

(No Model.)

F. SEARLE.  
VIOLIN BOW.

No. 471,028.

Patented Mar. 15, 1892.

Fig. 1.

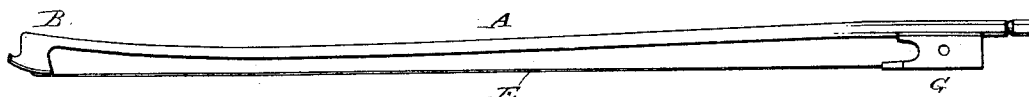


Fig. 2.

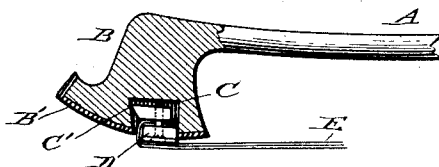


Fig. 3.

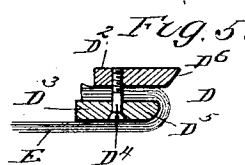
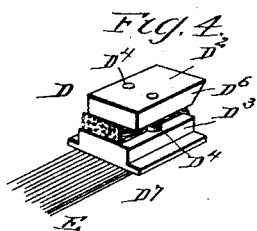
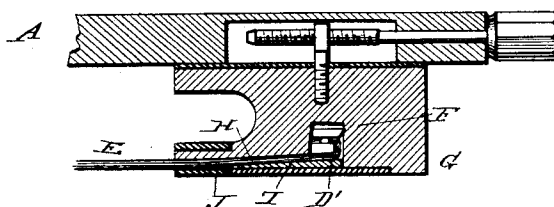
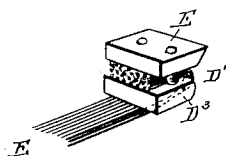


Fig. 6.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK SEARLE, OF VIRGINIA CITY, MONTANA.

## VIOLIN-BOW.

SPECIFICATION forming part of Letters Patent No. 471,028, dated March 15, 1892.

Application filed April 18, 1891. Serial No. 389,396. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK SEARLE, of Virginia City, in the county of Madison and State of Montana, have invented a new and Improved Violin-Bow, of which the following is a full, clear, and exact description.

The invention is an improved means for securing the hairs of a violin-bow to the handle or staff, and it is embodied in the construction and combination of parts herein-after described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is an enlarged sectional side elevation of the head of the bow. Fig. 3 is a like view of the handle end of the bow. Fig. 4 is a perspective view of the head-clamp with the hair in place. Fig. 5 is a sectional side elevation of the same; and Fig. 6 is a perspective view of the handle-end clamp, the hair being in place.

The improved violin-bow is provided on the outer end of its staff A with the usual head B, in which is formed a recess C, containing a clamp D, on which are secured the outer ends of the hair E, fastened at the other end to a clamp D', similar to the clamp D, and held in a recess F, formed in the handle-piece G, held adjustably in the usual manner on the lower end of the staff A. The means for adjusting the handle-piece G on the staff are similar to those now in common use, and a further description of the same is deemed superfluous.

Each of the clamps D and D' is composed of two plates D<sup>2</sup> and D<sup>3</sup>, between which the ends of the hair are placed, the said two plates D<sup>2</sup> and D<sup>3</sup> being fastened together by screws D<sup>4</sup>, so as to clamp the hair securely between the two plates D<sup>2</sup> and D<sup>3</sup>. The hair is usually passed under one of the clamping-plates, which is rounded off at one end at D<sup>5</sup>, so that the hair readily falls over this rounded-off end to pass under the plate D<sup>3</sup> to the next clamp. The other plate D<sup>2</sup> has its outer end formed with a bevel D<sup>6</sup>, adapted to abut against the outer inclined wall C' of the recess C, so that the clamp, which fits loosely in said recess, is securely held in place when a pull is exerted on the hair in using the bow when playing. The lowermost clamping-plate D<sup>3</sup> is also provided with a longitudinal

flange D<sup>7</sup>, resting on the sides of the metallic binder B', secured to the under side of the head B. In the clamp D' the flanges are omitted, and the hair, after passing under the clamping-plate D<sup>3</sup>, passes into a recess H, formed on the under side of the handle-piece G. Locking-plates I are secured in this recess on the under side of the hair, the said locking-plates being secured in place by the usual ring or sleeve J, through which also passes the hair. (See Fig. 3.)

It will be seen that by loosening the set-screws D<sup>4</sup> the plates D<sup>2</sup> and D<sup>3</sup> readily permit the removal of the hair or insertion of the same whenever desired, and when the hair is in place the set-screws are screwed up again, so that the two plates move toward each other and securely clamp the hair in place.

It is understood that two set-screws are used, between which the hair is passed, so that the latter is hemmed in or bound at the top and bottom and on the sides. The hair can be readily spread to the desired width and thickness by adjusting the screws, and the hair is retained in the proper position, as slack is utterly impossible on account of the hair being securely fastened in the clamps D and D'. It is understood that the hair is tightened by adjusting the handle-piece G in the usual manner.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a violin-bow, the combination, with the hairs E and the head B, having the recess C formed in its under side, of the hair-clamping plates D<sup>2</sup> D<sup>3</sup>, secured together and inserted and fitted in said recess, as shown and described, to operate as specified.

2. In a violin-bow, a clamp for fastening the end of the hair and comprising two plates between which the hair is placed, one of the plates being rounded off at one end for bending the hair over the same, and set-screws for fastening the plates together, the said set-screws being oppositely arranged to pass the hair between the two set-screws and between the two plates, substantially as shown and described.

FRANK SEARLE.

Witnesses:

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