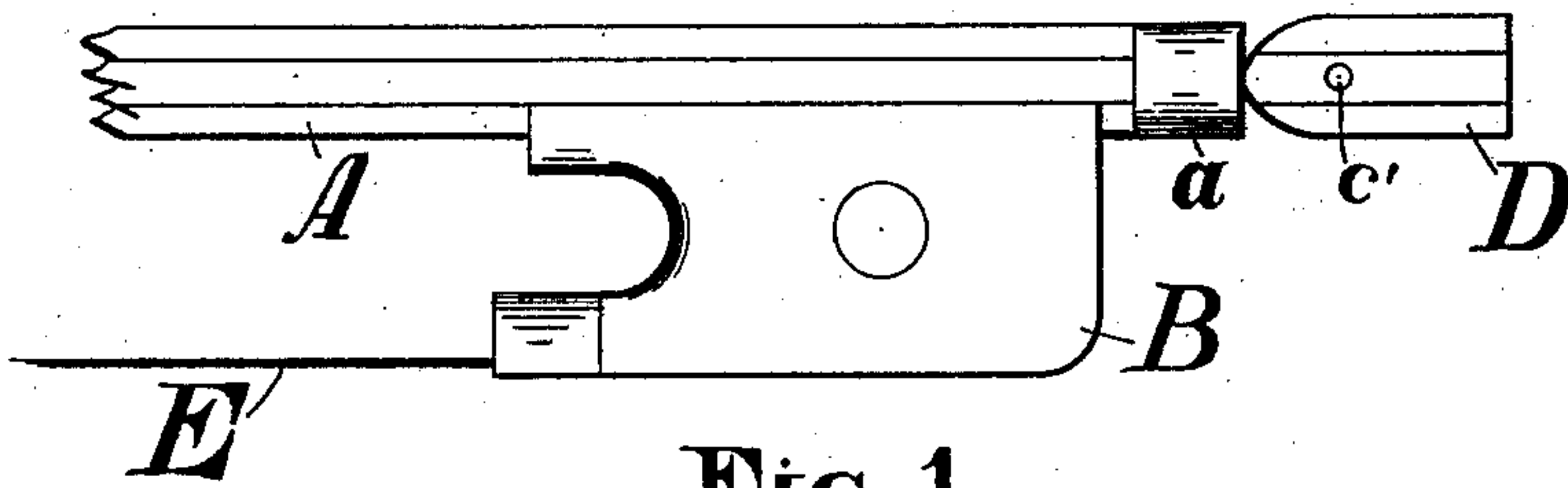


FIG. 1.

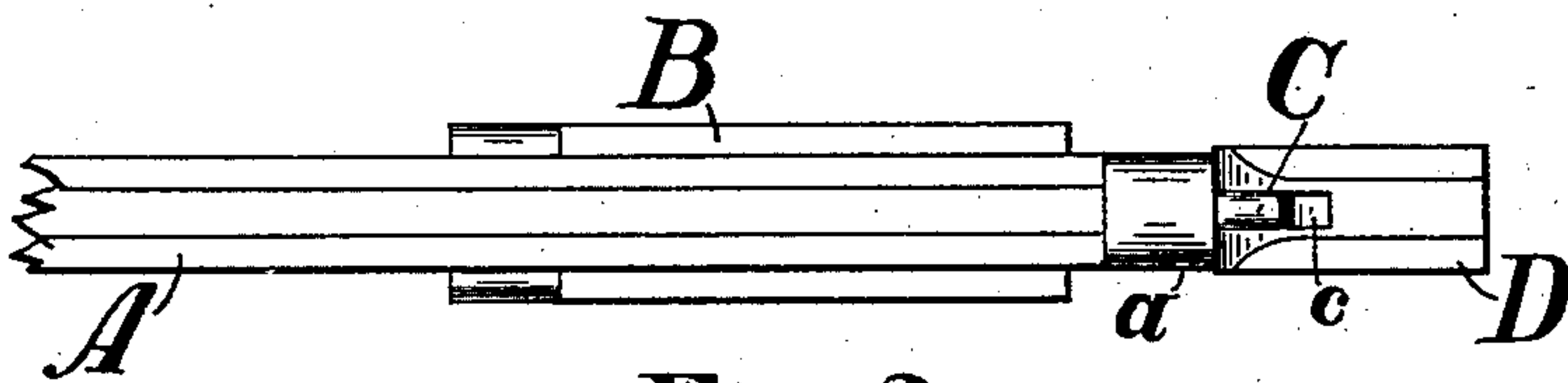


FIG. 2.

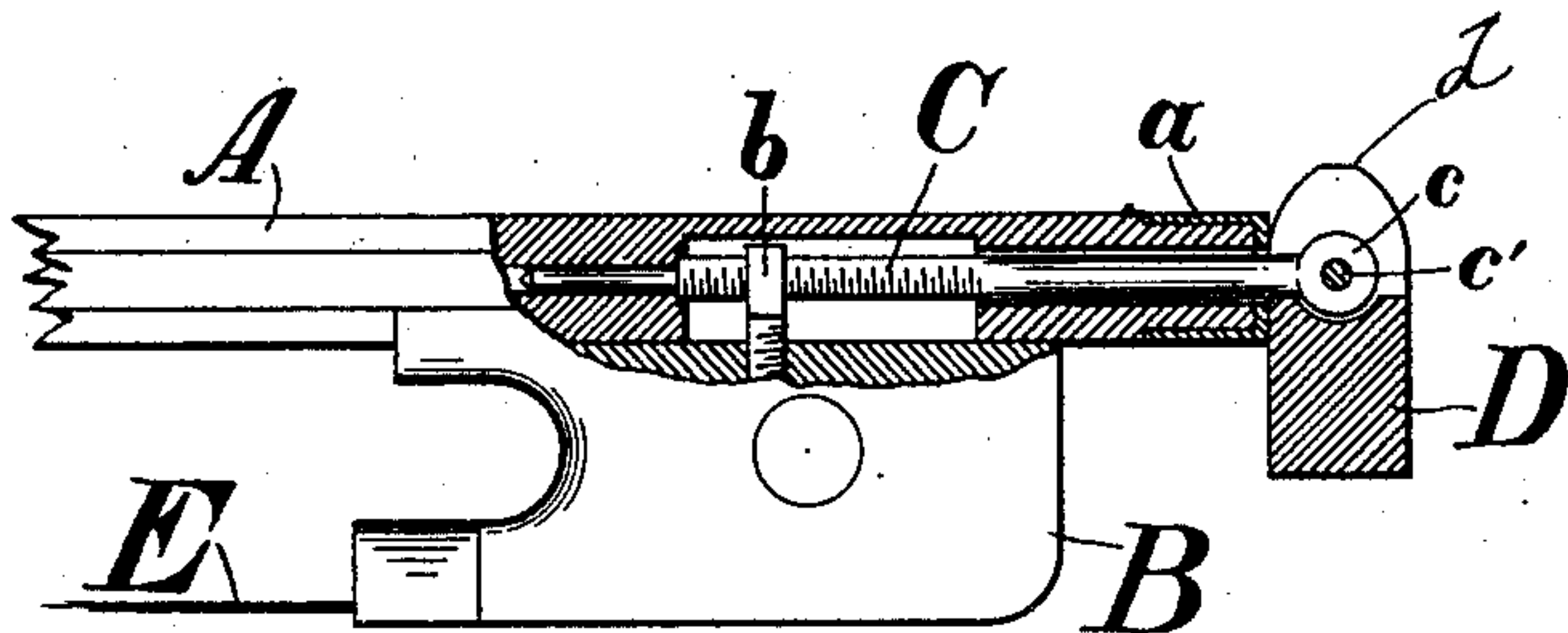


FIG. 3.

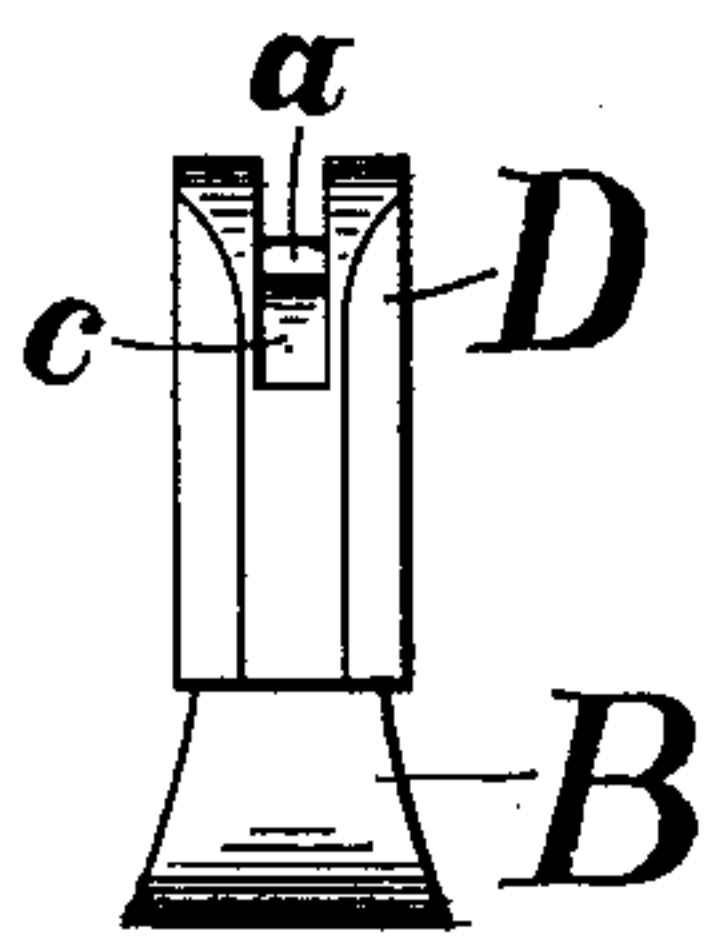


FIG. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

WINSLOW J. MURDOCK, OF CINCINNATI, OHIO.

VIOLIN-BOW.

SPECIFICATION forming part of Letters Patent No. 558,700, dated April 21, 1896.

Application filed September 12, 1895. Serial No. 562,247. (No model.)

To all whom it may concern:

Be it known that I, WINSLOW J. MURDOCK, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Violin-Bows, of which the following is a specification.

The object of my invention is to provide means to quickly strain or release the tension of the hair without wear on the threads of the screw-rod and frog-nut.

With this object in view my invention consists in the novel features illustrated in the accompanying drawings, hereinafter described, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a side elevation of the heel of a violin-bow provided with my improvements with the hair strained for use. Fig. 2 is a top view of the same. Fig. 3 is a view, partly in side elevation and partly in central longitudinal section, with the straining-tip thrown down to relax the tension of the hair. Fig. 4 is an end elevation of the view shown in Fig. 3.

The bow-staff A, frog B, frog-nut b, and screw-rod C are of ordinary construction, with the exception of the means of coupling the screw-rod C to the tip D, and need not, therefore, be specifically described.

In bows now in common use the outer end of the screw-rod C is rigidly secured in a tip or ferrule-head, the inner end of which bears against the ferrule a of the bow-staff. By turning the tip in one direction the frog is drawn toward the heel of the bow-staff and the tension of the hair E strained as when the bow is to be used in playing. When the ordinary tip is turned in the reverse direction, the tension of the hair E is relaxed. In practice it has been found that the constant straining of the hair and releasing the tension by turning the screw-rod C wears the engaging screw-threads of the screw-rod C and frog-nut b, so that the threads soon strip and render the bow worthless until the nut and screw-rod are replaced. I overcome this objection by my invention and accomplish the result by forming the outer end of the screw-rod into an eye c, forming the forward end d of the

tip cam-shaped, centrally slotting it to receive the eye c of the screw-rod C, and eccentrically coupling the screw-rod to the tip by transverse pin c'. By this means the frog may be drawn back by turning the tip D, when it is turned to the position shown in Figs. 3 and 4, to bring the hair nearly tight without straining it, and then by throwing the tip D parallel to the staff A the frog will be drawn back, straining the hair to the desired tension for use, and when the bow is to be put away the tip is again thrown down, relaxing the tension. It will thus be seen that when the tension is once properly adjusted the screw-rod need never be turned, and the consequent wear upon it, causing the stripping of the threads, is completely avoided.

I prefer to form my eccentric to strain and release the tension of the hair as nearly as possible in the form of the ordinary screw-tip now in common use, but do not desire to be limited to this specific form, as it may be varied in the mechanical details of construction without varying the principle or scope of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a violin-bow, the combination of the staff, the frog fitted to slide thereon, an eccentric tip to bear against the heel of the staff, and a rod to couple the frog and eccentric tip, whereby the tension of the hair is strained or released by turning said tip, substantially as shown and described.

2. The combination of the bow-staff, the frog fitted to slide thereon, the screw-eye secured in said frog, the screw-rod engaging the screw-eye and coupling it to the staff, said rod having an eye or journal-bearing at its protruding end, the tip having its inner end cam-shaped and longitudinally slotted to receive the protruding end of the screw-rod, and the journal-pin passed through the slotted lugs of the tip and eye of the screw-rod, substantially as and for the purpose described.

WINSLOW J. MURDOCK.

Witnesses:

HOWARD H. RALSTON,
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