July 11, 1961 A. J. WILCHEK 2,991,556

BOW AND ARROW SIGHT

Filed April 29, 1959

Fig. 1

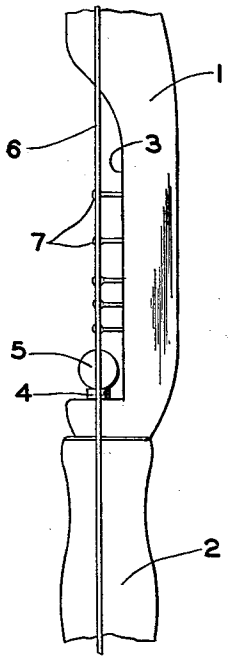


Fig. 2

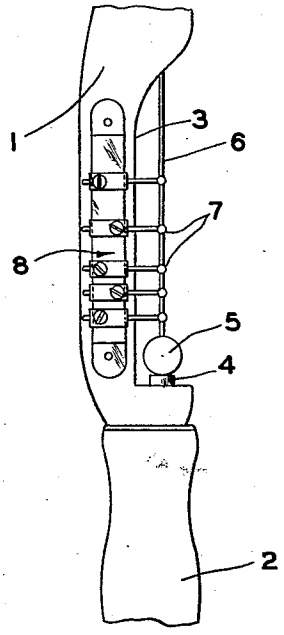


Fig. 3

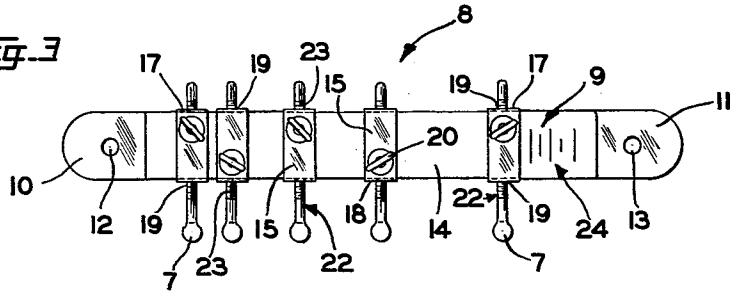


Fig. 4

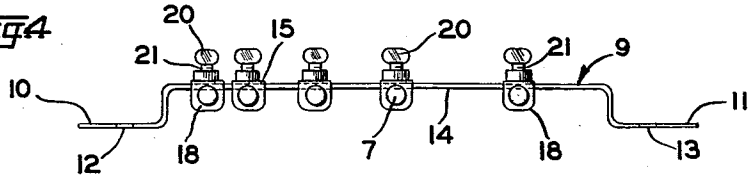
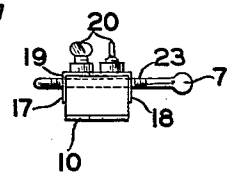


Fig. 5



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BOW AND ARROW SIGHT

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This invention relates generally, as indicated, to a bow and arrow sight and more particularly to a device that can be used with a bow and arrow to assist in the aiming of the arrow at a distant target.

Sighting devices have been provided for bows in which the hunter could pre-select a particular sight and in fastening it to the bow could then use it as an aid in directing the arrow toward the target. However, most sighting devices have to be preset since the hunter cannot take the time to make sight adjustments after the target is sighted. If adjustments are to be made to the sighting device, they must obviously be done quickly and readily without the use of adjusting tools. Game presents an elusive target and any unnecessary delays in putting the arrow on target can result in the loss of the shot. Moreover, the sight must be readily adaptable to the bow since the person using the bow will not always hold it or aim it in the same manner that another hunter will use it.

It is accordingly a primary object of my invention to provide a bow and arrow sight that may be readily adapted or mounted on a bow and when so mounted may be readily adjusted to the required positions for the particular user.

It is a further object of my invention to provide a bow and arrow sight that may be rapidly adjusted for both range and windage without the use of special tools or the like.

Other objects and advantages of the present invention will become apparent as the following description proceeds.

To the accomplishment of the foregoing and related ends, said invention, then, comprises the features hereinafter fully described and particularly pointed out in the claim, the following description and the annexed drawing setting forth in detail a certain illustrative embodiment of the invention, this being indicative, however, of but one of the various ways in which the principle of the invention may be employed.

In said annexed drawing:

FIG. 1 is a fragmentary illustration of a typical hunting bow employing my bow and arrow sight as seen from the eye of the archer;

FIG. 2 is a front view of the hunting bow illustrating my sight employed thereon;

FIG. 3 is a top plan view of my bow and arrow sight;

FIG. 4 is a side elevation of my bow and arrow sight; and

FIG. 5 is an end elevation of my bow and arrow sight as seen from the left in FIG. 4.

Referring now to the drawing and more particularly to FIGS. 1 and 2, there is illustrated a conventional hunting bow **1** having a handle **2**. Positioned directly above the handle is a window **3** having therein an arrow support **4** of conventional material acting as a guide for the arrow shaft **5**. In this manner the arrow will not rest upon the hand of the archer. Secured between the ends of the bow in a conventional manner is the bow string **6** with which the nock end of the arrow shaft **5** is adapted to be engaged in known manner. My bow and arrow sight is secured to the front of the bow in such a manner that the individual sights **7** thereon will align with the bow string **6** when seen by the eye of the archer in a normal shooting position. Referring to FIG. 2, it will be seen that the bow and arrow sight generally shown at **8** is

fastened to the front of the bow opposite the window **3** to be easily observed by the archer therethrough.

Referring now to FIGS. 3 and 4, it will be seen that my bow and arrow sight generally comprises an elongated metal base **9** having longitudinally extending offset portions **10** and **11**. These offset portions **10** and **11** may have apertures **12** and **13** respectively, therein so that the bow and arrow sight may be attached to the bow in the desired position by suitable fastening means such as screws. Such apertures may, of course, be slightly elongated to permit positioning or adjusting of the base **9** without removing such screws. However, many hunters prefer not to have the flexibility of their bow in any way impaired. The outwardly extending members **10** and **11** may then be used to secure the sight to the bow by means of tape or the like wrapped around the bow enclosing these outwardly extending portions **10** and **11**. The base member **9** also includes a central portion **14** on which are mounted channel or generally U-shape runners or slides **15** having downwardly extending end flanges **17** and **18**. Each of the downwardly extending end flanges **17** and **18** has a centrally disposed opening **19** therein which is axially aligned with the opening in the opposite downwardly extending end flange. Threaded in the top of each slide **15** is a suitable small thumb screw **20** which is secured through a centrally offset threaded opening **21**. Extending through the axially aligned openings **19** are transversely extending sight members **22**. The sight members **22** may have spherical rounded end portions **7** thereon to act as the sighting beads and the shanks **23** thereof are threaded so that they may be adjusted transversely of the slides **15** through the axially aligned threaded openings **19**.

In this manner, it will be seen that the windage of the individual sight may be adjusted and, moreover, the sight may readily be aligned with the bow string as indicated in FIGS. 1 and 2. It can now be seen that the thumb screws **20** are utilized to clamp the slides **15** against longitudinal movement on the runner or raised portion **14**. Moreover, this clamping action will draw the slide **15** upwardly so that the threaded shanks **23** of the transverse sighting members **22** will bear against the lower side of the raised portion **14**, in this manner firmly clamping the sight **22** against movement both transversely and longitudinally of the base. In other words, the thumb screw **20** will lock both the slide **15** and the transverse sight member **22** in a fixed position.

The top openings **21** in the slides **15** are centrally offset so that when the slides are relatively close to each other, as they will be in the closer ranges as illustrated in FIG. 5, there will be sufficient room between them so that the hunter may readily adjust the same. If the thumb screws were centrally aligned, it would be difficult to adjust one without moving or touching the other.

It will, of course, be understood that the transverse sighting members **22** need not have threaded shanks for fixed adjustment, but may have smooth shanks so that the adjustment would be by hand through the thumb screw **20**. However, in this arrangement the transverse sighting members **22** generally tend to fall out of the slides **15** when the thumb screw is in a loosened conditiond. Moreover, the threaded shank portion of the sights assist in the clamping of the slides.

Referring again to FIG. 2, there is shown the front of a hunting bow employing my bow and arrow sight with the more distant range sights near the bottom. Since these range increments require a smaller shifting of the elevation of the bow, they are spaced more closely together than the upper sight employed for nearer targets. The top sight may be employed for targets up to 10 yards from the hunter and is most closely horizontally aligned

with the eye of the hunter. In other words, the line from the eye of the hunter to the top sight is approximately parallel to the shaft of the arrow. When the hunter sights through the bottom sights, the bow must accordingly be raised. If desired, the portion **1** of the elongated guide for the slides **15** may be calibrated as shown at **24** as for example from 10 to 60 yards depending upon the requirement of the hunter. It will, of course, be understood that each hunter holds his bow in a certain manner and exerts so many pounds of pull on the bow so that the sight would have to be individually tailored by the hunter himself to meet his own requirements.

It can now be seen that I have provided a compact bow and arrow sight that can be quickly and readily adjusted by the hunter to meet the particular requirements for either hunting or target shooting. Moreover, it will be seen that the parts of my bow and arrow sight are few and inexpensive to manufacture. All of the slides **15** are identical in form, merely being secured to the slide alternately in inverted positions. Thus only the thumb screws **20**, the base **9**, the slides **15** and the sighting members **7** need be manufactured to assemble my bow and arrow sight.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in any of the following claim or the equivalent of such be employed.

I, therefore, particularly point out and distinctly claim as my invention:

A bow and arrow sight comprising an elongated guide adapted to be mounted on the front of a bow, said guide having two offset flanges on the ends thereof to space said guide outwardly of said bow, a plurality of slides mounted on said guide, each slide comprising a U-shape member the legs of which enclose said guide, said legs having aligned threaded openings therein and a transverse sighting member threaded therethrough, and thumb screw clamping means adapted to move said slide outwardly of said guide firmly to clamp said threaded sighting member against said guide whereby said slide and sighting member are firmly clamped against longitudinal and transverse movement respectively of said guide, said thumb screw clamping means of alternate slide and sighting members being offset to place adjacent thumb screw clamping means on opposite edges of said guide whereby said thumb screw clamping means may be adjusted without touching adjacent thumb screw clamping means.

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