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ARCHERY SIGHT

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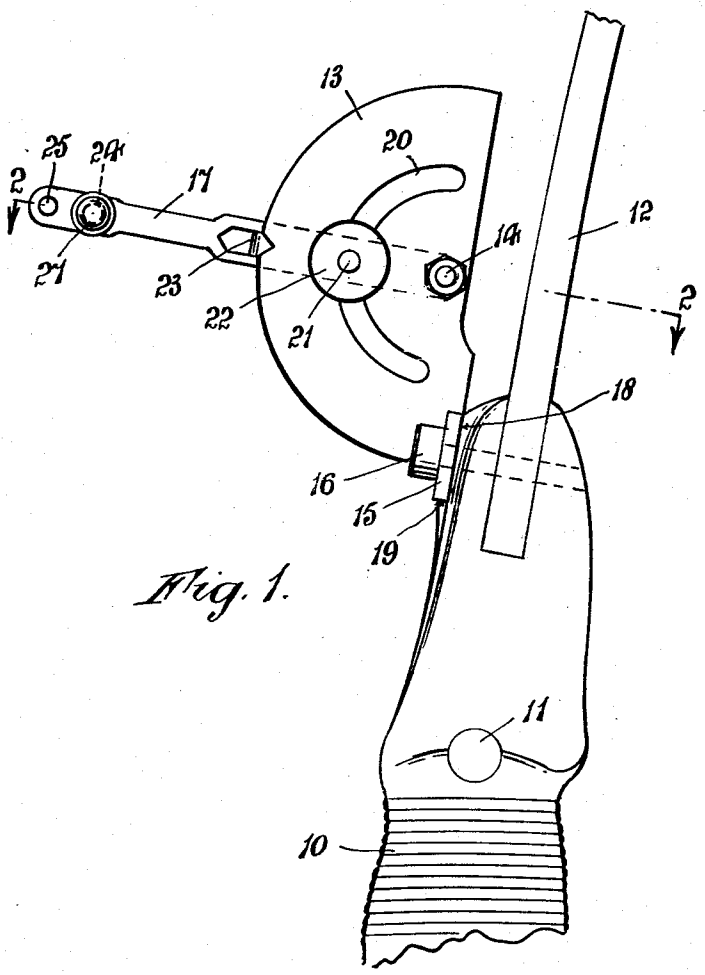

Fig. 1.

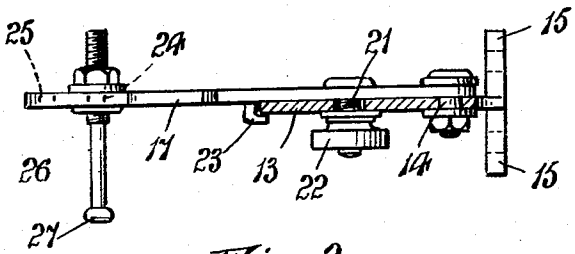

Fig. 2.

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ARCHERY SIGHT

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3 Claims. (Cl. 33—46)

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This invention relates to sights for use in connection with the aiming of arrows when shot from a bow either in target shooting or in hunting; and has for its object to provide means of a nature particularly adapted to facilitate the setting of a sighting point to meet the peculiar requirements of any particular marksman to suit his own manner of shooting and the type of bow or arrows which he is in the habit of using.

The general and various methods of sighting involving, for instance, point of aim and point of loose, are well known to those familiar with this art and will not be discussed at length herein, it being thought sufficient to mention that any mechanical sight should be capable of being set or coordinated not only with the actual target distances but with the aiming habits of the archer.

Furthermore, as the limbs of the bow are movable by flexion relative to the handle, it is highly desirable that any sight be free of any influence by such movement of the proximate bow limb, so that it is an important object of the present invention to provide a sight which is mounted solely upon the rigid handle and is free of disturbing influence of any flexible part of the bow.

A further object of the invention is to provide a sighting point or button which is adjustable to and between upper and lower positions about a single fixed location point, which location point, in turn, is rigidly maintained in a fixed position relative to the handle of the bow and independently of either limb of the bow.

Still further, the said invention is characterized by the provision of a sight arm, swingable vertically and forwardly of the bow on a pivot which is fixedly carried by the handle of the bow and which is free of any influence by the flexing movement of the limbs of the said bow.

The invention still further contemplates the provision of a flat plate firmly secured at its lower end portion to the rigid handle of the bow and freely spaced from the upper flexible limb of the bow, said plate lying in a true plane extending through both the bow and the bow string, a sight arm being pivoted on said plate and swingable in a vertical plane over the face of the plate whereby calibrations determined by trial by the archer may be marked on the plate for future reference, a laterally adjustable sighting point or button being carried by the outer end portion of said arm.

Still further objects or advantages additional or subsidiary to the aforesaid objects, or resulting from the construction or operation of the invention as it may be carried into effect, will become apparent as the said invention is hereinafter further disclosed.

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In carrying the said invention into effect, I may adopt the novel construction and arrangement of parts hereinafter described, by way of example, having reference to the accompanying drawing, wherein:

Figure 1 is a side elevation of part of an archery bow showing the adjustable sight of the present invention attached thereto; and

Figure 2 is a top plan view of the said sight, with the plate thereof shown in cross section taken on a plane indicated by the line 2—2 in Figure 1.

Similar characters of reference indicate similar parts in both figures of the drawing.

The handle element 10 of the bow is shown as being equipped with the usual arrow rest 11, and the said handle has extending from its upper end the flexible limb 12 as in a steel bow. In an all-wood bow the limbs may be integral with the handle, but it is intended that the feature of mounting the sight so that it is free of any flexible portion or limb of the bow is intended to be maintained regardless of the particular type of bow to which the sight may be applied.

13 is a flat plate, or semi-circular form in outline, provided with a stud or pivot 14 at the center of its curved outline and further provided at its lower end with laterally extending lugs 15 for attachment to the upper end portion of the handle 10, as by means of screws 16, although the actual manner of attachment is one of choice or convenience as will be well understood.

Care should, however, be exercised in attaching the plate to the handle in order to ensure that the said plate will lie in a true plane extending through both the bow and the bow string (not shown) in order that a sight arm 17, which is swingably mounted on the said pivot 14, may be adjusted truly in the same plane in which the bow is drawn in shooting. Where the type of mounting shown is used, the face of the upper end of the handle 10 may be squarely recessed to provide a flat surface at 18 and a locating shoulder 19 to determine the correct positioning of the said plate 13 on the bow.

The plate 13 has formed therein an arcuate slot 20 through which a stud 21 carried by the arm 17 and provided with a lock nut 22 extends; and the said arm is further provided with an indicator 23 to ride the semi-circular periphery of the plate.

Toward the outer end of the said arm 17 are shown as an example, two holes 24 and 25 in

either of which may be secured a cross pin **26**, which pin is threaded for adjustment as to the extent which the point or button **27** may project laterally of the general plane of the sight. The purposes of this adjustment to meet lateral variations of arrow flight due to wind, type of arrow being used or other factors will be readily recognized by those familiar with archery and therefore, will not be discussed in detail herein.

It will be seen that the arm **17** of this sight may be of any convenient length, and that the actual lineal sweep of the adjustment at the arcuate slot **20** is greatly multiplied at the pin **26**, due to the difference of radius. This difference in radii may be varied, if desired, by simply moving the said pin to a hole closer to or further from the pivot **14**.

By whatever mechanical means the variation of the radius of the arc of movement of the pin **26** is accomplished, it permits the user to not only vary the overall range of effecting sighting, but to increase or decrease the extent of actual adjustment required per unit of yardage; and this variation from finer to coarser adjustment will meet the desires of different archers.

The device described may be of very robust construction without loss of ease and smoothness in the swinging adjustment of the sight arm **17**, and the sight arm **17** may be readily and firmly locked in positions of adjustment without danger of disturbing the adjustment in doing so.

An important feature of the described arrangement is the fact that the plate is entirely free of the flexible portion of the bow limb **12** so that the sight arm **17** is in no way moved from its setting by the bending of the said limb **12** when the bow is drawn. The mounting of the plate at a single point on the rigid handle also provides a single point of location for all the elements of the sight and so permits accuracy of mounting to be secured with simplicity.

In using the device, the archer determines the positions of arm adjustment by a series of trials, marking the target distances peculiar to his own technique on the face of the plate so that the indicator **23** may thereafter be set from time to time to the calibrations which have been so marked on the plate.

This invention may be developed within the scope of the following claims without departing from the essential features of the said invention, and it is desired that the specification and drawing be read as being merely illustrative of a practical embodiment of the same and not in a strictly limiting sense.

What I claim is:

1. For attachment to an archery bow having a rigid handle and a flexible limb extending upwardly from said handle, a sighting device comprising a flat plate, attachment means at the lower end of said plate for securing it to said handle, said means spacing said plate from the front face of said limb and holding the surface of said plate in a true plane in common with the plane through which the bow-string is drawn in use, a vertically swingable sight arm pivoted on said plate, a sight point carried by the outer end of said arm, and locking means for securing said arm in positions of vertical adjustment.

2. For attachment to an archery bow having a handle and a limb extending upwardly from said handle, a sighting device comprising a flat plate, attachment means for securing said plate to said handle, said means holding the face of said plate in a true plane in common with the plane through which the bow string is drawn in use, a vertically swingable sight arm pivoted on said plate for adjustment angularly with respect to the line of sight, a sight point carried by the outer end of said arm, means permitting adjustment of said sight point along said arm to various distances from inner pivotal end of said arm, and locking means for securing said arm in positions of vertical adjustment.

3. For attachment to an archery bow having a handle and a limb extending upwardly from said handle, a sighting device comprising a flat plate, attachment means at the lower end of said plate for securing it to said handle, said means spacing said plate from the front of said limb and holding the face of said plate in a true plane in common with the plane through which the bow string is drawn in use, a vertically swingable sight arm pivoted on said plate, a sight point carried by the outer end of said arm, means permitting adjustment of said sight point along said arm to various distances from the inner pivotal end of said arm, and locking means for securing said arm in positions of vertical adjustment.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
629,670	Durrenberger	July 25, 1899
1,340,453	Lera	May 18, 1920
1,847,593	Cameron	Mar. 1, 1932
2,001,470	Nyvall	May 14, 1935
2,163,503	Tate	June 20, 1939
2,542,501	Fredrickson	Feb. 20, 1951
2,545,454	Fredrickson	Mar. 20, 1951
2,559,927	Beloungy	July 10, 1951
2,562,187	Hamm	July 31, 1951