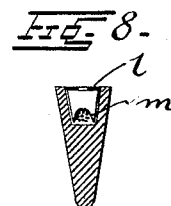
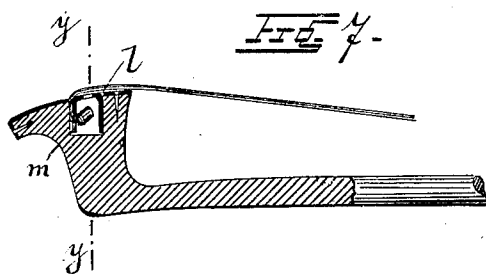
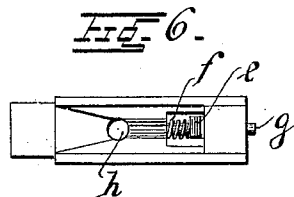
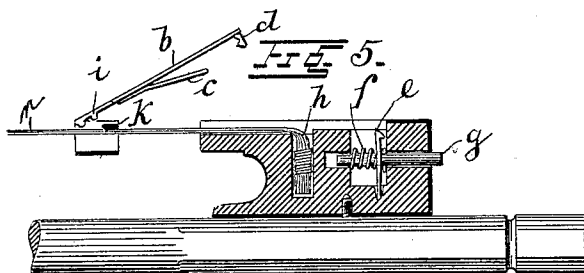
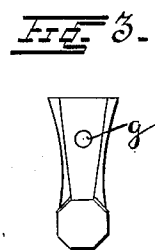
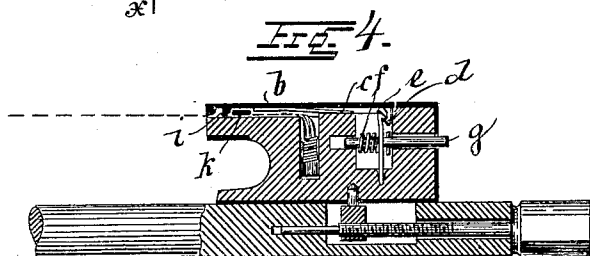
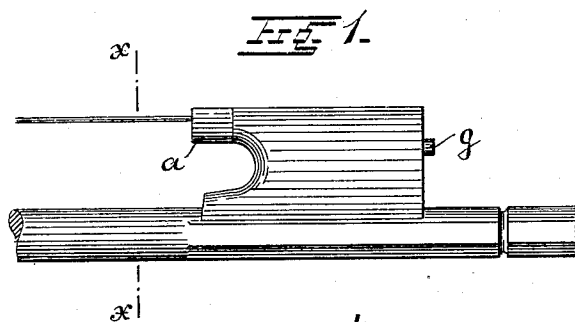


(No Model.)

P. STARK.
BOW FOR STRINGED INSTRUMENTS.

No. 551,058.

Patented Dec. 10, 1895.



Witnesses:
Paul Föllmer
H. Bantze.

Inventor:
Paul Stark
by W. Bantze
Attorney

UNITED STATES PATENT OFFICE.

PAUL STARK, OF MARKNEUKIRCHEN, GERMANY.

BOW FOR STRINGED INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 551,058, dated December 10, 1895.

Application filed February 8, 1894. Serial No. 499,545. (No model.)

To all whom it may concern:

Be it known that I, PAUL STARK, a subject of the King of Saxony, residing at Markneukirchen, in the Kingdom of Saxony and German Empire, have invented certain new and useful Improvements in Bows for Stringed Instruments, of which the following is a full, clear, and exact description.

The present invention relates to bows for stringed instruments; and it consists in a device for fastening the ends of the string of the bow in position on the same, and in order to make the present invention more easily intelligible reference is had to the accompanying drawings, in which similar letters denote similar parts throughout the several views.

Figure 1 is an elevation of the end of a bow; Fig. 2, a section on line *x x*, Fig. 1; Fig. 3, an end elevation of the bow; Fig. 4, a longitudinal section through the device for attaching the string; Fig. 5, a similar section showing the fastening-catch detached. Fig. 6 is a top view of Fig. 5; Fig. 7, a sectional elevation of the opposite end of the bow; Fig. 8, a section on line *y y* in Fig. 7, and Fig. 9 a plan view of Fig. 7.

Referring to Figs. 7, 8, and 9, the string *n* is attached to the upper end of the bow by means of a U-shaped clamp *l*, having a slot *m*, in which the ends of the horse-hair forming the string of the bow are placed. On inserting the clamp with the ends of the string in the slot of the same into the orifice provided for it at the upper end of the bow the string will be found to be sufficiently tightly held in place at this end.

The device provided for clamping the lower end of the string into the slide of the bow consists of the following parts: The slide is bored at *h* for the reception of the ends of the string which have been previously inserted through the sleeve *k* of the hinged clamp *b*. This sleeve is adapted to fit and slide over the end of the slide and has pivotally connected thereto the clamping-arm *b*, having a transverse rib *i*, by means of which the string is pressed down onto the top of the slide when the clamp-

ing-arm is in position on the same. A catch *e* is mounted in the slide having a spring *f* and rod *g*, said catch serving to hold down the arm *b* when it is in position on the slide.

The operation of the device is very simple. After the end of the string has been inserted into the hole *h* of the slide the sleeve *k* is passed onto the end of the said slide and the arm *b* depressed until the catch *d* on the end of the same snaps into the spring-catch *e*, by which it will be retained in position, holding the string *n* fast by the transverse rib *i*. In order to loosen the string, it is only necessary to depress the button or rod *g*, when the catch *e* will be removed from the catch *d*, owing to the shoulder of the rod *g* pressing the former back. As soon as the catch *d* has been released, the arm *b* will be pressed upward by the spring *c* on the under side of the same.

I claim as my invention—

1. The combination of an arm *b* pivotally attached to a sleeve *k* adapted to fit and slide onto the end of the slide, and having a rib *i* to retain the string of the bow and means for retaining and releasing the arm *b* from the said slide substantially as described.

2. In combination with the arm *b* pivotally attached to the sleeve *k*, a cross rib *i* on said arm and a catch *d* at the farther end of same, a spring catch *e* mounted in the said slide and means for actuating the said catch such as a rod *g* substantially as described.

3. In combination with a bow the attachment for the upper end of the string, consisting of the U-shaped clamp *l*, having slot *m* for the reception of the ends of the horse hair, and a corresponding recess formed in the upper end of the bow into which said clamp fits in the manner and for the purpose substantially as described.

In witness whereof I hereunto set my hand in presence of two witnesses.

PAUL STARK.

Witnesses:

OSCAR MÜLLER,
GUSTAV GEIPAL.