(No Model.)

J. R. PERRY.

VIOLIN BOW.

No. 485,651. Patented Nov. 8, 1892.

Fig. 1.

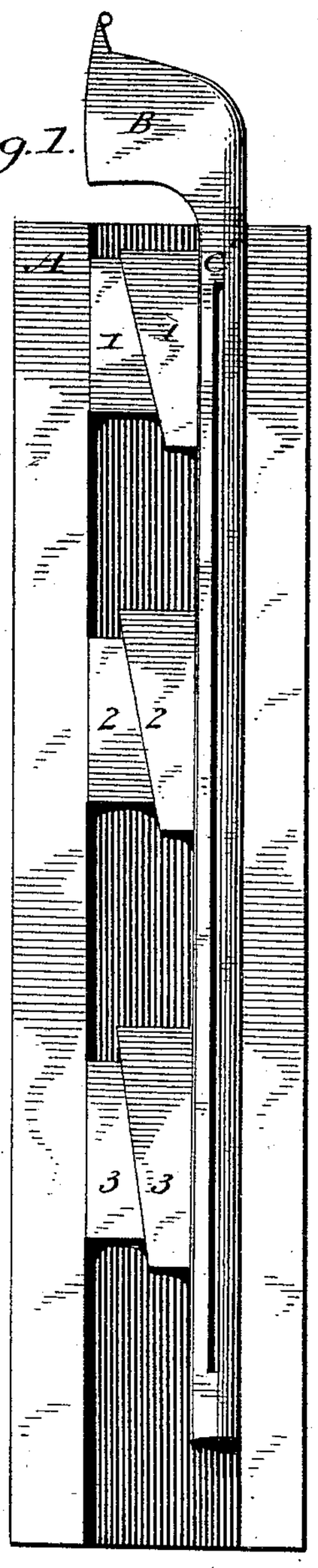


Fig. 6.

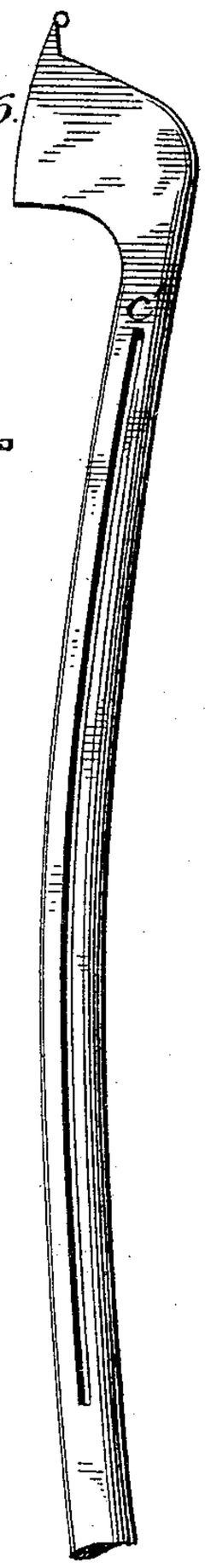


Fig. 3.

Fig. 5

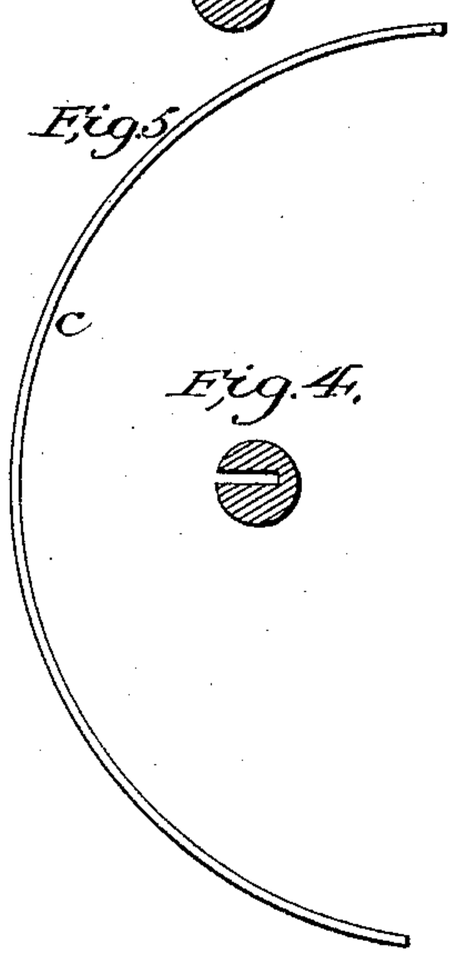
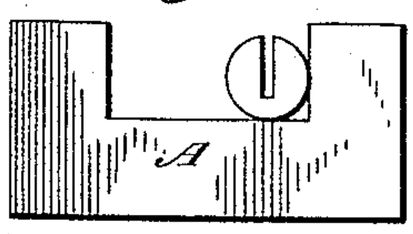


Fig. 4.

Fig. 2.



Witnesses.
Alex. Scott
Jas. W. Graham.

Inventor.
Joseph R. Perry

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH R. PERRY, OF WILKES-BARRÉ, PENNSYLVANIA.

VIOLIN-BOW.

SPECIFICATION forming part of Letters Patent No. 485,651, dated November 8, 1892.

Application filed June 15, 1892. Serial No. 436,852. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. PERRY, a citizen of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in the Construction and Adjusting of Violin-Bows; and I do hereby declare that the following is a full, clear, and exact description of the same, so that any one skilled in the department of the arts to which it belongs should be able to use and construct the same.

The object of my invention is to prevent violin-bows from becoming warped laterally by use, as is the case with bows as now constructed; also, to repair and straighten bows already so warped and restore them to their original shape; also, for the purpose of making a more durable and elastic bow which will retain its elasticity indefinitely. To accomplish these results, I refer to the figures in illustration as a part of this specification, shown and described by Figures 1, 2, 3, 4, 5, and 6.

Fig. 1 shows a frame A, made of wood or metal and provided with keys 1 1 2 2 3 3 for the purpose of keying the stick B into a straight line, which stick B shows the upper part of a violin-bow secured in the frame A. Fig. 2 is an end view of this frame, showing end of stick B. The frame may be held by screws instead of wedges. When the bow-stick B is permanently secured, as shown, I cut a groove into the side of the same to within about one-sixteenth of an inch of being through. It may be cut by a circular saw or may be routed out by means of a toothed gouge to any desired depth and may be run out the entire length of the bow or only so much as is necessary to reinforce the more elastic and curved part of the bow. Usually about eighten inches will be sufficient. Into this cut groove I place a steel plate C, properly tempered and suitable in size to correspond with the groove—preferably about one thirty-second part of an inch thick by about one-eighth part of an inch wide, as seen in Fig. 3, or less. It will be observed that the strip of steel C is placed so that it lies flatwise or horizontally when the bow is held ready for use in playing, the groove being cut out of the side of the stick B, as seen in Figs. 1 and 2. When the bow is held as used, the cut will be in the direction shown in Figs. 3 and 4. The steel strip C, Fig. 5, or any other suitable materials being placed within the groove cut out of the bow I then allow the stick to assume its normal curvature, as seen in Fig. 6, and into the side groove of the part not taken up by the steel strip C. I firmly glue a strip of veneer of suitable wood to make the bow assume its natural form, as it was before grooving out the side, and then finish up in the usual manner. The steel strip C is curved into almost a circle when finished, and when straightened out and forced into its place in the stick will add additional force and elasticity to the bow and produce the dancing effect so necessary in the use for performing the tremolo and other bow movements by the player. It will be seen that as the strip C lies within the stick it will be impossible to permanently bend the same laterally, and as the spring adds additional force to the curvature of the bow the hair can be made much more taut with an equal amount of springing of the stick. In lieu of steel tempered brass or even whalebone or other elastic materials may be used.

I do not confine myself in this improvement to cutting out a groove in the manner described, as the separate parts of a bow may be formed, admitting a recess or groove, the strip secured thereto, and the separate parts glued together afterward, thus substantially answering the same purpose; also, the spring may be placed in the bottom or on top of the bow and suitably secured thereto, although not forming so good a piece of work.

Having thus fully described my improvement, what I desire to secure by Letters Patent of the United States is—

1. In a violin-bow, the reinforcing-strip C, applied thereto, for the purpose named.

2. In a violin-bow, the strip C, inserted within the groove *c'*, in the manner and for the purpose specified.

3. The violin-bow suitably grooved, having a flat strip of steel or other suitable material C inserted therein, the remaining portion of said groove fitted by a wooden veneer inclosing the steel or other strip C within the body of the stick laterally, in the manner and for the purpose specified.

JOSEPH R. PERRY.

Witnesses:
WM. J. TREMBATH,
G. W. MOON.