Jan. 14, 1964 J. R. DE JONGE 3,117,474

ARROW RETRIEVER

Filed April 7, 1961

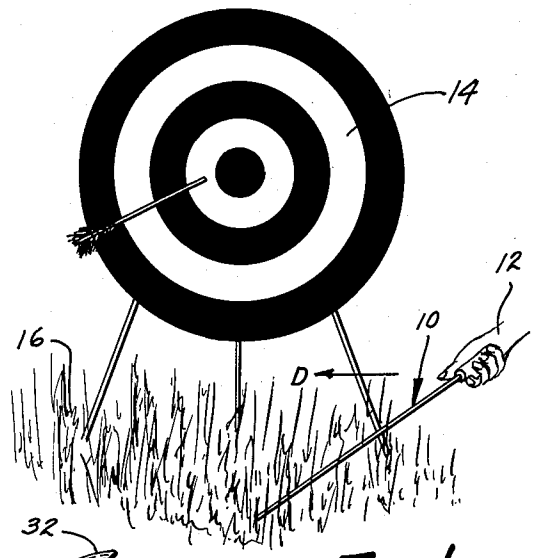


FIG. 1

FIG. 2

FIG. 3

FIG. 4

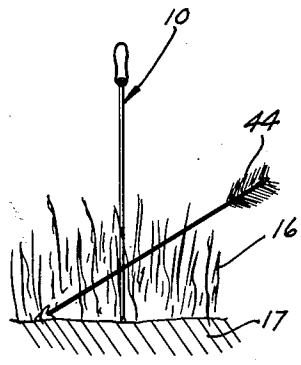


FIG. 5

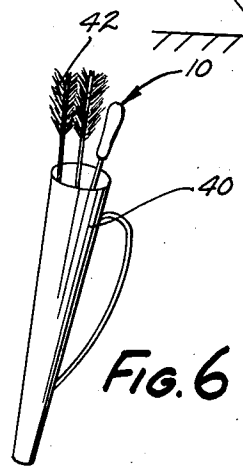


FIG. 6

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3,117,474
Patented Jan. 14, 1964

3,117,474

ARROW RETRIEVER

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Filed Apr. 7, 1961, Ser. No. 101,463
2 Claims. (Cl. 81—1)

This invention relates to archery equipment and more particularly to a device for locating and retrieving arrows hidden under the grass.

The ancient sport of archery is experiencing a substantial revival at the present time. Equipment for this sport is reasonably inexpensive except for one factor, namely that of constant replacement of lost arrows. Arrows are most often lost when the archer misses his target, which usually results in his arrow traveling along the surface of the ground under the grass and weeds. As is only too well known to archers, such mis-shot arrows are practically impossible to see under normally tangled grass, weeds and briars. Consequently, these arrows are often abandoned after several minutes searching due to the frustration of not being able to detect them with any degree of facility. It is not uncommon to walk back and forth several times directly over the arrow before finding it, if found at all. Some archers have a habit of dragging one end of their bow through the grass in hopes of bumping the arrow. Such tactics can ruin an expensive bow, however, and further are not very reliable.

The sport of archery has for a long time been in need of an inexpensive and reliable device for positively locating and retrieving these lost arrows so that one can be certain the arrow has not been passed over and missed.

The device not only must be reliable but it must be simple and light weight in nature to allow its use with no special efforts and to allow it to be ordinarily conveniently carried in a quiver right along with the arrows. The device must meet these requirements to be adopted by those participating in the sport.

It is therefore an object of this invention to provide an arrow locater and retriever which possesses the above desirable attributes. The retriever is capable of easy and inexpensive manufacture, is light weight, simple to use, easy to carry in a quiver along with the arrows, capable of gliding smoothly along the surface of the ground under the grass and briars to locate a hidden arrow, is not harmful to arrow shafts, and saves many dollars for the average archer.

Another object is to provide an arrow finder and retriever that can sever its way through thick grass and tangled briars to assure good coverage of the ground area to scoop up unseen arrows.

These and other objects of this invention will be apparent upon reading the following specification in conjunction with the drawings in which:

FIG. 1 is a perspective view showing the arrow finder being used near a conventional target;

FIG. 2 is a side elevation view of the novel arrow finder and retriever;

FIG. 3 is a cross-sectional view taken on plane III—III in FIG. 2;

FIG. 4 is a cross-sectional view taken on plane IV—IV in FIG. 2;

FIG. 5 is an elevation view showing the novel retriever in operation having located a lost arrow; and

FIG. 6 is a side elevation view of a conventional quiver showing the novel retriever therein along with conventional arrows.

Basically, the invention comprises an arrow finder and retriever including an elongated shaft member, handle means on one end of the shaft to allow an archer to hold the shaft and extend it toward the ground, a portion on the other end of said shaft being at an obtuse angle,

preferably between about 120° and 150°, with respect to said rod member so that said portion will glide along the surface of the ground under the grass as the archer walks, and the terminal face of said portion being generally convex in nature to prevent digging into the ground of the shaft and to cause an arrow lying on the ground to ride up said portion and part way up said shaft within reach of the archer for retrieving. Preferably, at least part of said portion is somewhat flattened to provide a good bearing surface to assure smooth passage over the ground.

Referring now to FIG. 1, the arrow retriever 10 is shown held in the hand 12 of an archer (not shown) as he walks in front of and transverse to a conventional target 14. The lower end of the arrow retriever is under the grass 16 and riding along the surface of the ground 17 in a direction indicated by the arrower D which is transverse to the direction in which the arrows were shot. In FIG. 2, the arrow retriever is shown somewhat enlarged. It is shown riding on the ground 17 and moving in the direction D as indicated by the graphic arrow. It comprises an elongated shaft or rod 18 having a handle 20 on one end portion thereof to enable the archer to hold the device and extend it toward the ground. On the other end of shaft 18 is a terminal portion 22 which is at an obtuse angle with respect to the main portion of the shaft. This angle may vary depending on the height of the archer and the length of the shaft as desired, but is preferably an angle between 120° and 150° with respect to the rest of the shaft to allow the terminal portion 22 to glide smoothly along the surface of the ground as the archer walks.

The end of face 24 of portion 22 is generally convex in shape to serve the dual purpose of preventing its digging into the ground and to cause an arrow shaft to ride up on the upper surface of portion 22 and up the shaft 18 as the device is moved along the ground. This general convex configuration may vary in detail. For example, a hemispherical shape may be used or a somewhat pointed configuration.

To assume smooth passage of portion 22 over the ground, at least a substantial part of lower surface 26 is preferably of larger diameter. This may be achieved by a somewhat flattened lower surface to provide a good bearing surface. This flattened portion may comprise the entire lower surface of portion 22 if desired. The remainder of shaft 18 is preferably cylindrical due to the ease of manufacture of such a shape.

In one embodiment of the novel arrow retriever, a blade member 30 is secured as by welding to the shaft 18 a substantial distance above the end portion 22. Thus, when the retriever is pushed through heavily tangled grass in the direction D indicated by the arrow, the blade severs the grass above portion 22 to prevent the retriever from becoming jammed. For protection of the quiver and the user when such blade is not in use, a suitable cover 32 may be pivotally mounted at 34 to the upper end of the fixed blade to cover the blade as indicated in phantom in FIG. 2.

In use, the arrow retriever is amenable to being ordinarily carried right in the quiver 40 (FIG. 6) along with arrows 42 to allow convenient, effortless transport. The retriever is preferably at least slightly longer than a conventional quiver. When an arrow becomes lost, the retriever is removed from the quiver and extended toward the ground under the grass. It is then run along the surface of the ground in a direction transverse to the direction in which the arrow was shot as indicated in FIG. 1. When the retriever contacts the arrow 44 under the grass (FIG. 5), the arrow rides up face 24 onto the upper surface of portion 22 and part way up shaft 18

to become clearly visible and easily retrieved by the archer as indicated.

It will be readily seen that the novel device fills a very real gap in the sport of archery and is capable of saving many dollars for those in the sport. This will enable others to participate who up until now couldn't afford to keep loosing expensive arrows. To be sure, the device is simple. Indeed, its very simplicity and inexpensiveness is one of its major attributes in view of its very useful, important, and money-saving function. It will be obvious to those in the art that the basic structure disclosed may be modified in various ways including changes in the shape of the shaft, in the particular configuration of end portion **22**, in the configuration of end face **24**, in the presence or absence of a blade **30**, and other factors. Thus the invention is not to be limited by the illustrative material above but only by the scope of the appended claims and the equivalent structures thereto.

I claim:

1. An arrow finder and retriever for locating grass-covered arrows and retrieving them to within reach of a walking archer, comprising: an elongated shaft having first and second portions having their central axes lying in a common plane; a handle on the end of said first portion to allow an archer to hold said shaft; said shaft being of sufficient length to allow an archer when walking to extend it to the ground; said second portion on the other end of said shaft being generally at an obtuse angle to said first portion and having a substantial length

to glide along on the ground; and at least part of said second portion intermediate its end and the juncture of said first and second portions being a generally flattened portion of oval cross section to provide a good bearing surface for gliding smoothly along the surface of the ground under the grass as the archer walks; the end of said second portion being rounded to prevent digging thereof into the ground, the top surfaces of said second portion and the juncture of said first and second portions being smooth and unobstructed permitting a grass-covered arrow to ride along said second portion, over said juncture, and part way up said second portion for retrieving.

2. In the device of claim 1 in which there is provided a cutting blade secured to said first portion a distance above the second portion, the cutting edge of said blade extending in a direction toward the second portion.

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