

A. H. ELSMORE.
BOW FOR STRINGED INSTRUMENTS.
APPLICATION FILED JULY 3, 1909.

961,589.

Patented June 14, 1910.

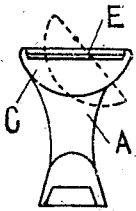


FIG. 3.

FIG. 5.

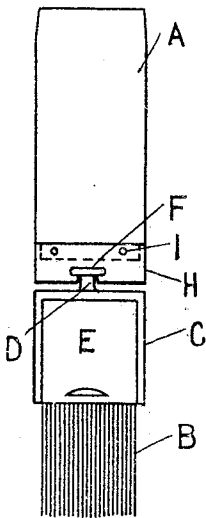


FIG. 1.

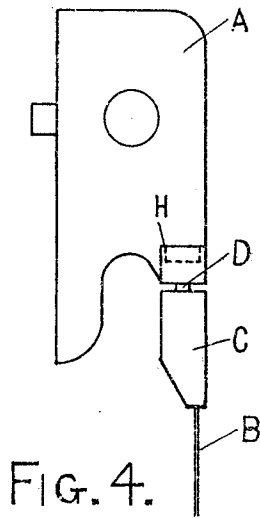


FIG. 4.

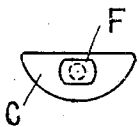
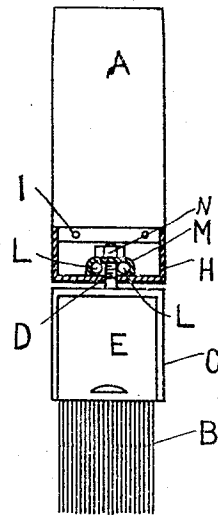


FIG. 2.

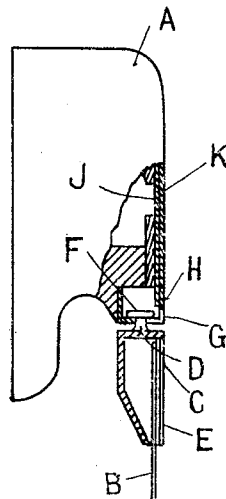


FIG. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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BOW FOR STRINGED INSTRUMENTS.

961,589.

Specification of Letters Patent. Patented June 14, 1910.

Application filed July 3, 1909. Serial No. 505,866.

To all whom it may concern:

Be it known that I, ALFRED HENRY ELSMORE, a subject of the King of Great Britain and Ireland, residing at 32 Tideswell road, Eastbourne, in the county of Sussex, England, have invented a new and useful Improvement in Bows for Stringed Instruments, of which the following is a specification.

My invention relates to bows for use in playing upon stringed instruments and it has for its object means whereby the position or inclination of the hair portion thereof may be altered or adjusted to suit the will of the player. It is common knowledge that different bowing effects are obtained according among other things as to whether the point or the heel end is used. I find the possibility of varying the angle of inclination of the hair enables a greater variety and more thoroughly satisfactory execution of the desired expression to be attained. The socket is preferably so pivoted as to be quite loose so that it will automatically adjust itself according to the pressure put upon the hair at the frog end so as to keep the latter flat or nearly broadside on to the strings at whatever angle the bow be canted to.

In the drawings:—Figure 1 is an elevation of the frog of a bow constructed in accordance with my invention and looking from the hair side. Fig. 3 is an end view of Fig. 1 and Fig. 2 is an end view of the socket hereinbefore referred to. Fig. 4 is an elevation at right angles to Fig. 1. Fig. 5 is a similar view to Fig. 1 but showing a modification, parts being in section. Fig. 6 is a sectional elevation hereafter described.

Referring first to Figs. 1 to 4. A is the frog of the bow and B is the hair. Instead of the end of the hank of hair being fastened direct to the frog it is according to my invention attached to a socket C which is pivotally attached to said frog by a pivot D. E shows the slide by which the hair at this end is secured in the socket C, a wood wedge being provided and used as usual for this purpose. The pivot D has a head F (see Figs. 1, 2 and 6) and this has flats on it as shown whereby it may readily be slipped into place so as to engage a slot G. For this purpose the socket is turned at right angles to normal position when being inserted or withdrawn. I show the slot G as made in a metal cap H and in this example

this cap is fixed to the frog A by pins or screws I. The slot G is formed in two sides of the metal cap H. The head F enters the cavity in the frog A through the slot G and bears against the other side of the cap H which contains the slot G. The slot G on the entrance side of the cavity H must be large enough to receive the head F as shown in Fig. 6 or the head composed of the ball race M and the nut N, as shown in Fig. 5.

Referring to Fig. 6 the cap H is shown as attached to the frog A by means of a tongue J of metal made integral with said cap and kept in place on said cap by means of the usual slide or strip K (generally made of mother of pearl, or the like).

In Fig. 5 I show my device as having ball bearings so that the socket C will freely swivel in use. L are the balls, M is a ball race or cup and N is a lock nut or pinching nut on pivot D.

It should be understood that I do not wish to be confined to either way of attaching the metal cap H to the frog A but show two convenient modes. A similar swiveling socket may obviously be applied to the point of the bow either instead of or in addition to the one at the nut end.

I claim.

1. A bow for stringed instruments comprising a frog, a hank of hair, and a socket holding one end of the hank of hair and pivotally connected to said frog, whereby the transverse inclination of the hair relative to the frog may be varied.

2. A bow for stringed instruments comprising a stick, frog, point, hair and a pivoted socket intermediate between said hair and frog whereby their relative angles may be varied.

3. The combination in a bow of a hank of hair and a socket holding one end of the hank of hair, a metal cap affixed to the bow and a pivot connecting the said socket and the said cap, substantially as described.

4. A bow for stringed instruments comprising a hank of hair, a socket holding one end of the hank of hair, a metal cap affixed to the bow, a pivot connecting the said socket and the said cap, a head on said pivot located within said cap and ball bearings between said head and the interior of said cap, substantially as described.

5. A bow for stringed instruments com-

prising a frog having a slot therein, a metal cap on said frog, a hank of hair and a socket holding one end of the hank of hair and a pivot and a head therefor connecting said
5 socket and said metal cap, said head having flats thereon whereby it may be placed in position in or withdrawn from said slot

in said cap only when turned so as to aline therewith, substantially as described.

ALFRED HENRY ELSMORE.

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