(No Model.)

H. C. PETERS.

BOW.

No. 586,713. Patented July 20, 1897.

FIG. 1.

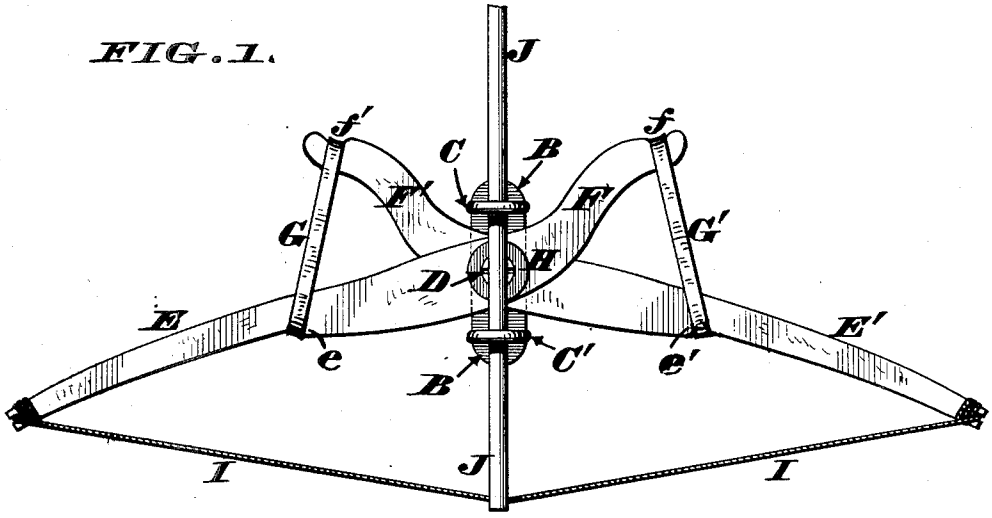


FIG. 2.

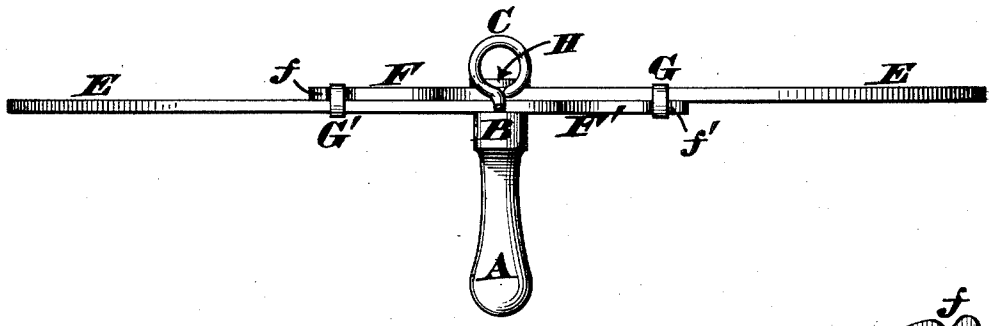


FIG. 3.

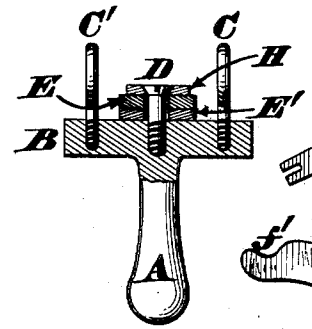
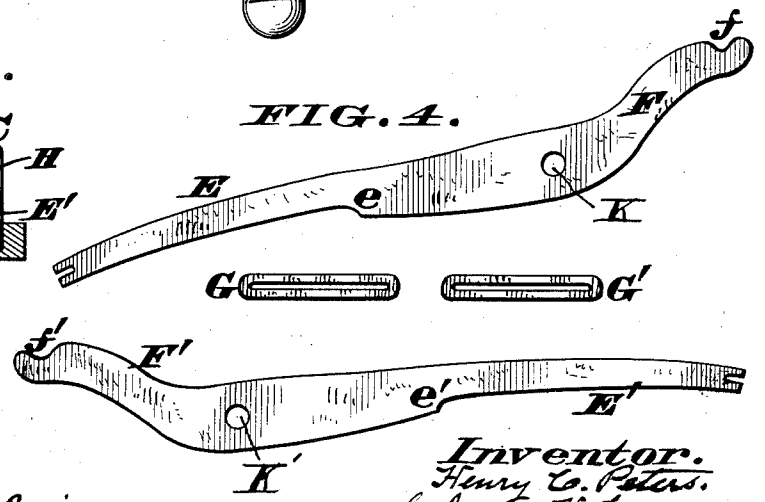


FIG. 4.



Attest.
Ida Heitz
Samuel M. Quinn.

Inventor.
Henry C. Peters.
by Parkes N. Layman.
Atty.

UNITED STATES PATENT OFFICE.

HENRY C. PETERS, OF NORTH MIDDLETOWN, KENTUCKY.

BOW.

SPECIFICATION forming part of Letters Patent No. 586,713, dated July 20, 1897.

Application filed March 27, 1897. Serial No. 629,484. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. PETERS, a citizen of the United States, residing at North Middletown, in the county of Bourbon and State of Kentucky, 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, reference being had to the annexed drawings, which form a part of this specification.

The object of my invention is to furnish a bow whose arrow-impelling force can be readily increased or diminished, as occasion requires, the construction of the instrument being such as to enable its convenient dismemberment, so as to be shipped in a very compact or "knockdown" condition, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a plan of my improved bow, an arrow being inserted within its guides and the bowstring being pulled back far enough to impart considerable force to the instrument. Fig. 2 is a front elevation of said bow, the arrow seen in the previous illustration being omitted. Fig. 3 is a vertical section of the bowstock, taken in the plane of its guides and pivot. Fig. 4 is a plan showing two of the bow-levers and their tension-bands separated from the stock of the instrument.

When arranged to be used as a crossbow, the stock of the instrument includes a handle A, having at top a horizontal bar B, provided near its ends with ring-eyes C C', that serve as guides for the arrows. Furthermore, this stock has tapped in it a screw D, that serves as a pivot for a pair of precisely similar levers E F E' F', of any suitable size, shape, and material, although they are usually sawed out of thin wooden strips and have practically the curved form shown. The longer portions E E' of these levers have, respectively, shoulders *e e'*, while their shorter portions F F' are notched near their ends, as at *f f'*.

G G' are india-rubber bands capable of being engaged with these shoulders and notches in the manner shown in Fig. 1.

H is a disk washer having a countersunk hole for the reception of the head of screw D.

I is a bowstring united to the ends of levers E and E'.

J is a portion of an arrow to be shot from the bow.

K in Fig. 4 is a perforation in the lever E, and K' is a similar hole in the other lever, E', these two openings being for the free passage of the pivot-screw D.

In fitting up this instrument the lever E' F' is first laid upon the bar B, and then the other lever, E F, is crossed over said lever E' F', and the two are pivoted to said bar by the screw D, which screw passes freely through the unthreaded perforations K K' of said levers and then engages with said bar. The elastic bands G G' are next applied to the shoulders *e e'* and notches *f f'* in the manner shown in Fig. 1, after which act the bowstring I is fastened to the levers. The ring-eyes C C' are screwed into the bar B in such a position as to guide an arrow in a path parallel to said bar, and then the instrument is ready to be used in the following manner:

An arrow J is inserted in the guides C C', and the rear or notched end of it is engaged with the string I, which latter is now pulled back as far as may be necessary to impart the desired impelling force to the bow. The string is then suddenly liberated and the arrow discharged through the guides C C'. It is evident that the force of this bow does not depend upon the length or stiffness of the levers E F E' F', but is determined solely by the strength or elasticity of the india-rubber bands G G', which bands may be doubled two or three times for the purpose of increasing the power of the instrument. It is also evident that a number of these bands of various sizes may be furnished with each bow, so as to enable the impelling force to be gaged to suit circumstances. Again, the bow may be made on a large scale for field purposes or it can be so constructed as to serve as a toy for indoor use. In a very simple form of the bow the stock A B and guides C C' can be omitted and the two crossed levers be pivoted together by a rivet or bolt and yet operate by a pair of elastic bands in the manner above described. The instrument when thus constructed would be used as an ordinary long-bow, the archer grasping it near the pivoted junction of the two levers and using this hand as a guide for the arrows. Finally, by slip-

ping the bands G G′ from off the levers and then unscrewing the pivot D the various component members of the bow can be separated from each other and packed together in a very small compass, thereby enabling the instrument to be shipped in a knockdown condition.

I claim as my invention—

1. A bow consisting of a pair of crossed levers, jointed together, and flexible bands applied to said levers for actuating the same, in the manner described.

2. A bow consisting of a stock; a pair of crossed levers pivoted thereto; and flexible bands engaged therewith and actuating said levers, in the manner described.

3. A bow consisting of a stock provided with an arrow-guide; a pair of crossed levers pivoted to said stock; and flexible bands that engage with said levers and actuate them, in the manner described.

4. A bow consisting of the stock A B, provided with guides C, C′, a pair of shouldered and notched levers E *e* F *f*, E′ *e*′ F′ *f*′, crossed in the manner shown, and pivoted upon said stock at D; and a pair of flexible bands G, G′, engaged with said levers, in the manner described, and for the purpose stated.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY C. PETERS.

Witnesses:

KIRBY S. TRIMBLE,

J. G. ROGERS.