KENNETH E. LYON, JR.
Attorney at Law
P. O. Box 4866
Pocatello, ID 83205
Tel: (208) 233-1240
Fax: (208) 232-8867
Idaho State Bar No. 1117

Attorney for Plaintiff

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF IDAHO, EASTERN DIVISION

| | |
|---|---|
| ABBAS BEN AFSHARI, (an individual), Plaintiff, vs. QUALITY ARCHERY DESIGNS, INC., Defendant. | Civil Action No.: CIV 04-331-E-BLW |

**COMPLAINT AND DEMAND FOR JURY TRIAL**

Plaintiff, ABBAS BEN AFSHARI, for his complaint against Defendant, states and alleges as follows:

**STATUS OF PARTIES**

1. The Plaintiff, ABBAS BEN AFSHARI (hereafter "BEN"), is an Idaho resident, residing at 7964 North Prospector Hollow, Pocatello, Idaho, 83201.

2. Upon information, the Defendant, QUALITY ARCHERY DESIGNS, INC. (hereafter "QUALITY") is a corporation organized and existing under the laws of the state of Virginia and having a place of business at P.O. Box 940, Madison Heights, VA 24572.

3. Defendant is and has been doing business in this judicial district at all times relevant hereto.

**JURISDICTION AND VENUE**

4. This is an action for a patent infringement, a permanent injunction, together with a declaratory judgment of unenforceability under the Patent Laws of the United States, Title 35 United States Code. This Court has original jurisdiction pursuant to 28 U.S.C. §§1331 and 1338. This Court also has supplemental jurisdiction under 28 U.S.C. §1367.

5. Venue is proper in this District pursuant to 28 U.S.C. §1339(b) and (c) because Ben is doing business and resides in this judicial District, the acts alleged by Defendant as being an infringement took place within this jurisdiction, Defendant's threats created a reasonable apprehension upon Ben, an Idaho resident, and because Defendant is subject to general and personal jurisdiction in this District.

**COUNT I**

**PATENT INFRINGEMENT**

6. On January 27, 2004, United States Patent No. US 6,681,753 B2 entitled, "shaft clamping arrow rest" was duly and legally issued to Plaintiff. Plaintiff is the owner of the entire right, title and interest in and to United States Patent No. US 6,681,753 B2 and has been and still is the owner thereof. United States Patent No. US 6,681,753 B2 is attached as Exhibit A.

7. Defendant has manufactured, used, and/or sold, offered for sale, and is continuing to manufacture, use and/or sell or offer for sale arrow rests which infringe United States Patent No. US 6,681,753 B2.

8. Plaintiff has been damaged by Defendant's infringement of United States Patent No. US 6,681,753 B2 and will continue to be damaged in the future unless Defendant is permanently enjoined from infringing said patent.

9. Upon information and belief, Defendant is aware that said patent has been duly and legally issued, and is aware or should be aware that Defendant's manufacture and sell of arrow rests infringes United States Patent No. US 6,681,753 B2.

10. Upon information and belief, the infringement of United States Patent No. US 6,681,753 B2 is now and has been intentional, willful, and deliberate.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for judgment against the Defendant as follows:

A. A judgment that Defendant has infringed United States Patent No. US 6,681,753 B2;

B. An injunction enjoining and restraining Defendant, its officers, directors, agents, servants, employees, attorneys and all others acting under or through it, directly or indirectly, from infringing United States Patent No. US 6,681,753 B2.

C. A judgment that Defendant's infringement of United States Patent No. US 6,681,753 B2 has been willful and deliberate;

D. A judgment requiring Defendant to pay damages under 35 U.S.C. §284 for the infringement, including trebled damages, with interest;

E. A judgment and order directing Defendant to pay the costs of this action (including all disbursements) and attorney fees as provided by 35 U.S.C. §285, with interest; and

F. Such other and further relief as this Court may deem just and equitable.

DATED this 24 day of June, 2004.

Kenneth E. Lyon, Jr.
Attorney for Plaintiff

US006681753B2

# (12) United States Patent
Afshari

(10) Patent No.: US 6,681,753 B2
(45) Date of Patent: Jan. 27, 2004

(54) **SHAFT CLAMPING ARROW REST**

(76) Inventor: **Abbas Ben Afshari**, 4 Landing Way, Channel Cove, Biddeford, ME (US) 04005

( * ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/121,123**

(22) Filed: **Apr. 11, 2002**

(65) **Prior Publication Data**

US 2003/0192520 A1 Oct. 16, 2003

(51) **Int. Cl.**[7] ..... **F41B 5/22**
(52) **U.S. Cl.** ..... **124/44.5**
(58) **Field of Search** ..... 124/24.1, 44.5

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | | |
|---|---|---|---|---|
| 3,342,173 | A | | 9/1967 | Ferguson |
| 4,407,261 | A | * | 10/1983 | Elliott |
| 4,676,220 | A | | 6/1987 | Pietraszek |
| 4,685,439 | A | * | 8/1987 | Cosentino |
| 5,415,154 | A | | 5/1995 | Angeloni |
| 5,503,136 | A | | 4/1996 | Tone |
| 5,606,961 | A | | 3/1997 | Basik et al. |
| 5,632,263 | A | * | 5/1997 | Sartain ..... 124/44.5 |
| 5,676,121 | A | | 10/1997 | Bizier |
| 5,722,381 | A | | 3/1998 | Mizek |
| 6,021,769 | A | | 2/2000 | Troncoso |
| 6,044,832 | A | * | 4/2000 | Piersons ..... 124/44.5 |
| 6,082,348 | A | | 7/2000 | Savage |
| 6,202,635 | B1 | * | 3/2001 | Evans ..... 124/44.5 |

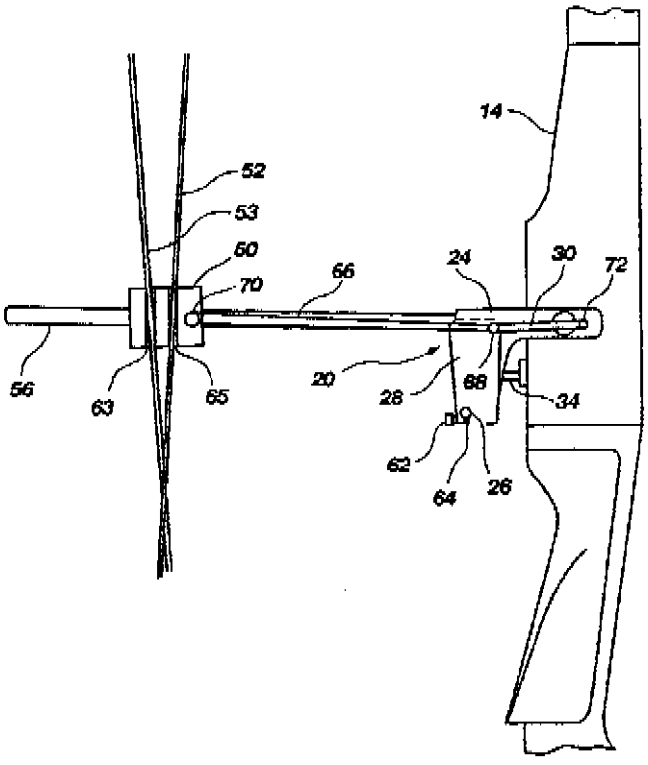
* cited by examiner

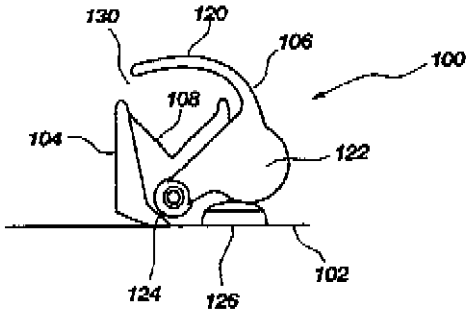
*Primary Examiner*—John A. Ricci
(74) *Attorney, Agent, or Firm*—Morriss O'Bryant Compagni, P.C.

(57) **ABSTRACT**

An arrow rest comprises an arrow rest support arm pivotally mounted to the riser of a bow. The support arm is coupled to a cable guide of the bow through linkage that causes the support arm to rise relative to the riser of the bow as the cable is drawn to launch an arrow. As the cable is released to launch an arrow, the arrow rest drops to allow the fletching to pass the arrow rest without contact. In addition, as the arrow rest moves from a first resting position to a second pre-launch position and back again, a clamping mechanism grasps the shaft of the arrow when the support arm is in the resting position. As the support arm moves to the pre-launch position, the clamping mechanism releases the shaft of the arrow so that the arrow can be freely launched from the support arm without interference from the clamping mechanism.

**54 Claims, 11 Drawing Sheets**



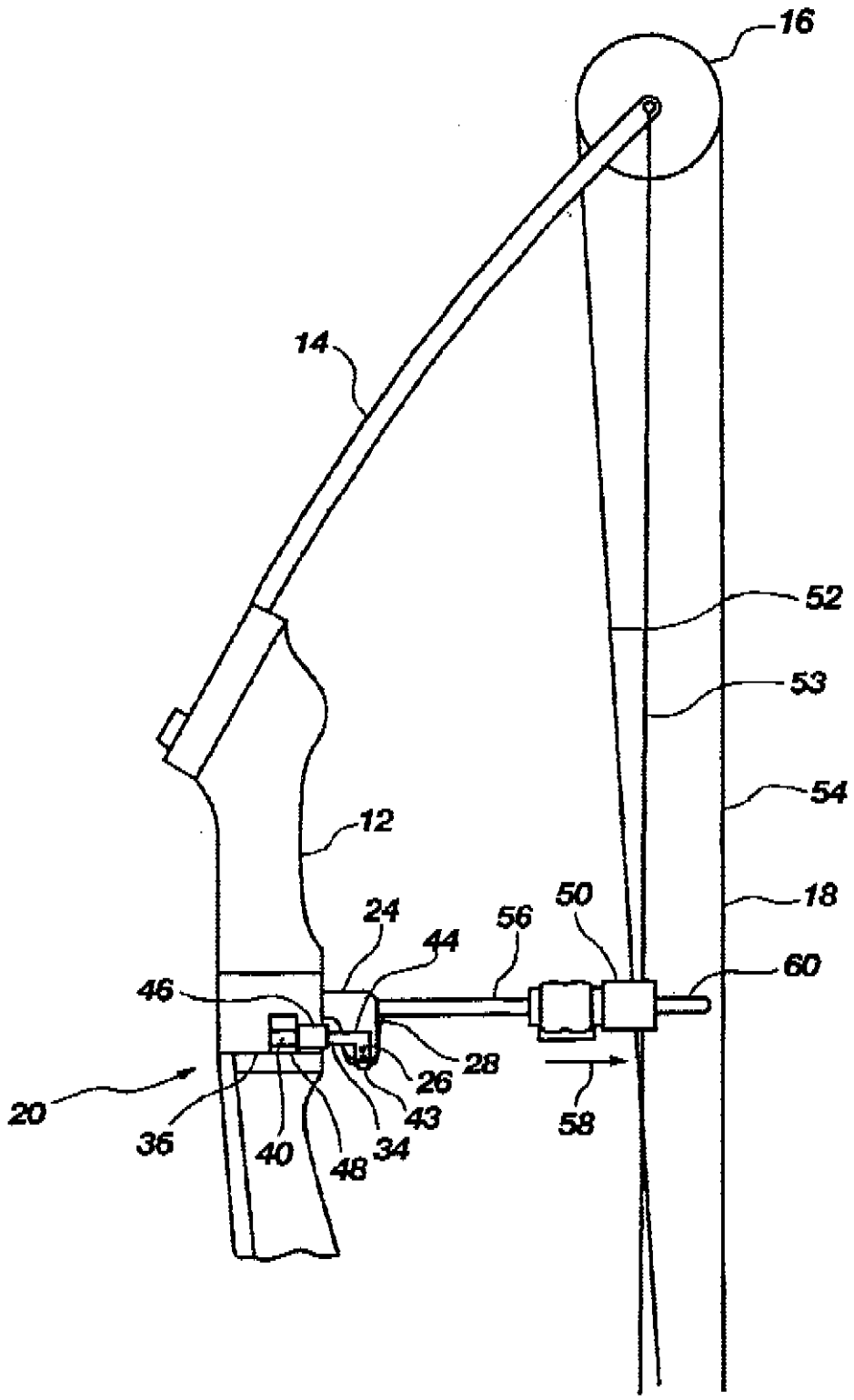



FIG. 1B

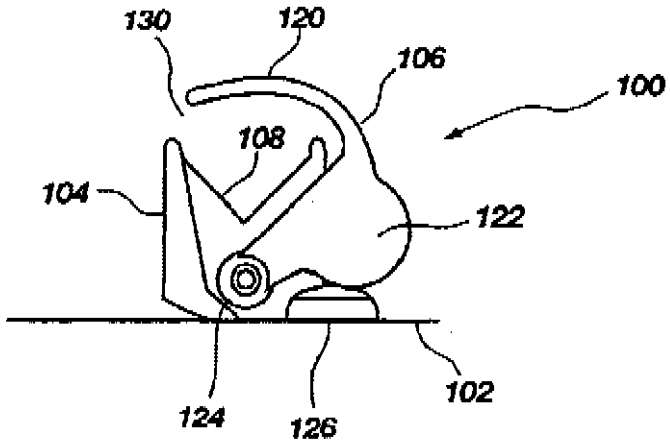



FIG. 2A

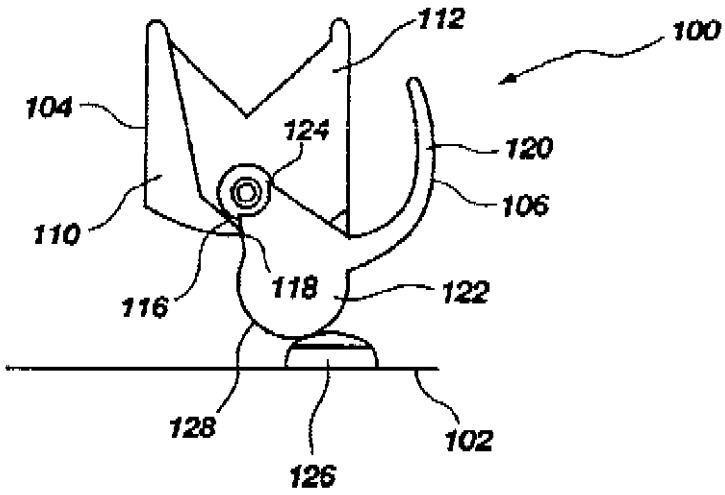



FIG. 2B

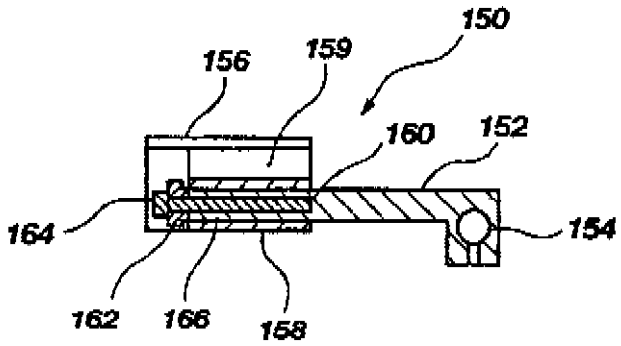



FIG. 3

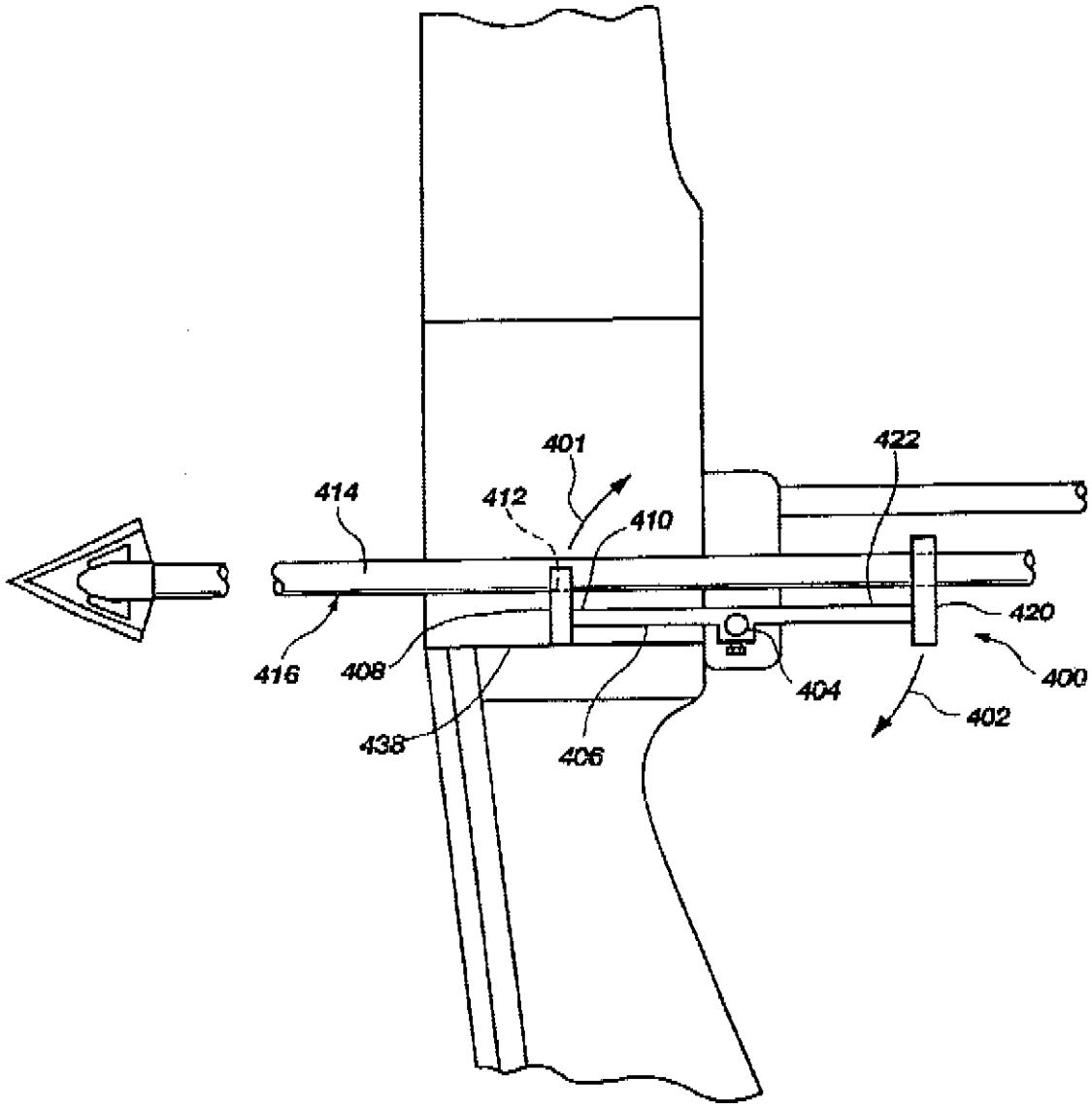

401
422
414
412
410
420
416
408
404
400
402
438
406

FIG. 6A

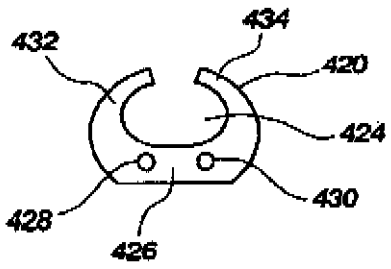

434
432
420
424
430
428
426

FIG. 6B

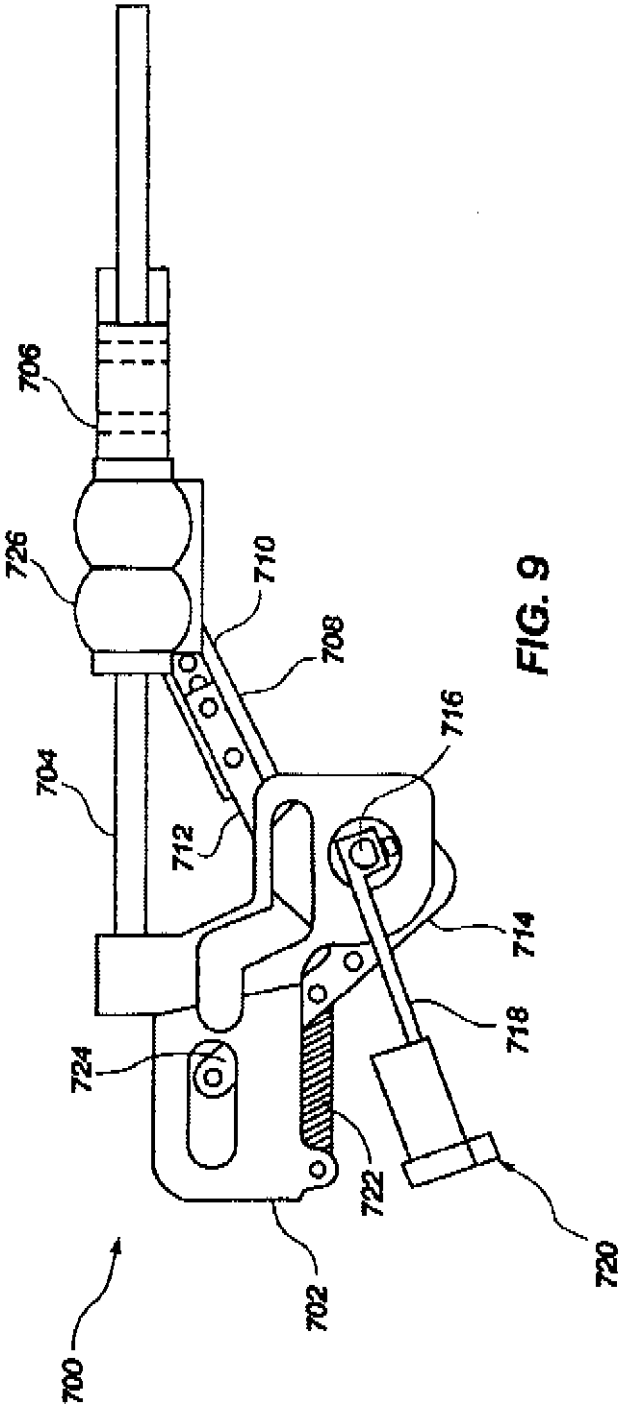

706
726
710
708
704
716
712
714
718
724
722
720
702
700

FIG. 9

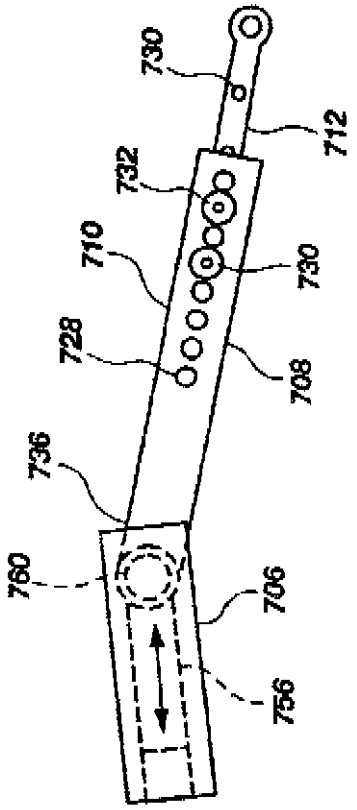

730
712
732
710
730
728
708
736
760
706
756

FIG. 10

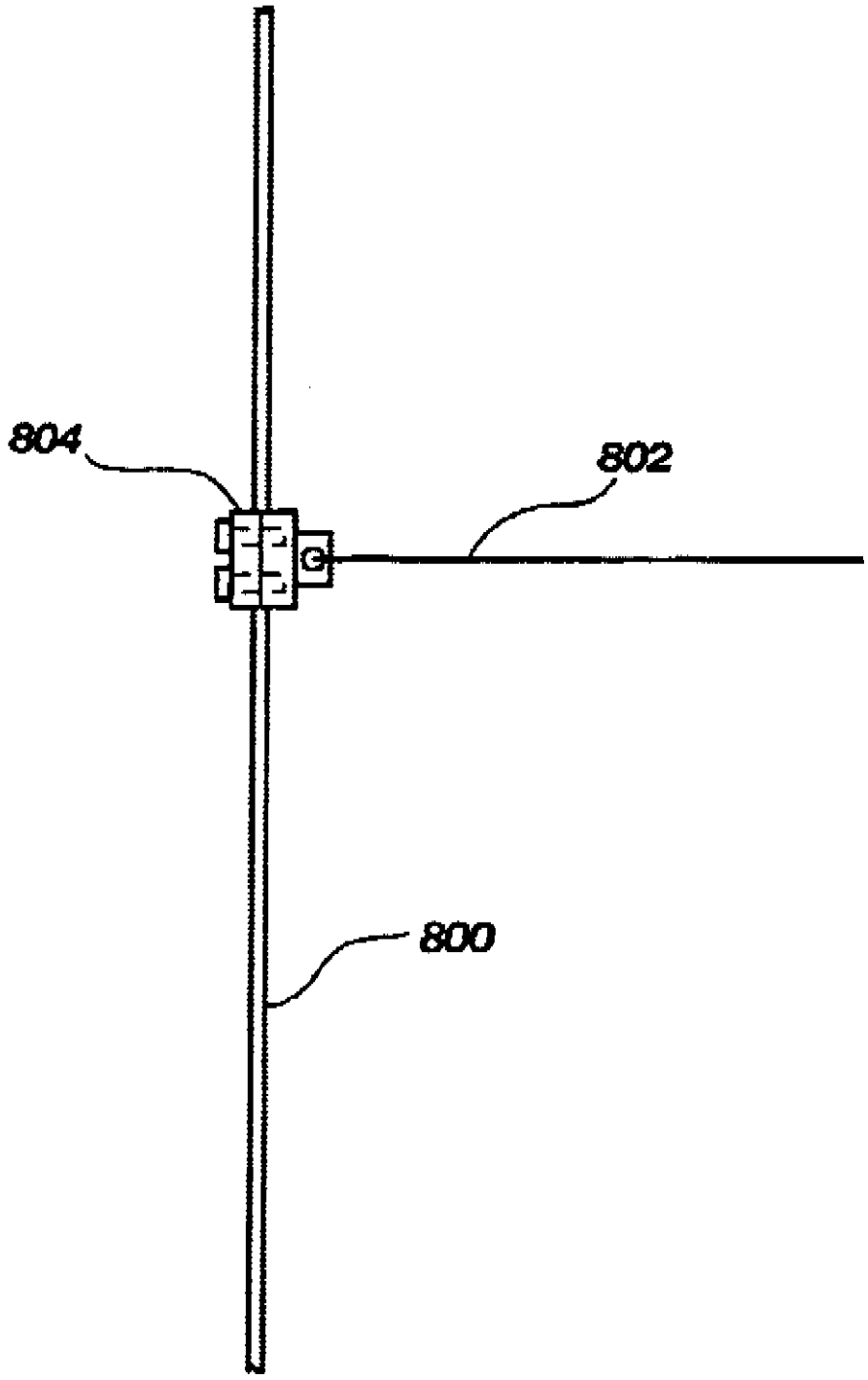



FIG. 15

# SHAFT CLAMPING ARROW REST

## BACKGROUND

1. Field of the Invention

The present invention relates to an apparatus for supporting the shaft of an arrow when launched from an archery bow. More particularly, the present invention relates to an arrow rest that can move from a first, resting position to a second ready position as the sting of the bow is drawn to a firing position. In the resting position, the arrow rest holds the shaft of the arrow relative to the arrow rest. In the ready position, the arrow rest supports the shaft of the arrow but no longer clamps the shaft of the arrow to allow the arrow to freely launch from the arrow rest.

2. Description of the Prior Art

Over the past few decades, the interest in the sport of archery in the United States has significantly increased. In particular, the number of sportsmen and sportswomen who hunt using a bow has continued to rise. As a result of this growth, the number of archery products manufacturers and the development of new archery products has greatly expanded.

For many years, recurve bows were the only kind of bow available. Once the compound bow was introduced, the interest in and, naturally, the number of accessories for compound bows increased. Such accessories include various types of sighting apparatuses, stabilizing devices, vibration dampening device and arrow rests for supporting the shaft of the arrow when an arrow is drawn prior to launching. The first arrow rests typically comprised a V-shaped tab of plastic that was attached to the riser of the bow. With such devices, the shaft of the arrow rests within the V of the arrow rest while the archer aims the bow toward a target. It was discovered that the friction between the shaft of the arrow and the arrow rest and/or the contact between the arrow rest and the feathers or fletching on the aft end of the arrow can effect the trajectory and direction of flight of the arrow.

To address this problem, many arrow rests are formed from a flexible material, such as plastic. By using a flexible material, the arrow rest can deflect out of the way when the arrow is launched from the bow. Such a plastic arrow rest, however, has its drawbacks. For example, the plastic tab arrow rest typically deflects in a direction transverse to the direction of flight of the arrow. As such, contact between the fletching of an arrow and the arrow rest can still effect the flight of the arrow.

In order to provide a more stable support for an arrow and to allow the arrow rest to flex away from the shaft in the direction of the flight of the arrow, arrow rests have been developed that include a pair of arms. The tips of the arms support the shaft of the arrow. The arms are typically attached to or integrally formed with a rotatable shaft that is rotatably mounted to a mounting bracket. The mounting bracket is configured for attachment to the riser of a compound bow. In addition, the shaft is biased relative to the mounting bracket so that the arms are biased toward the shaft of an arrow when the arrow is resting upon the tips of the arms. The biasing of the arms is provided by a coil spring interposed between the mounting bracket and the rotatable shaft.

When an arrow is launched from a bow utilizing such an arrow rest, the impact of the fletching of the arrow upon the arms of the arrow rest will cause the arms to rotate downwardly. After the fletching pass the arms, the coil spring then causes the arms to rotate back to their pre-launch position. This contact between the fletching and the arrow rest can effect the trajectory of the arrow by applying drag, and/or torque to the shaft of the arrow as the arrow is released.



Muzzy Products Corp. in Georgia has attempted to provide an arrow rest that eliminates the effects of the arrow rest on the flight of the arrow. In the Muzzy device, the arrow rest lifts the shaft of the arrow to a pre-shoot position at full draw and falls away as the arrow is released. The arrow rest rises from a resting position to a pre-launch position by being coupled between the riser and the cable slide. The arrow rest is coupled between the riser and the cable slide with a pair of arms that are pivotally connected to one another and to the riser and cable slide. As the bow is drawn to a pre-launch position sliding the cable guide along the cable guard away from the riser, the pair of arms straighten relative to one another. As the pair of arms straighten, the arrow rest rises relative to the riser. When the arrow is released, the action of the cable causes the cable guide to slide back to its resting position. The movement of the cable guide back to its original position causes the arrow rest to drop.

Another example of a "fall-away" arrow rest is manufactured by Trophy Taker of Montana. The arrow rest is coupled to the riser and tide with a tether to the cable of the bow. The arrow rest is actuated from a resting position to a pre-launch position at full draw by the pull on the tether generated by the cable. As tension is applied to the tether, the arrow rest is caused to be rotated from a first position to a second position that raises the shaft of the arrow. As the arrow is released, the tension on the tether is removed and the arrow rest is allowed to drop by rotation of the arrow rest relative to the riser. Such fall-away arrow rests, while attempting to resolve some of the problems caused by arrow rests, do not address a significant disadvantage of all arrow rests.

When an archer draws an arrow along the arrow rest, one hand grasps the grip of the bow and the other draws the cable. The shaft of the arrow rests on the arrow rest but is otherwise unsupported along its length. As most arrow rests provide a V-shaped notch for supporting the shaft of the arrow or a pair of arms whose tips support the shaft therein between, any sudden movement of the bow can cause the shaft of the arrow to fall from the arrow rest. Often times, such the shaft of the arrow falls from the arrow rest when an archer has pulled the cable to a full draw, but decides to controllably return the cable to its resting position without launching the arrow. Because of the jerking force of such a maneuver, the archer is often unable to maintain the shaft of the arrow on the arrow rest. As the arrow falls, it may impact the riser of the bow generating a noise that can startle game.

In a hunting setting, noise is a major factor in the ability to stalk an animal. Hunters take great strides to maintain silence in the wild so as to not startle the game. As most hunters will attest, the "clanking" of the shaft of a falling arrow against the riser is sure to startle most game causing the animal to flee.

The Muzzy device attempts to address this issue by providing a relatively large V for supporting the shaft of the arrow. Even with the Muzzy device, however, an archer is not likely to be able to move through underbrush with a loaded arrow without the arrow falling from the arrow rest.

Another example of an arrow rest that prevents the shaft of the arrow from falling from the arrow rest is comprised of a cylindrical aperture supporting a plurality of inwardly extending bristles that form a small opening in the center of the bristles for supporting the shaft of the arrow. As the arrow is launched, the fletching can pass through the bristles.

compound bow comprises a typical bow assembly having a riser **12** and an upper limb **14** to which an upper pulley or cam is rotatably attached. A cable **18** is provided for launching an arrow (not shown). It should be noted, however, that while the bow **10** is illustrated as having a particular configuration, the arrow rest **20** of the present invention could be adapted to be attached to and function with any compound bow in the art as well as those developed in the future.

The riser **12** of the bow **10** defines a laterally offset portion **22** through which the arrow is launched. The offset portion **22** allows the cable **18** to be in generally vertical alignment with the limb **14** and the remainder of the riser **12** while providing a channel or window to allow positioning of an arrow therein while maintaining proper alignment of the arrow relative to the cable **18** for launching. The arrow rest **20** is positioned within the offset portion **22** of the riser **12** so as to hold the arrow in proper alignment with the cable **18**.

The arrow rest **20** is comprised of a mounting bracket **24** mounted to the riser **12** of the bow **10**. A rotatable shaft **26** is coupled to the mounting bracket **24** and attached to a pivotable member **28**. The pivotable member **28** is linked to the cable guide (not visible) such that movement of the cable guide causes pivoting of the pivotable member **28** and corresponding rotation of the rotatable shaft **26**. The pivotable member **28** is biased relative to the mounting bracket **24** as with coil spring **30** attached to post **32**. An arrow rest support arm **34** is attached to the shaft **26** such that rotation of the shaft **26** causes the support arm **34** to pivot. The pivotable member **28** is biased in a direction that forces the support arm **34** toward the shelf **36** of the riser.

The arrow rest **20** is provided with a clamping member **40** that is coupled to the support arm **34**. In the resting position as shown, the clamping member **40** extends over the support arm so as to clamp the shaft of an arrow relative to the support arm **34**. The clamping member **40** can rotate relative to the support arm **34** about its attachment point **42**.

As further illustrated in FIG. **1B**, the mounting bracket **24** extends behind the riser **12** and is fixedly attached thereto. The support arm **34** is pivotally coupled to the mounting bracket **24** with the rotatable shaft **26** that fits within the arm **35** and is rigidly held relative thereto with a set screw **43**. As the pivotable member **28** pivots relative to the mounting bracket rotating the rotatable shaft **26**, the arm **34** to rises off of the shelf **36** from a resting position as shown to a pre-launch position above the shelf **36**. The arm **34** is comprised of a first arm portion **44** that may be formed of a rigid material such as metal or a harder plastic and a second portion **46** that may be formed from a softer material such as rubber or a softer plastic. The first portion **44** provides structural support for the second portion and is capable of resisting damage from the forces encountered by the returning to or being present at the resting position.

The shaft of an arrow rests on the second portion **46**. Because the arm **34** returns to its resting position as the arrow is launched, it is not necessary to form the second portion **46** from a friction limiting material such as TEFLON or the like. That is, because the arrow does not slide to any substantial degree along the second portion **46** as the arrow is launched, it is not necessary to form the second portion **46** from a slick material as is commonly used on other types of arrow rests known in the art that maintain contact with the shaft of the arrow as the arrow is launched.

The clamping member **40** forms part of a clamping mechanism for grasping the shaft of the arrow when the arrow rest is in the resting position. As the arm **34** is lifted, the clamping member **40** opens to release the shaft of the arrow.

Whether launched or simply controllably returned to the resting position, the engagement of the clamping member **40** with the shelf **36**, or more particularly with a clamping member abutment structure **48**, causes the clamp to close relative to the second portion **46**. Because the clamping member **40** is formed from a flexible material such as a softer plastic or rubber material, the shaft of an arrow can be inserted between the clamping member **40** and the second portion **46** by slightly flexing open the clamping member **40** to allow passage of the shaft of an arrow therein.

Actuation of the arrow rest **20** is controlled by coupling or linking the arrow rest **20** to the cable slide **50**. The cable slide **50** is commonly found on compound bows but is primarily used to position the cable spans **52** and **53** from lying in the same vertical plane as the primary cable portion **54** that is used to launch an arrow. That is, the cable spans **53** and **54** are moved to one side or offset from the vertical plane defined between the primary cable portion **54** and the arrow rest **20** so as to provide clearance for the shaft and fletching of an arrow. The cable slide **50** slides along a cable guide **56** that is rigidly secured relative to the riser **12**.

The cable guide **56** is comprised of an elongate shaft attached to the mounting bracket **24**. In a typical compound bow, the cable guide **56** is attached directly to the riser **12** at a position above the vertical location of the arrow rest relative to the riser. By moving it to the mounting bracket, the cable slide **50** is positioned in alignment with the arrow rest **20** for allowing a substantially horizontal linkage between the arrow rest and the cable slide **50**.

As the primary cable portion **54** is drawn, the cable slide **50** will move in the direction of the arrow **58** toward the proximal end **60** of the cable guide **56**. That is, as the cable portion **54** is pulled away from the riser **12**, the end of the limb **14** containing the pulley **16** will flex away from the riser **12** causing the cable spans **52** and **53** to also move away from the riser **12** so as to maintain their vertical orientation between the upper and lower pulleys or cams. By linking the pivotable member **28** to the cable slide **50** at a position spaced from its center of rotation, the movement of the slide **50** away from the riser will cause a corresponding rotation of the pivotable member **28**. Also, because there is tension between the pivotable member **28** in a direction toward the riser **12** a cable slide stop **62** is provided on the cable guide **56**. The cable stop **62** properly position the cable slide **50** relative to the cable guide **50** so as to maintain substantial vertical alignment of the cable spans **52** and **53**, that is without pulling the cable spans **52** and **53** toward the riser **12**, when the cable **18** is returned to a resting position as shown.

As shown in FIG. **1C**, the pivotable member **28** is rotatably coupled to the mounting bracket **24** with the rotatable shaft **26**. The shaft **26** is fixedly held relative to the pivotable member **28** with a set screw **62** that spans a slot **64** defined by the pivotable member **28**. The shaft **26** can rotate relative to the mounting bracket **24** as by passing through a transversely extending bore through the mounting bracket **24** that may be lined with a plastic or other type of bushing or bearing surface to allow free rotation of the shaft **26** relative to the mounting bracket **24**. Of course, in a simpler version, the shaft could be integrally formed with the pivotable member by forming an L-shaped member with one leg of the L-shaped member rotatably coupled to the mounting bracket **24** and the other leg pivoted to rotate the first leg.

The pivotable member **28** is linked to the cable slide **50** with a biasing member **66**. The cable slide **50** is provided with a pair of slots **63** and **65** for receiving and laterally

course, those of skill in the art will appreciate after understanding the principles of the present invention that many other mechanisms may be employed to provide a clamping feature relative to the arrow rest for grasping the shaft of an arrow when the arrow is in a resting position. The present invention in intended to cover each and every variation of the present invention and equivalents thereof.

For example, as shown in FIG. **5**, the clamping arrow rest, generally indicated at **300** is comprised of a pair of scissor type clamping members **302** and **304** that define a central aperture **306** therein between for receiving an holding the shaft of an arrow. As such, each clamping member **302** and **304** defines a crescent shaped recess **308** and **310**, respectively, for engaging the sides of the shaft of an arrow. The clamping members **302** and **304** are biased relative to one other in a direction that encourages separation of the recesses **308** and **310**. In addition, the clamping member **302** and **304** can rotate relative to each other about a central shaft **312**. A biasing device **314**, such as a coil spring, is provide on the shaft **312** to bias the clamping members **302** and **304** into an open position. The clamping member **302** is provided with a recess **316** that defines and abutment surface **318** for abutting against the arcuate surface **320** of the clamping member **304**. When the surface **320** is engaged against the surface **318**, the clamping members **302** and **404** are in an open position. The surface **322** and **324** then define a V-shaped notch for supporting the shaft of an arrow.

As the arrow rest returns to a resting position in which the legs of the clamping members **302** and **304** engage the shelf **326** of the riser **328**, the curved surfaces of the legs, such as surface **320**, slide along the shelf **326** until the bases of the surface **322** and **324** abut to hold the clamping members slightly apart as shown.

In FIG. **6**A, an arrow rest, generally indicated at **400**, is caused to pivot as indicated by arrows **401** and **402** about a rotatable shaft **404**. An arrow rest arm **406** is attached to the shaft **404**. The arm **406** extends on both sides of the shaft **404**. A shaft support **408** is attached to the distal end **410** of the arm **406** and defines a channel **412** for supporting the shaft **414** of an arrow **416**. A clamping device **420** is attached to the proximal end **422** of the arm **406**. As shown in FIG. **6**B, the clamping device **420** is a C shaped member when turned on its side to define a partially enclosed central aperture **424** for receiving the shaft **414** of an arrow **416**. The base **426** of the device **420** is provided with a pair of bores **428** and **430** for receiving threaded fasteners to attach the device **420** to the distal end **422** of the arm **406**. A similar means of attachment may be employed for attaching the shaft support **408** to the proximal end **410**. A pair of crescent shaped arms portions **432** and **434** further define the aperture **424** and are spaced apart at their tips to allow insertion and removal of the shaft **414** of the arrow **416** while securing the shaft **414** in the aperture **424** to prevent the shaft **414** from simply falling out if the device **420** becomes inverted. The device **420** is formed from a soft flexible material such as rubber, foam rubber or foam.

As the arrow rest arm **406** rotates in the direction of arrows **401** and **402**, the shaft support **408** will lift the shaft **414** relative the to the shelf **438** of the riser. As the shaft **414** is lifted and the clamping device **420** lowers, the shaft **414** will be pulled from engagement with clamping device **420** to be free to be launched. When the arrow **416** is released, the arm **406** is biased to return the support **408** to engage the shelf **438** as shown. The rotation of the arm **406**, however, is timed so as to allow the fletching (not shown) of the arrow **416** to pass by the clamping device **420** before the clamping device **420** moves back to a position where it may impact the fletching as it passes the clamping device **420**.

Finally, as shown in FIG. **7** and FIG. **8**, the arrow rest (as previously described) may be coupled to a cable slide with various linkage devices that provide some delay in actuation of the arrow rest relative to movement of the cable slide as an arrow is drawn. As previously discussed, such delay, while not essential, allows the arrow rest to move out of the way of the arrow before the fletching of the arrow passes the arrow rest. In FIG. **7**, the cable slide **500** is provided with a mounting portion **502** that defines a transversely extending bore **504**. A cable **506** (which is coupled to the arrow rest) is secured with a cable stop **508** that is crimped to the end of the cable **506**. The stop **508** is inserted into a coupling device **510** that defines a recess for holding the stop **508** therein and a threaded bore on the other end for receiving a threaded fastener **512**. The fastener **512** is provided with a coil spring **514** that biases the head of the fastener **512** relative to the mounting portion **502**. The fastener **512** extends through the bore **504** and into the coupler **510**. As the cable slide **500** slides along the cable guide **516** in the direction of the arrow, the spring **514** will be compressed to some degree before the cable **506** is moved, thus providing the aforementioned delay.

Similarly, in FIG. **8**, a cable slide **600** is coupled to a cable **602** with a linkage mechanism **604** that includes a threaded fastener **606** inserted through a mounting portion **608** of the cable slide **600** and engages an internally threaded tube-like member **610**. The distal end **612** of the tube **610** is inwardly turned to provide an abutment surface for holding a spring **614** disposed around a threaded shaft **616**. A nut **618** is threaded onto the proximal end of the shaft **616** and can be adjusted to any point along the shaft to allow for adjustability of the linkage mechanism **604** for the particular bow configuration. The shaft **616** is threaded into a coupler **620** having a similar configuration to the coupler **510** shown in FIG. **7**. As the cable slide **600** moves to apply tension in the cable **602**, the spring **614** allows for movement of the slide **600** and the tube **610** before the cable **602** is moved along with movement of the cable slide **600**.

FIG. **9** illustrates yet another embodiment of a self-clamping arrow rest, generally indicated at **700**, in accordance with the present invention. The arrow rest **700** is comprised of a mounting bracket **702** for mounting the arrow rest **700** relative to the riser of a bow (not shown). A cable guide **704** is attached to the bracket **702**. A cable slide **706** for receiving the tuning cables of a compound bow is positioned on and slidable relative to the cable guide. The cable slide **706** is coupled to an adjustable linkage member **708** that is comprised of first and second components. **710** and **712** that can be pinned or otherwise fastened together at discrete points to allow for adjustment of the length of the linkage member **708**.

The linkage member **708** is also coupled at its opposite end to a pivotable member **714** that is rotatably coupled to the bracket **702** by an elongate shaft **716** that extends through the bracket **702** and is rotatable relative thereto. On the other side of the bracket **702** from the pivotable member **714**, an arrow rest arm **718** is attached to the shaft **716**. The arrow rest arm **718** includes a clamping/shaft support assembly **720** that is configured to grasp the shaft of an arrow when the arm **718** is in a resting position and to release the shaft of the arrow when the arm **718** is raised. A biasing member **722** in the form of a coil spring is interposed and connected between the mounting bracket **702** and the pivotable member **714** so as to encourage rotation of the shaft **716** in a counter-clockwise direction and thus downward biasing of the support assembly **720**.

The pivotable member **714** is provided with an arm portion **724** having a plurality of attachment points thereon

3. The arrow rest of claim 2, further comprising a pivotable member fixedly attached to said shaft and coupled to said linkage mechanism whereby movement of said linkage mechanism causes rotation of said pivotable member and rotation of said shaft relative to said mounting bracket.

4. The arrow rest of claim 3, wherein said arm and said pivotable member are on opposite sides of said mounting bracket with said shaft extending on both sides of said mounting bracket.

5. The arrow rest of claim 3, further including a biasing member for biasing said pivotable member relative to said mounting bracket to bias said arm toward said resting position.

6. The arrow rest of claim 1, further including an arrow support member attached to said arm, said arrow support member defining a slot for at least partially receiving a shaft of an arrow.

7. The arrow rest of claim 6, wherein said clamping mechanism is configured to cooperate with said support member for holding the shaft of the arrow relative to said support member when said arm is in said resting position.

8. The arrow rest of claim 1, wherein said clamping mechanism comprises a clamping member having a first portion for holding the shaft of an arrow and a second portion for engaging with an abutment surface to return said clamping member to a clamping position as said arm moves from said pre-launch position to said resting position.

9. The arrow rest of claim 8, wherein said clamping mechanism is biased relative to said arm to an open position so as to automatically open when said arm moves to a pre-launch position.

10. The arrow rest of claim 1, wherein said clamping mechanism comprises a gear assembly for actuating said clamping mechanism from a closed position to an open position as said arm moves from said resting position to said pre-launch position.

11. The arrow rest of claim 10, wherein said gear assembly comprises a rack and pinion gear, said pinion gear engaging teeth on a clamping member for opening and closing said clamping member relative to said arm.

12. The arrow rest of claim 1, wherein said clamping mechanism comprises a pair of clamping members pivotally coupled together so as to grasp a shaft of an arrow when said arm is in said resting position and to release yet support the shaft of the arrow when the arm is in the pre-launch position.

13. The arrow rest of claim 12, wherein said pair of clamping members are biased relative to one another into an open position and are forced to a closed position by abutting against an abutment structure when the arm is moved to the resting position.

14. The arrow rest of claim 1, wherein said clamping mechanism comprises a clamping member secured to a first end of a pivotable arm and a shaft support member secured to a second end of a pivotable arm, said arm being pivotable at a point between said first end and said second end, said clamping member engaging the shaft of an arrow when said arm is in said resting position and releasing the shaft as the arm is rotated causing the shaft support member to lift the shaft of the arrow from the clamping member.

15. The arrow rest of claim 1, wherein said linkage mechanism comprises a linkage member coupled between said arm and a cable slide.

16. The arrow rest of claim 15, wherein said linkage member is resilient.

17. The arrow rest of claim 15, wherein said linkage member comprises a cable coupled to a biasing member for providing bias in said cable.



18. The arrow rest of claim 17, further including a cable adjustment mechanism for adjusting the effective length of the cable between the mounting bracket and the cable slide.

19. The arrow rest of claim 15, further including a stop attached to a cable guide for abutting against said cable slide when said cable slide is in a resting position.

20. The arrow rest of claim 15, wherein said cable slide comprises a linkage receiving portion for receiving a linkage member, said cable slide capable of moving a distance relative to said linkage member before causing a corresponding movement of said linkage member.

21. The arrow rest of claim 20, wherein said linkage member is comprised of first and second components selectively securable relative thereto for adjusting the length of said linkage member.

22. The arrow rest of claim 1, wherein said linkage mechanism comprises a linkage member coupled between said arm and a cable bracket.

23. An arrow rest, comprising:

a mounting bracket configured for attaching to the riser of a compound bow;

a cable guide attached to the mounting bracket;

a cable slide slidably secured to the cable guide and configured for engaging the cable of a compound bow;

an arm coupled to the mounting bracket being pivotable relative thereto from a resting position to a pre-launch position, said arm positioned to support the shaft of an arrow relative thereto when the arm is in said pre-launch position; and

a linkage mechanism coupled between said cable slide and said arm for causing movement of said arm from said resting position to said pre-launch position as the cable of the bow is drawn.

24. The arrow rest of claim 23, further including a clamping mechanism coupled to said arm for holding the shaft of an arrow when the arm is in the resting position.

25. The arrow rest of claim 24, wherein said clamping mechanism is configured to cooperate with a support member for holding the shaft of the arrow relative to said support member when said arm is in said resting position.

26. The arrow rest of claim 24, wherein said clamping-mechanism comprises a clamping member having a first portion for holding the shaft of an arrow and a second portion for engaging with an abutment surface to return said clamping member to a clamping position as said arm moves from said pre-launch position to said resting position.

27. The arrow rest of claim 26, wherein said camping mechanism is biased relative to said arm to an open position so as to automatically open when said arm moves to a pre-launch position.

28. The arrow rest of claim 24, wherein said clamping mechanism comprises a gear assembly for actuating said clamping mechanism from a closed position to an open position as said arm moves from said resting position to said pre-launch position.

29. The arrow rest of claim 28, wherein said gear assembly comprises a rack and pinion gear, said pinion gear engaging teeth on a clamping member for opening and closing said clamping member relative to said arm.

30. The arrow rest of claim 24, wherein said clamping mechanism comprises a pair of clamping members pivotally coupled together so as to grass a shaft of an arrow when said arm is in said resting position and to release yet support the shaft of the arrow when the arm is in the pre-launch position.

31. The arrow rest of claim 30, wherein said pair of clamping members are biased relative to one another into an