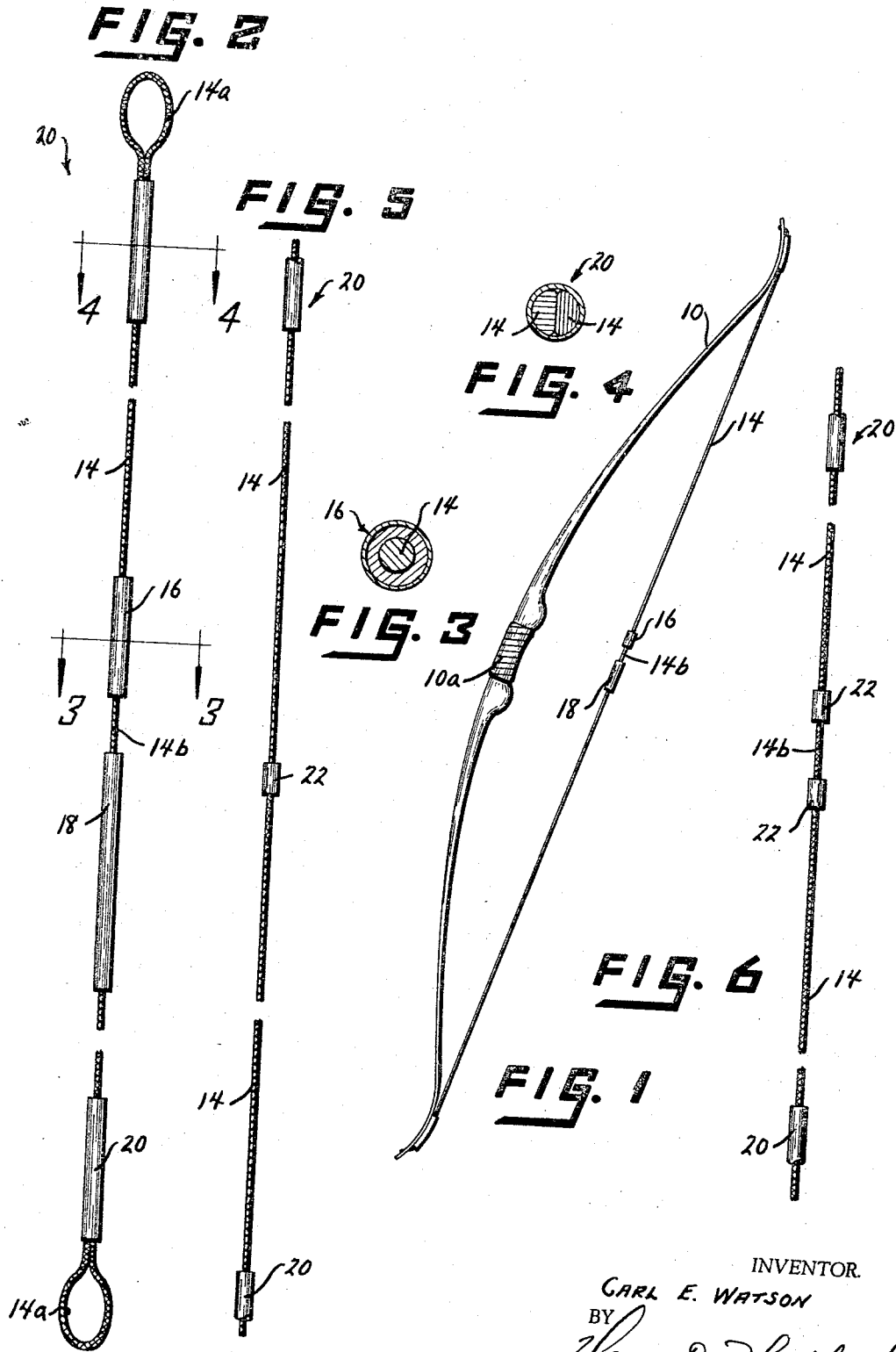


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ARCHERY DEVICE

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The present invention relates to archery, and more particularly to a new and novel improvement for simply and effectively defining the nocking point on the string of an archer's bow.

As is known, the space on a bow string for fitting the rear notched end of the arrow, i.e., the nocking point, has been variously defined through the use of rubber wedges, molded plastic "points," or the like, where these prior devices prove objectionable to the user in the positioning of same, in that tools or like specialized equipment is required, and where such positioning is time consuming. Additionally, most of these prior arrangements prohibited positioning for use while actually in the field, as well as proved ineffective during archery because of inherent limitations in their particular physical characteristics.

By virtue of the instant invention, the applicant herein has provided for the new and novel ready placement of one or more nocking members on a bow string to define the nocking point for an arrow, where such nocking members comprise heat-shrinkable tubing which is readily moved along the bow string to the desired place of use and, thereafter, firmly and securely positioned in such location. The instant invention envisions the use of various size nocking members, one application being where several of the archer's fingers are in direct engagement therewith, and another application being, for example, the use of one or more smaller nocking members, as in the instance where the archer uses a glove to draw the bow string.

Accordingly, the principal object of the present invention is to provide new and novel nocking members for the string of an archer's bow.

Another object of the present invention is to provide nocking members for a bow string which may be readily positioned thereon, as desired, through sliding movement, and, thereafter, firmly and positively secured at such position.

A still further and more general object of the present invention is to provide for the simple and ready defining of a nocking point on a bow string through the use of one or more new and novel heat-shrinkable nocking members.

Other objects and a better understanding of the present invention will become more apparent from the following description, taken in conjunction with the accompanying drawing, wherein

FIG. 1 is a plan view of a bow in accordance with the instant invention;

FIG. 2 is an enlarged fragmentary view of the bow string typically defining part of the bow of FIG. 1;

FIG. 3 is a view in section through one of the nocking members on the bow string of FIG. 2, taken at line 3—3 of such figure and looking in the direction of the arrows;

FIG. 4 is a view in section of one of the sleeve-like members defining each of the looped ends of the bow string of FIG. 2, taken at line 4—4 of such figure and looking in the direction of the arrows;

FIG. 5 is a fragmentary view of a bow string employing a single relatively short nocking member; and,

FIG. 6 is another fragmentary view of a bow string, modified, however, to show the use of two relatively short nocking members.

For the purposes of promoting an understanding of

the principles of the invention, reference will now be made to the embodiments illustrated in the drawing and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended, such alterations and further modifications in the illustrated devices, and such further applications of the principles of the invention as illustrated therein being contemplated as would normally occur to one skilled in the art to which the invention relates.

Referring now to the figures, the applicant's new and novel invention is used in combination with a bow 10 having a hand receiving area 10a and, typically, notches (not shown in detail) at either end thereof for receiving the looped ends 14a of a bow string 14. Both the bow 10 and its cooperating bow string 14 are made from conventional material known in the art.

In order to define a desired nocking point 14b on the bow string 14, i.e., the point which receives the notched end of the arrow (not shown), the applicant herein has provided new and novel nocking members 16 and 18, which, when positioned for use, are readily movable along the bow string 14 to the desired location thereon. The instant nocking members 16 and 18 each comprise a tubular or sleeve-like member made from heat-shrinkable tubing having dual walls, where, under the application of heat, the inside wall melts as the outside wall shrinks.

More specifically, the applicant's new and novel nocking members are irradiated, modified polyolefin, dual wall tubing, where the outer wall thereof is shrinkable upon heating, but which does not melt at any temperature, while the inner wall melts during heating and embeds whatever it surrounds by the shrinking of the outer wall. In any event, the entire assembly, upon cooling, defines a hard, tough homogeneous molding.

In other words, and with use, the archer conveniently threads the bow string 14 through the sleeves 16 and 18, which, at this time, are loosely fitting thereon, until their spaced-apart position defines the desired nocking point 14b. Then, with the application of heat to the sleeves 16 and 18, as by lighting a match, for example, the outer wall shrinks and the inner wall becomes embedded with the bow string 14. The finalized assembly is immovable and represents a valuable advantage in simplicity of positioning, as well as durability in use.

As indicated hereabove, the loops 14a on the bow string 14 are defined by new and novel sleeve-like members 20 also comprising heat-shrinkable tubing. In this instance, however, and more particularly, polyvinylchloride heat-shrinkable tubing is employed which does not flow or melt at elevated temperatures but, rather, retains form stability. In that such tubing is flexible, strong, and typically shrinks 50% upon the application of heat, a positive definition of the looped ends 14a of the bow string 14 is provided by the applicant herein.

In use, the bow string 14 is threaded through the loosely fitting sleeves or sleeve-like members 20 and, typically, looped back upon itself to define each of the desired loops 14a. Whereupon, through the application of heat, as by use of a match, for example, the sleeves 20 shrink, and firmly secure each end portion of the bow string 14 in a positive final assembly.

FIGS. 3 and 4 are representative of the physical relationship between the nocking members 16 and 18 and sleeve members 20 and the bow string 14, where FIG. 3 shows the nocking member 16 in a shrunk and embedded position on such bow string 14, while FIG. 4 discloses the sleeve member 20 in shrunk relation in regard to the portions of the bow string 14 therewithin.

With reference now to FIGS. 5 and 6, the former discloses a relatively short nocking member 22, where the

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nocking point 14b is the area thereabove, while FIG. 6 discloses two relatively short nocking members 22, where the nocking point 14b is therebetween. In the instance of FIGS. 5 and 6, the archer employs a glove during archery, in contrast to the structures of FIGS. 1 to 4, inclusive, where the arrow may be directly released.

In any event, it should be understood that the application of heat to the nocking members 22 of FIGS. 5 and 6 causes a similar reaction to that described hereabove in connection with FIGS. 1 to 4, inclusive. Similarly, the collar members 24 of FIGS. 5 and 6 are the same as those in FIGS. 1 to 4, inclusive.

Accordingly, from the preceding, it should be apparent that the applicant herein has provided a new and novel nocking member for a bow string, as well as a new and novel member for defining the looped end portions of such bow string. In the former instance, the nocking member is a dual wall tubing which both shrinks, and melts, upon heating, while, in the latter instance, the sleeve member shrinks upon heating, to positively co-act and secure portions of the bow string. The instant invention is readily used, even in the field, without the necessity of tools or like equipment.

The new and novel improvements for archer's bows described hereabove are, of course, susceptible to various changes within the spirit of the invention. For example, the respective members may assume different proportions in length from that shown, with the same effect

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tive end results. Thus, the preceding description should be considered illustrative, and not as limiting the scope of the following claim:

I claim:

The method of defining a nocking point on a bow string which comprises the steps of (1) sliding a dual wall tubular member comprised of an inner wall meltable at a predetermined temperature and an outer wall heat shrinkable at said temperature along said bow string to the desired nocking point, and (2) applying heat to said tubular member to bring said tubular member to said predetermined temperature and to fixedly secure same on said bow string in an embedded relationship.

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