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Allen

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[54] **BOW-SIGHT**

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[52] **U.S. Cl.**.....**33/265**

[51] **Int. Cl.**.....**F41g 1/00,** F41g 5/00

[58] **Field of Search**.....33/46.4, 265

[56] **References Cited**

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[57] **ABSTRACT**

A simple but effective bow-sight featuring a broad bow hugging base, a pivoted arm, and a sighting screw arranged transverse to said arm. The arm and said base having a functional calibrated relation enabling highly accurate sighting and substantially instantaneous correction of range, as needs require.

3 Claims, 4 Drawing Figures

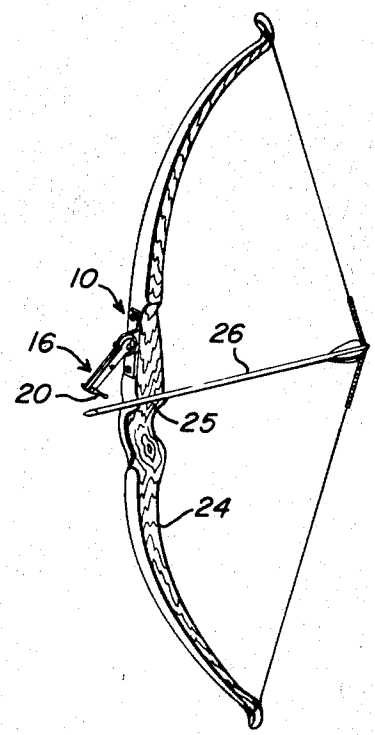


FIG-1

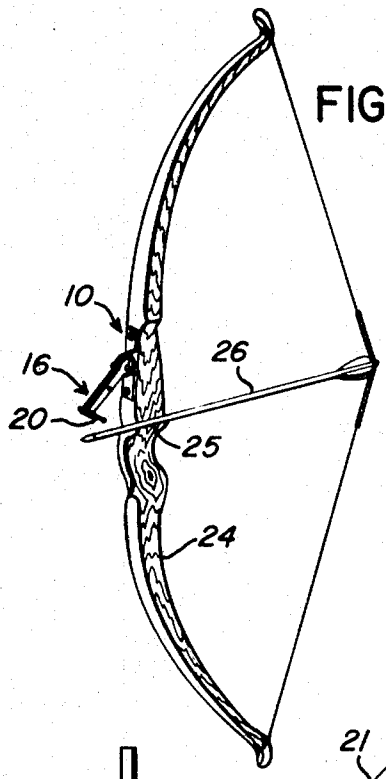


FIG-2

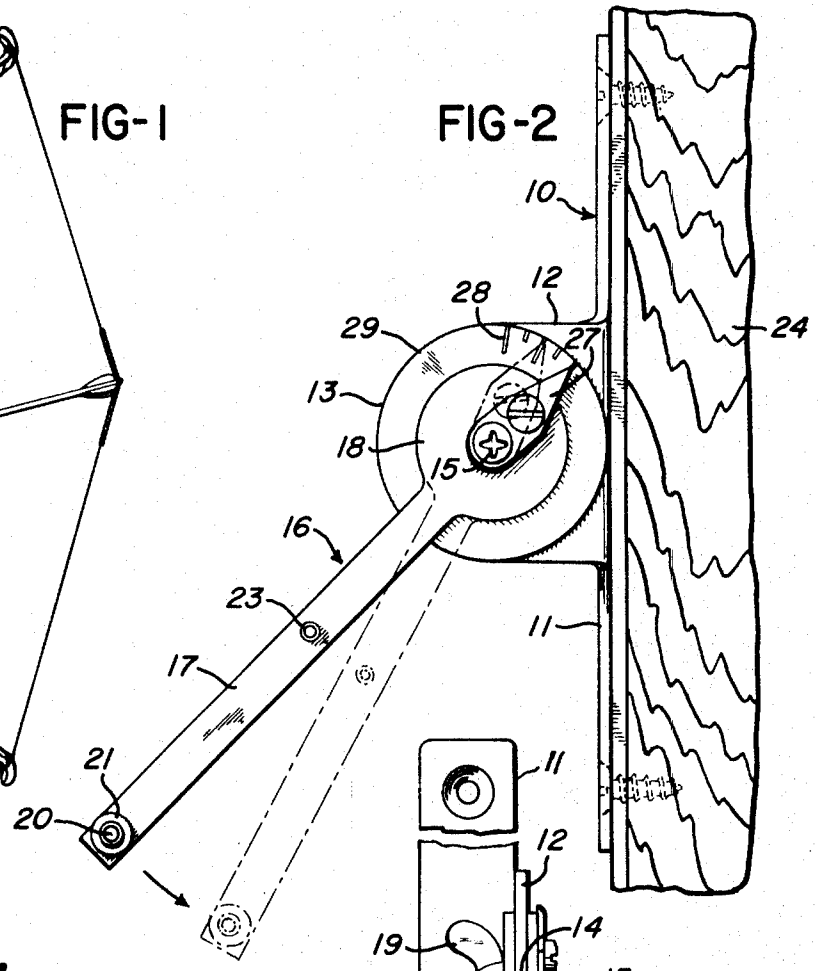


FIG-3

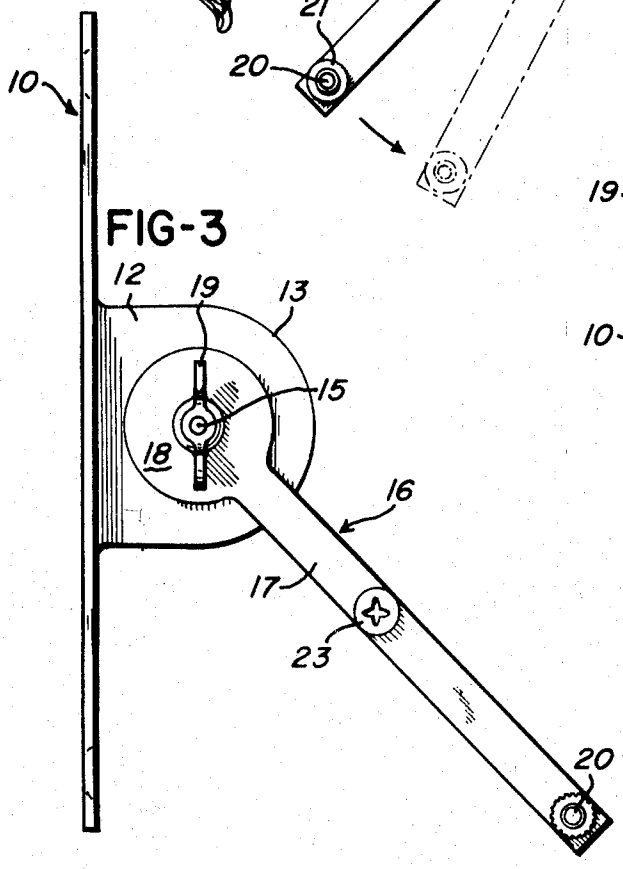
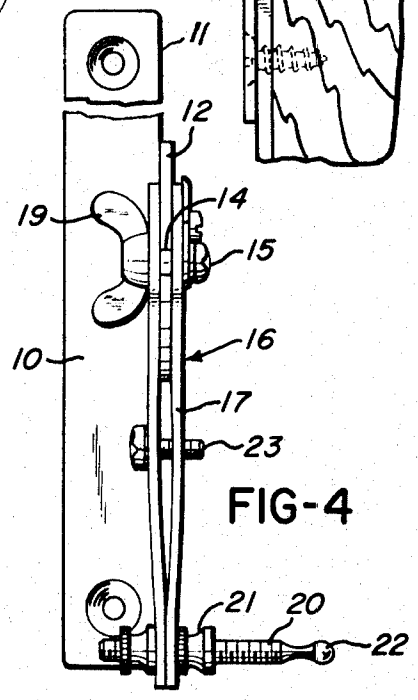


FIG-4



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BOW-SIGHT

The present invention is particularly advantageous in the field of archery. It provides a bow-sight of exceedingly simple character affording a high degree of accuracy at a minimal cost.

Archery has been practiced for centuries. Over this entire period of time there have been many bow-sights. They have had various shape and form and offered varying degrees of utility. None, however, have combined simplicity of construction, ease of use and offered a novice the high degree of accuracy as here provided by the present invention. This is particularly important in view of the ever-increasing interest in archery as a sport. The novice is now the rule rather than the exception and from this stems the importance of the present invention.

It is therefore the primary object of the invention to provide a bow-sight which is economical to fabricate, more efficient and satisfactory in use, adaptable to a wide variety of applications and unlikely to malfunction.

It is another object of the invention to provide a sight which may be simply manipulated, yet produce a high degree of accuracy.

A further object of the invention is to provide a unique bow-sight incorporating a unit sighting element which is both laterally and pivotally adjustable.

An additional object of the invention is to provide a bow-sight possessing the advantageous structural features, the inherent meritorious characteristics and having the means and mode of use herein described.

With the above and other incidental objects in view, as will more fully appear in the specification, the invention intended to be protected by Letters Patent consists of the features of construction, the parts and combinations thereof, and the mode of operation as hereinafter described or illustrated in the accompanying drawings, or their equivalents.

Referring to the accompanying drawing wherein is shown one but obviously not necessarily the only form of embodiment of the invention,

FIG. 1 is a perspective view of the invention sight as applied to a bow;

FIG. 2 shows an enlarged fragment of FIG. 1, viewing the sight from one side;

FIG. 3 is a view of the sight from the opposite side; and

FIG. 4 is a top view of the bow-sight.

Like parts are indicated by similar characters of reference throughout the several views.

The bow-sight illustrated comprises an elongate generally rectangular base 10. Formed integral with and generally perpendicular to one edge of the base 10 is a plate segment 12. The outer edge portion 13 of the latter is arcuate, being formed on a generally uniform radius the center of which is defined by an aperture 14. Extended through this aperture and perpendicular to the plate segment 12 is a screw type pivot device 15. Pivoted on the device 15 is a sighting assembly 16. The assembly 16 includes a compound arm structure made up of two narrow plate segments 17. The innermost ends 18 of the segment 17 are enlarged to a disc configuration, positioned to opposite faces of the plate segment 12 concentric with its arcuate edge, and receive therethrough the pivot device 15. The device 15 threadedly mounts a wing nut 19 by means of which the

segments 17 may be clamped to achieve a particular desired frictional engagement with the plate segment 12.

Parts 17 of the arm unit 16 project radially outward of the plate segment 12. They extend coextensively and have at their outermost ends aligned apertures through which is threaded a sighting screw 20. At each of the remote faces of the segments 17 the screw 20 mounts a nut 21. The nuts 21 clamp to the adjacent ends of the segments 17 and provide the means for fixing the adjusted position of screw 20, the latter of which orients in a sense transverse to the arm unit 16. The one end of the screw 20 which positions laterally and outwardly of the edge 11 of base 10 is necked and terminates in a slightly enlarged ball sight configuration 22.

As may be seen, since the inner ends of segments 17 are spaced by plate segment 12 and their outer ends are clamped together, there is a converging space therebetween. Intermediate their ends the segments 17 have additional aligned apertures through which is threaded a screw 23. The screw 23 applies a clamping tension to the arm assembly 16.

An assembly of the described sight to a conventional bow is shown in FIG. 1 of the drawings. The base 10, as there shown, is clamped flush to the outermost surface of the bow 24 immediately above the feather 25 which serves as a guide for the arrow 26. Referring to FIG. 2, as may be there seen, the disc portion 18 of the arm segment 17 outermost of plate segment 12 and edge 11 mounts a radially projected pointer device 27. The device 27 is directed to underlying calibrations 28. The latter are inscribed on a surface element 29 on the outer face of plate segment 12.

As may be readily observed, since the ball sight 22 projects clear and to one side of the bow in the general plane of the arrow, by sighting the target through this ball sight there is thus defined in a simple fashion the path the arrow will follow on release. The arm assembly 16 may be adjusted to correct for the proper attitude of the arrow on release to achieve the required trajectory and distance to hit the target. The calibrations provide for an accurate adjustment in this respect. The simple manner in which the arm assembly is tensioned and frictionally held in any position to which it may be freely moved insures precisely determinable and correctable results.

The invention embodiment is thus simple to fabricate, easy to use for any novice and enables optimal accuracy by that novice at a minimal cost. The novice will readily learn that by pivoting the sight up or down in its vertical plane of operation it will produce the desired shortening or lengthening of the distance an arrow will travel on release. The accuracy enabled in this simple fashion is significant.

From the above description it will be apparent that there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention has been described in language more or less specific as to structural features, it is to be understood

that the invention is not limited to the specific features shown, but that the means and construction herein disclosed comprise but one of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

I claim:

1. A bow-sight comprising an elongate base plate formed throughout its longitudinal extent to seat flush to the outermost surface of a bow, a plate-like segment integral with one edge of said base plate and bent to project generally perpendicular to said base plate and outwardly from the bow as said base plate seats thereto, an arm unit pivotally connected to said plate-like segment having portions at one end thereof disposed on opposite sides of said plate-like segment to bear thereon in a pivoting movement of said arm unit, a portion of said arm unit adjacent its opposite end having means defining a sighting element in connection therewith and mounted for adjustment in a transverse sense referenced to the orientation of said arm unit, means in connection with said arm unit at a location between the connections of said arm unit to said sighting element and said plate segment to clamp to said plate segment the said portions of said arm unit disposed on opposite sides of said plate segment, said one end of said arm unit having means thereon defining a reference pointer and said plate segment having means related to said pointer to cooperate therewith to assist in establishing the distance an arrow or other projectile will travel in use of the sight in conjunction with the bow to which it mounts.

2. A sighting device as in claim 1 characterized by said arm unit comprising a pair of elongate plate segments, the ends of said plate segments forming the end of said arm unit remote from its pivot connection to said plate-like segment being clamped together and have threaded therethrough a screw means, one end of said screw means having a ball form providing a sighting point and being necked immediately preceding the ball form, and the inner ends of said elongate plate segments remote from their clamped ends being relatively spaced to be positioned on either side of said platelike segment integral with said base plate and there being means for establishing a frictional lock of the said inner ends of said plate segments in such spaced relation for maintaining said arm unit in any selected position of adjustment referenced to said base plate to establish the required relation between said pointer and the means related to said pointer on said platelike segment.

3. A sighting device as in claim 1 wherein said sighting element has opposite ends which project to respectively opposite sides of said arm unit and one of said ends providing the sighting end of said sighting element having a ball form and said sighting element in the portion thereof immediately preceding said ball form having a necked configuration.

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