Dec. 28, 1965 M. N. SHANKLAND 3,225,755

HORIZONTAL ARROW REST

Filed April 1, 1963

Fig. 1.

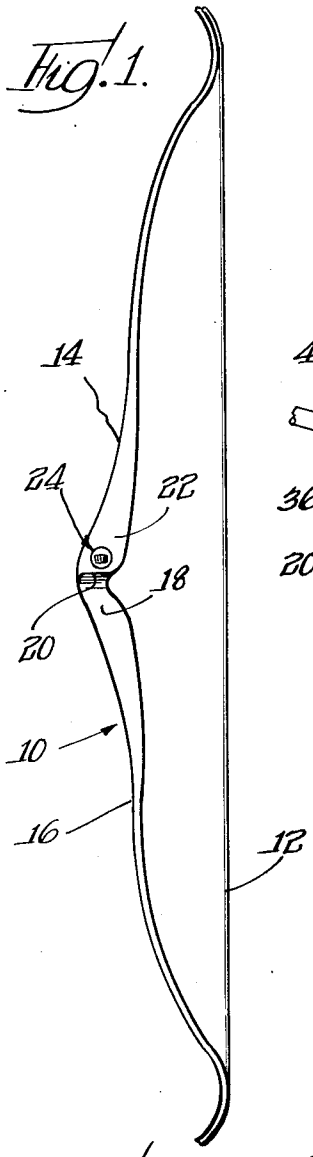


Fig. 2

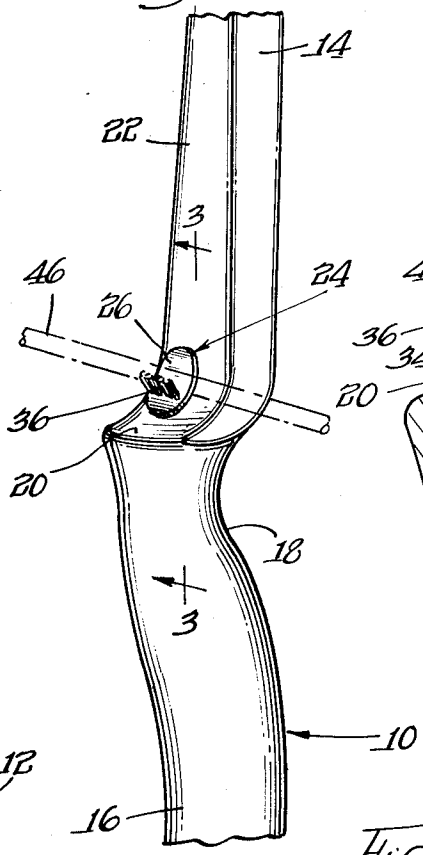


Fig. 3.

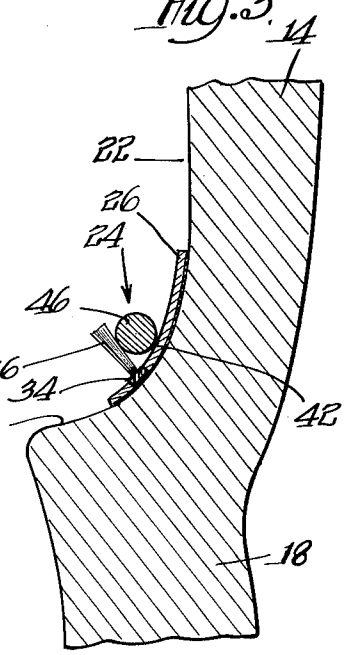


Fig. 4.

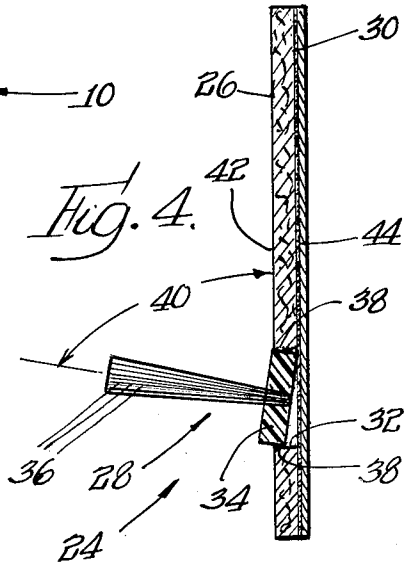
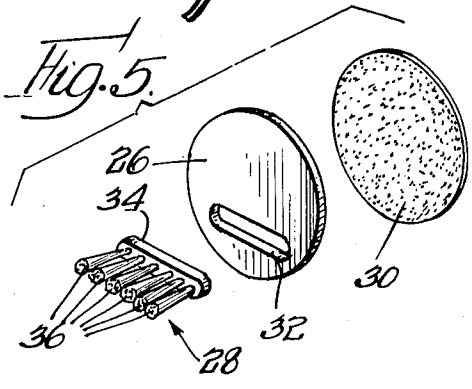


Fig. 5.



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HORIZONTAL ARROW REST

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This invention relates generally to archery and more particularly to a bow-attached appliance for use in supporting an arrow immediately prior to and during its propulsion from the bow.

According to traditional practice, an arrow is fitted to a bow contacting a lateral edge thereof in position to be supported vertically by the archer's bow hand. With the application of modern laminating techniques to the manufacture of bows, it became possible to form a horizontal shelf on the bow above the hand grip for use in supporting the arrow. However, it has been discovered that an arrow supported solely on the rigid material of the bow has a tendency to bounce during propulsion from the bow. Inaccuracy in arrow flight results. Moreover, the fletching of the arrow is damaged upon repeated passage over the rigid edge of the bow shelf.

Therefore, an important object of the present invention is to provide a horizontally disposed rest which resiliently supports an arrow during draw of the bow and during powered take-off of the arrow.

A more general object of the invention is to provide an arrow rest that promotes true arrow flight.

Another object of the invention is to provide an arrow rest that can be easily, quickly and accurately attached to a bow.

Yet another object of the invention is to provide an arrow rest which is characterized by a long use-life.

Still another object of the invention is to provide an arrow rest that avoids damage to the fletching.

These and other objects and features of the invention will become more apparent from a reading of the following disclosure.

A rest in accord with the invention includes a planar base member, pressure sensitive adhesive means on the base member for use in attaching the rest to a bow, and a plurality of flexible bristles supported by the base member to extend outwardly therefrom, the bristles having medial portions adapted to receive and resiliently support the shaft of an arrow.

In order that the principles of the invention may be readily understood, a single embodiment thereof, but to which the application is not to be restricted, is shown in the accompanying drawing wherein:

FIG. 1 is a side elevational view of a recurved bow both strung and provided with an arrow rest constructed in compliance with the invention;

FIG. 2 is an enlarged perspective view of the mid-portion of the bow of FIG. 1, showing the arrow rest of the invention supporting the shaft of an arrow;

FIG. 3 is a further enlarged view taken substantially through the section 3—3 of FIG. 2;

FIG. 4 is a yet further enlarged view taken in cross-section and showing the construction of the arrow rest of the invention; and

FIG. 5 is an exploded perspective view of the arrow rest of the invention.

Referring now in detail to the drawing, specifically to FIG. 1, a recurved bow is indicated generally by the numeral **10**. The bow **10** is strung with a string **12** and is constructed to comprise an upper limb **14**, a lower limb **16**, a handle grip **18** intermediate the limbs **14** and **16**, an arrow shelf **20** and a window **22** overlying the shelf **20**. In accordance with the invention, an arrow rest **24** is attached to a substantially vertical surface of the bow

10 above the handle grip **18**. More specifically, the arrow rest **24** is attached to the sidewall of window **22** immediately overlying the arrow shelf **20**.

With reference to FIGS. 4 and 5, the arrow rest **24** will be seen to comprise a planar base member **26**, a narrow rectangular brush assembly **28**, and a quantity of pressure sensitive adhesive **30**. The base member **26** is intended to be fabricated from a strong, flexible, resilient material; and leather has proved particularly advantageous in this regard. The thickness and composition of the base member **26** is selected to establish sufficient flexibility in the base member for it to be shaped to the curvature of the surface to which the arrow rest is to be attached. Moreover, the base member **26** is intended to act as a mounting for the brush assembly **28** and is, therefore, adapted to be sufficiently stiff and strong to hold the brush assembly firmly.

As is best seen in FIG. 5, the base member **26** is formed with an elongated slot **32**, and this slot is shaped for receipt of a backing block **34**, block **34** comprising one element of the brush assembly **28**. In compliance with the invention, the brush assembly **28** also includes a number of bristles **36** which are secured in the backing block **34**, the bristles **36** being grouped to form a row several bristles thick. The backing block **34** can be fashioned from wood or a suitable plastic material. Since the backing block serves the purpose of support for the bristles **36**, the backing block may be eliminated and the bristles sewn together with wire or thread, or the backing block may be made integral with the base member **26**.

The bristles **36** are advantageously fabricated from nylon, although other flexible, relatively stiff and wear-resistant materials may also be employed. Because the bristles are to support the shaft of an arrow by their medial portions, the length of the bristles is selected to be somewhat greater than the diameter of an arrow shaft. Correspondingly, the brush assembly **28** is secured to the base member **26** with the bristles **36** extending outwardly from the central plane of the base member as is best illustrated in FIG. 4. A suitable adhesive material **38** is conveniently utilized in attaching the backing block **34** to the edges of the slot **32**; and in compliance with an important feature of the invention, the brush assembly **28** is fastened to the base member **26** so that the bristles **36** extend outwardly from the base member at an acute angle **40** with respect to the plane of the base member. Ordinarily, the plane of the base member **26** is defined by a forward, arrow-contacting surface **42**; and the bristles are angulated with respect to this surface at from about seventy-five to about eighty degrees. An angle of seventy-nine degrees has proved particularly advantageous.

As described hereinabove, the arrow rest **24** is attached to the bow **10** by means of a quantity of pressure sensitive adhesive **30**; and as is shown in FIG. 4, this pressure sensitive **30** is disposed on the back of the base member **26**. To protect the adhesive **30** and to prevent accidental attachment of the arrow rest prior to its assembly to the bow **10**, a layer of paper **44** is applied over the adhesive **30**, the layer of paper **44** being coated or otherwise suitably treated for easy release from the adhesive. As will be recognized, the layer of paper **44** is stripped from the arrow rest **24** immediately prior to attachment of the rest to the bow. While various types of pressure sensitive adhesive may be used in the invention, the pressure sensitive adhesive known as "Mystik Tape #6360" has proved particularly advantageous. This product is available commercially from the Minnesota Mining & Manufacturing Company of St. Paul, Minnesota.

In use, the arrow rest **24** is attached to a substantially

vertical surface of a bow, as for example to the sidewall of the window **22** of bow **10** as is shown in FIGS. 2 and 3. The arrow rest **24** is positioned on the bow **10** so that the bristles **36** extend outwardly and so that the arrow-contacting surface **42** of the base member **26** overlies the bristles. So disposed, the arrow rest **24** is capable of resiliently supporting the shaft of an arrow **46** immediately prior to and during propulsion of the arrow from the bow **10**. As will be noted in FIGS. 2 and 3, the shaft of the arrow **46** rests on and is resiliently supported by medial portions of the bristles **36**, the topmost bristles receiving support from the underlying bristles. The resilient support which is given the arrow by the bristles **36** promotes a true flight of the arrow, there being no perceptible bounce of the arrow during its propulsion from the bow. Furthermore, the flexibility of the bristles **36** avoids damage to the fletching of the arrow because the bristles yield to permit passage of the fletching thereover.

The slight angulation of the bristles which has been described serves to position the arrow properly with respect to the bow, tending to lead the shaft of the arrow into contact not only with the bristles but with the adjacent portion of the arrow-contacting surface **42** as is shown in FIG. 3. Thus, the arrow rest **24** promotes location of the arrow in the same position each time that it is fitted to the bow. The resiliency of the material from which the base member **26** is fabricated allows the shaft of the arrow to rest on these two positions without encouraging undesirable bounce of the arrow upon the archer releasing the string for propulsion of the arrow. It is also important to point out that the material selected for the bristles **36** combines with the lateral contact of the bristles with the arrow to insure a long use-life in the arrow rest.

While a particular embodiment has been shown, it should be understood, of course, that the invention is not limited thereto since many modifications, beyond those described, may be made; and it is, therefore, contemplated to cover by the present application any such modifications as fall within the true spirit and scope of the appended claims.

The invention is claimed as follows:

1. An arrow rest comprising: a flexible base member for use in mounting a group of bristle elements to a substantially vertical surface of a bow, said base member conforming to any slight contour of said surface and having an elongated slot and an arrow-contacting surface thereabove; brush means secured to said base member, including a plurality of flexible bristle elements connected at corresponding ends to said base member, said bristle elements having a length greater than the diameter of an arrow shaft, said bristle elements being mounted to extend outwardly from said base member and having medial portions adapted to receive and resiliently support the shaft of an arrow, said bristle elements being free at positions away from said base member whereby resiliently to respond independently to the passage of the fletching of a supported arrow and said bristle elements being aligned in a group having greater length than width, the width dimension of said group of bristle elements being disposable transversely of the shaft of a supported arrow whereby to minimize the contact effects on arrow fletchings propelled thereover, said brush means further including relatively rigid interconnecting means joining said corresponding ends of the bristle elements to preserve the general organization and the alignment thereof and said relatively rigid interconnecting means conforming to the shape of said slot for telescopic assembly therein with the base member; and pressure sensitive adhesive means on said base member for positively attaching said base member and said brush means to said bow surface in conformity with any slight contour variation of the subjacent bow surface.

2. An arrow rest according to claim **1** wherein said group of bristle elements is arranged at an acute angle with respect to said arrow-contacting surface from about 75° to about 80° in angular measurement.

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