N. R. STREETER.

Bow.

No. 213,851. Patented April 1, 1879.

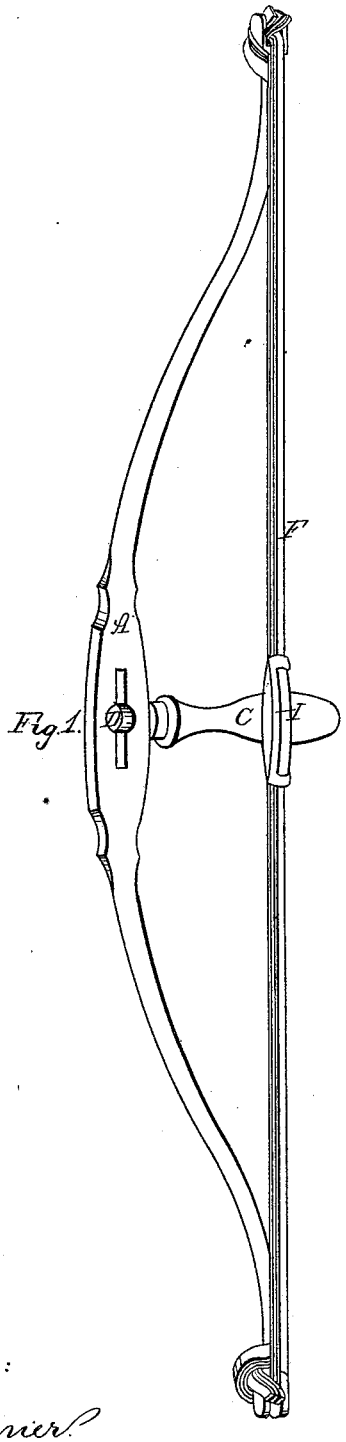

Fig. 1.

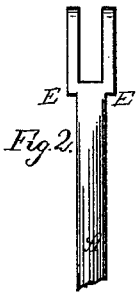

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

NELSON R. STREETER, OF GROTON, NEW YORK.

IMPROVEMENT IN BOWS.

Specification forming part of Letters Patent No. **213,851**, dated April 1, 1879; application filed February 10, 1879.

To all whom it may concern:

Be it known that I, N. R. STREETER, of Groton, in the county of Tompkins and State of New York, have invented certain new and useful Improvements in Bows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in bows; and it consists, first, in a rigid metallic bow provided with a handle, and having its ends forked for the attachment of a rubber string for shooting the arrow.

It further consists in a sheet-metal protector, for keeping the end of the arrow from injuring the rubber cord or string, all of which will be more fully described hereinafter.

Figure 1 is a perspective view of my invention. Figs. 2 and 3 are details of the same. Fig. 4 is a view of the arrow.

A represents a rigid bow, that is made of steel or other suitable material, and which has the handle C secured to its edge at the center. This handle serves not only to carry the bow around, but also to hold the bow while the arrow is being shot, and thus prevents the recoil of the string, rubber, or other material from hurting the hand.

Through the center of the bow is made an opening, D, through which the arrow is passed while being drawn back to be shot. Owing to the slits extending out from the sides of the center hole, the feather or plume with which the arrow is winged slips easily through without being injured in the slightest.

Each end of the bow is made bifurcated, as shown, and just back of this fork are formed the shoulders E, behind which the string, cord, or rubber band F is fastened. These shoulders are made square, as shown in Fig. 2, so that either a rubber or any other kind of a string can be quickly fastened behind them without the slightest danger of slipping off. Where the shoulders are not used, or there is a simple rounded enlargement only on the end of the bow, it is always necessary to tie the string, or otherwise fasten it, as there must be some positive obstruction to the string slipping off. Where the shoulders are made as here shown, all necessity of tying or looping the string is done away with, for by catching behind the shoulders the tightness of the string will make a frictional hold or contact sufficient. Instead of using a common cord or string, as is generally used in toy bows, I take a number of bands of rubber, and after wrapping the ends once around the bow just back of the shoulder the bands are brought around over the ends of the bow and made to catch in the notch or recess, as shown. By this method of fastening, the bands are made to hold themselves in position by their own friction and elasticity.

In order to prevent the end of the arrow from injuring the rubber band or string, a sheet-metal protector, I, is passed over the string to that point against which the end of the arrow bears. This protector is open at its rear side, and made sharp on its inner edge, at *x*, so as to fit the groove in the end of the arrow, and serves not only to protect the string from injury, but also as a means for getting a better hold on the string.

The arrows are tipped on their outer ends with sheet metal, as shown, and then the inner ends are slit by means of a saw, so as to allow the feather to be inserted, and then the ends are nailed or otherwise fastened together, so as to permanently hold the feather in position; and on the end of the arrow is placed a metal cap, L, having a groove made in its end corresponding to the shape of the center of the piece I. By this means a very cheap, strong, straight arrow is produced. Should the feather or plume become injured in any way, it is only necessary to remove the cap upon the slit end of the arrow, remove the injured feather, and replace it by a new one.

By means of the construction above described, the bow is made much more easy to handle, and a much more powerful pull can be exerted upon it without in any degree hurting the left hand, and when the bands recoil there is not the slightest possibility of the piece I coming in contact with the hand.

Another advantage gained by the use of the piece I is that there is not so much danger of the string slipping from the end of the arrow, and thus having the arrow go off accidentally.

Having thus described my invention, I claim—

1. The bow A, having its ends forked, and the square shoulder E on each side back of the forks, behind which the string or band F will catch, substantially as shown.

2. The bow A, having the handle C secured to it, and having its ends forked and provided with the shoulders E for the band or string to catch behind, substantially as described.

3. The sheet-metal protector I, applied to the band or string F, and having its inner edge, *x*, made sharp, so as to catch in the groove in the arrow, substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of February, 1879.

NELSON R. STREETER.

Witnesses:
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HILAND K. CLARK.