



Mr. Chairman and Members of the Committee-

My name is Jerry Davis, and I am a board member of the Montana Bowhunters Association. I appreciate the opportunity to express the MBA's stance on this legislation.

In the late 1990's, due to rapidly expanding technological advances in bowhunting accessories, the bowhunting community and the FWP Commission set regulations regarding legal archery equipment. Commissioners and bowhunters alike saw the need to safeguard the future of our sport. After considerable public input, the Commission appropriately used its authority to adopt the current equipment regulations prohibiting the use of electronic equipment on bows or arrows. These regulations are consistent with the Pope and Young Club's definitions for archery equipment, deemed to be the most ethical and fair-chase standards in bowhunting.

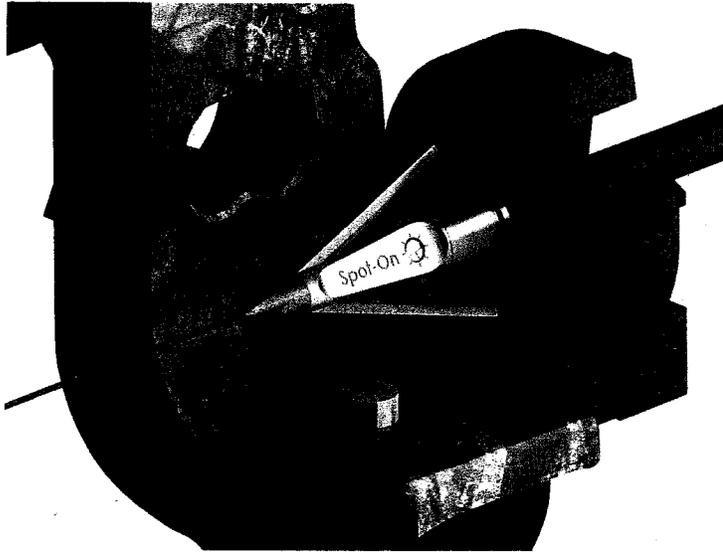
The recent push for electronic equipment fosters a misguided message that bowhunters cannot be effective without continually advancing technology. Allowing an exception for the use of lighted nocks introduces the first of many electronic devices for which exceptions will be requested. The current regulations are crystal clear. Deviation from the current regulations will create all sorts of gray areas for devices to be introduced.

There are now arrows outfitted with laser broadheads. Laser sights are now available for bows. Many say that a bow mounted camera along with lighted nocks will allow the shooter to replay their shot and better determine arrow placement. There is a patent pending for a GPS broadhead, and it's only a matter of time before it will be marketed and also seem like a "better mousetrap." Where will this all end? We've provided information in your packet to illustrate these devices. We are very concerned with this exception to the statute because it opens the door for other exceptions. Just as you deliberate on this bill now, future legislators will be faced with similar exceptions to the statute because a faction of bowhunters feels they need the latest device in order to effectively recover animals. Bowhunting requires discipline, maturity, woodsmanship, and persistence in tracking and recovering animals. All of those qualities are far more important to the preservation of ethical bowhunting than ever-advancing technology.

We oppose this legislation because it undermines the clarity of the current regulations. Exceptions to the statute and regulations will create a "moving target" of legal equipment which will alter the nature of bowhunting. The alteration of the law sets a bad precedent which shifts decision-making from a sportsmen's forum, the FWP Commission, to the legislature, where many legislators are unfamiliar with the background of our issues. As an organization, we carefully consider all of the various impacts which equipment has on our seasons, and guide our membership towards actions which serve the best interests of bowhunting. We believe allowing this exception to the statute is not in the best interests of bowhunting. We urge you to vote no on HB26.

Thank you.

Laser Broadhead



Take aim at laser precision for the accuracy boost you need! The Spot-On™ Laser Broadhead features an internal micro-laser that activates at full-draw, projecting a daytime-visible beam. Every Spot-On Laser features an adjustable set screw that allows the beam to be adjusted 24" of elevation at 30 yards as well as for windage. This allows each broadhead and arrow to be 'sighted in' with deadly, pin-point accuracy out to 70 yards!

Laser Broadhead details:

- Laser activates via a bow-mounted magnet
- **Up / down and left / right set screw allows you to adjust the laser beam for windage and elevation**
- Broadhead is 125 or 150-gr., depending on which of the included tips you use (includes standard and large tips)
- **Cutting diameter is 1 1/4"**
- Can be used with or without sight pins and will aid in set-up and calibration
- **Disposable battery, included, lasts up to 100 shots.**



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(54) **METHOD AND DEVICE FOR LOCATING GAME SHOT WITH AN ARROW**

(52) **U.S. Cl. 473/578**

(76) **Inventor: Jeff McFatrige, Hillsboro, TX (US)**

(57) **ABSTRACT**

(21) **Appl. No.: 13/134,531**

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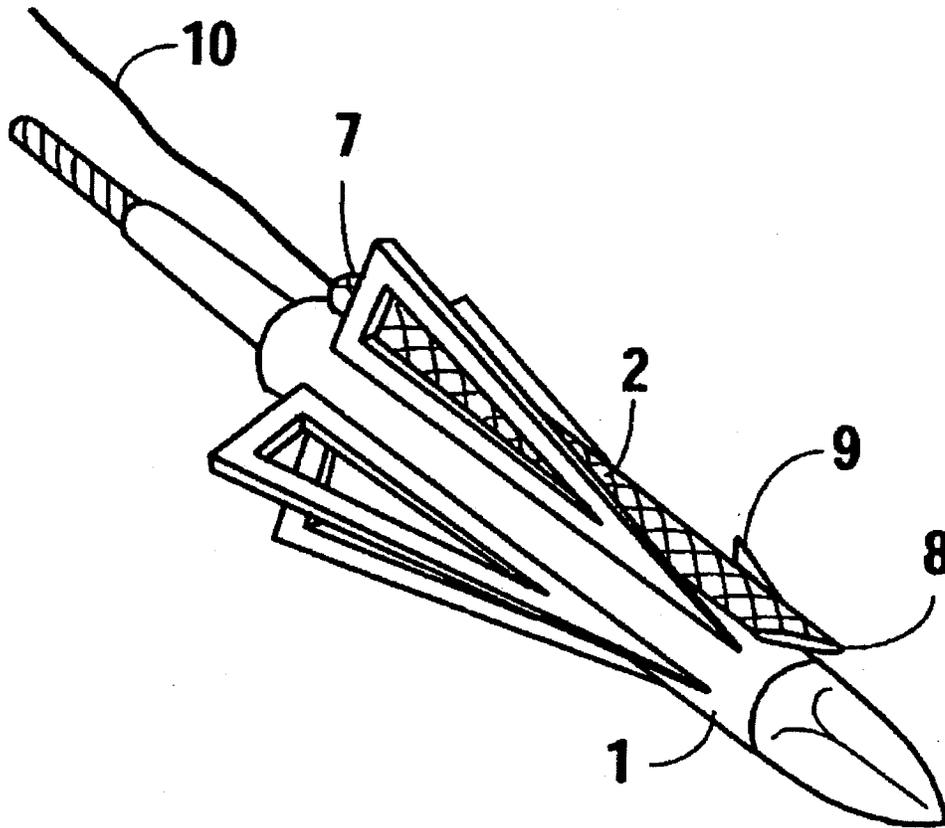
Related U.S. Application Data

(60) **Provisional application No. 61/397,334, filed on Jun. 10, 2010.**

Publication Classification

(51) **Int. Cl. F42B 6/04 (2006.01)**

The invention disclosed herein is a device and method to enable a bow hunter to track a game animal wounded with an arrow through brush or conditions of low light. The device disclosed herein is composed of a hollow cylindrical tube which is beveled to a sharp point on the end of the tube which enters the body of the animal first. Inside the hollow cylindrical tube is a battery and GPS microchip which, on impacting the animal's body makes contact so as to provide electrical power to the GPS microchip. The GPS microchip then emits a GPS signal which can be detected by a GPS receiver and direct the bow hunter to the wounded animal.





Rac-Em-Bac brings innovative design and thinking to bowhunters everywhere with the new Bow-Mag Arrowhead. The Bow-Mag Arrowhead combines the stealth delivery of an arrow with the power of a .38 or .357 Magnum bullet, effectively turning your compound bow or crossbow into an even deadlier, silent hunting tool. The Bow-Mag Arrowhead has been designed with medium-to-large game & nuisance animals in mind, bringing the Magnum punch of a bullet directly to your target. Simply secure your .38 or .357 Magnum round into the Bow-Mag Arrowhead cylinder, turn until the casing threads lock in place, then attach to your standard arrow shaft or crossbow bolt. The Bow-Mag is designed with safety in mind, ensuring that rounds will not fire until they hit your intended target, delivering firepower, Magnum impact and maximum stopping force where you want it.

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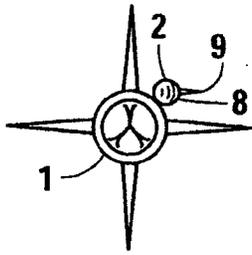


Fig. 1

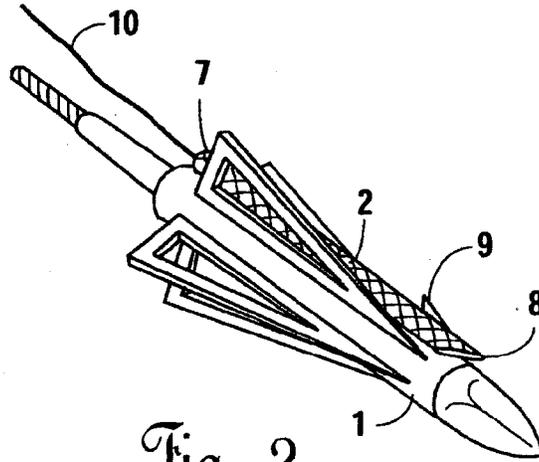


Fig. 2

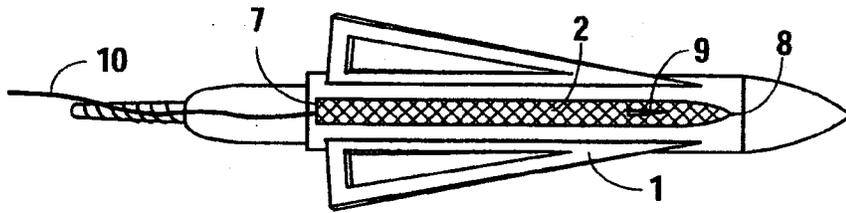


Fig. 3

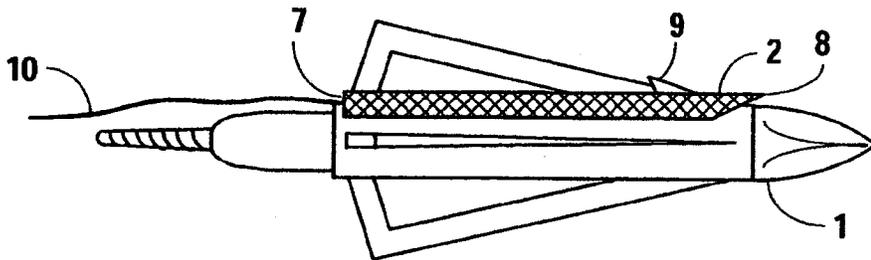


Fig. 4

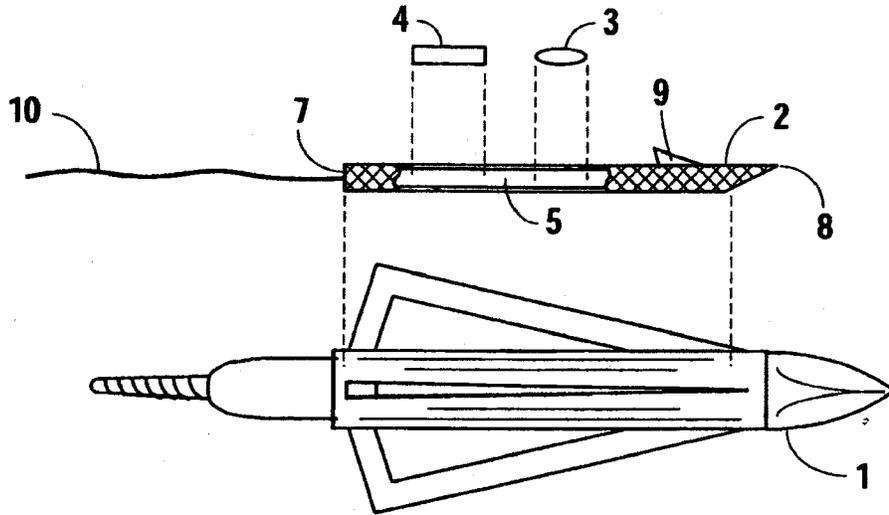


Fig. 5

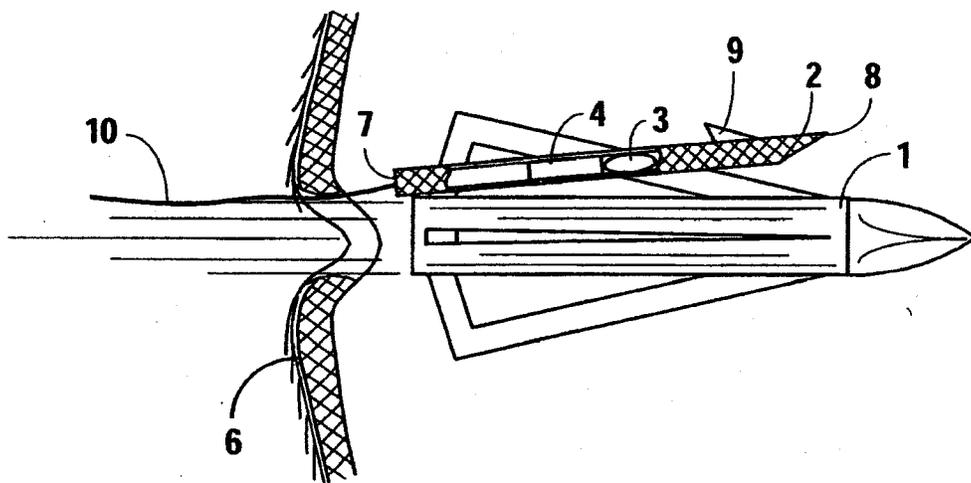


Fig. 6

METHOD AND DEVICE FOR LOCATING GAME SHOT WITH AN ARROW

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application seeks priority to U.S. Provisional Patent Application No. 61/397,334 filed on Jun. 10, 2010.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] The invention disclosed herein was not the subject of any federally sponsored research or development.

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

[0003] Not applicable.

REFERENCE TO A SEQUENCE LISTING

[0004] Not applicable.

BACKGROUND OF THE INVENTION

[0005] Hunting game animals with bow and arrow has been a necessity and sport for many centuries. The bow hunter enters the prey's habitat in the wilderness and either stalks his game or lies in wait for the game to appear. When the bow hunter sights his quarry, the bow hunter takes aim and shoots an arrow at the game animal to mortally injure the game animal. On some occasions the arrow may strike the game animal and kill it instantly or very quickly. In that event, the game animal drops to the ground at or near where it was struck with the bow hunter's arrow. Finding this dead animal in the brush is relatively easy. The bow hunter travels to the place where he last saw the game animal after firing the arrow and usually finds the game animal.

[0006] In some situations, however, the game animal is not immediately killed by the arrow and may run a great distance into the brush from the place in which the game animal was struck by the arrow. When the injured game animal runs away into the brush, it may be very difficult, if not impossible to find the game animal. In the event the game animal is not found, the meat which might be obtained from the game animal is wasted. What is needed in the art is a method by which a game animal which has been shot by a bow hunter's arrow and which runs off into the brush may be easily tracked and found.

BRIEF SUMMARY OF THE INVENTION

[0007] The invention disclosed herein is a device and method by which an animal which has been shot by a bow hunter's arrow and who runs into the brush may be easily tracked and found. The invention consists of a small hollow cylindrical tube, beveled to a sharp point at one end attached to the arrow tip. One type of arrow tip is a broadhead. Inside the small hollow cylindrical tube beveled to a sharp point at one end is a battery powered global positioning system (GPS) tracking chip which is lodged into the skin or outer musculature of the game animal when the arrow impacts the game animal. Once lodged into the skin or outer musculature of the game animal, the GPS tracking chip is activated and sends out a signal which may be detected with a GPS receiver. The GPS receiver may be developed as a software program which may be downloaded onto any wireless electronic device that will allow software applications downloads. When the game animal, injured by the bow hunter's arrow runs into the brush, the GPS tracking chip sends a signal which is detected by a GPS

receiver carried by the bow hunter. The coordinates of the GPS signal received from the GPS tracking chip attached to the injured game animal may be plotted by the GPS receiver and by following those coordinates the injured game animal may be found. The meat from the game animal may then be harvested for consumption rather than wasted.

DESCRIPTION OF THE ATTACHED DRAWING FIGURES

[0008] A better understanding of the invention disclosed herein may be had by examination of the drawing figures described as follows:

[0009] FIG. 1 is a front view of the tip of the arrow's broadhead tip showing the hollow cylindrical tube containing the GPS tracking chip and power supply attached to the broadhead tip of the arrow.

[0010] FIG. 2 is an oblique side view of the broadhead tip of the arrow showing the arrangement of the hollow cylindrical tube containing the GPS tracking chip and power supply as attached to the broadhead tip of the arrow.

[0011] FIG. 3 is a top view of the broadhead tip of the arrow showing the attachment of the hollow cylindrical tube containing the GPS tracking chip and power supply to the broadhead tip of the arrow.

[0012] FIG. 4 is a side view of the broadhead tip of the arrow showing the attachment of the hollow cylindrical tube containing the GPS tracking chip and power supply to the broadhead tip of the arrow.

[0013] FIG. 5 is a side view and cross section of the hollow cylindrical tube demonstrating the arrangement of the battery and GPS tracking chip inside the hollow cylindrical tube.

[0014] FIG. 6 is a side view of the broadhead tip of the arrow demonstrating that the hollow cylindrical tube containing the GPS tracking chip and battery separates from the broadhead tip of the arrow after entering the body of the game animal.

DETAILED DESCRIPTION OF THE INVENTION DISCLOSED HEREIN

[0015] In one embodiment of the invention disclosed herein and as shown in FIGS. 1, 2, 3, and 4, a hollow cylindrical tube 2 containing a GPS signal emitting device such as a GPS tracking chip and a power supply such as a battery is attached to the broadhead tip 1 of the arrow with the beveled end 8 of the hollow cylindrical tube 2 facing toward the front of the broadhead tip 1 of the arrow and toward the direction of travel of the arrow. The hollow cylindrical tube 2 consists of a first end 8 which is beveled to a sharp point and a second end 7 which is the end opposite the first end 8. The first end 8 and second end 7 of the hollow cylindrical tube 2 are separated by a body. An antenna 10 extends outside the second end 7 of the hollow cylindrical tube 2. On the top side of the hollow cylindrical tube 2 is a barb 9 which attaches to the flesh of the animal and prevents the hollow cylindrical tube 2 from becoming dislodged from the animal. Both the first end 8 and the second end 7 of the hollow cylindrical tube 2 are sealed. This arrangement with the first end beveled to a sharp point 8 of the hollow cylindrical tube 2 facing toward the direction of the arrow's flight facilitates entry of the hollow cylindrical tube 2 containing the GPS tracking chip and battery into the skin of the game animal. As shown in FIGS. 1, 2, 3, 4 the hollow cylindrical tube 2 containing the GPS tracking chip and battery is attached to a broadhead tip 1 of an arrow. In other embodiments of the invention disclosed herein, the

hollow cylindrical tube 2 containing the GPS tracking chip and battery could be attached to many different types, shapes and sizes of arrow tips.

[0016] FIG. 5 shows a cross section of the hollow cylindrical tube 2 in which the arrangement of the GPS tracking chip 3 and battery 4 within the body of the hollow cylindrical tube 2 is shown. The GPS tracking chip 3 is located nearer to the first end 8, which is beveled to a sharp point, of the hollow cylindrical tube 2 as compared to the battery 4 which is located toward the second end 7 of the hollow cylindrical tube 2. A gap 5 exists between the GPS tracking chip 3 and the battery 4. The purpose of the gap 5 is to prevent premature discharge of the battery's 4 electric power while the arrow is in storage or otherwise not in actual use in hunting for a game animal. The antenna 10 is attached to the GPS tracking chip 3.

[0017] As shown, FIG. 6, two events occur when the arrow tip 1 enters the body of the game animal 6. First, the hollow cylindrical tube 2 containing the GPS tracking chip 3 and battery 4 separates from the broadhead tip 1 of the arrow and remains located in the skin and musculature of the game animal. The barb 9 located on the body of the hollow cylindrical tube 2 attaches to the flesh of the animal and prevents the hollow cylindrical tube 2 containing the GPS tracking chip 3 and battery 4 from becoming dislodged and falling out of the animal. The antenna 10 which extends out of the second end 7 of the hollow cylindrical tube 2 is connected to the GPS microchip 3 and is of sufficient length to extend outside of the animal 6 so that the GPS signal generated by the GPS tracking chip 3 may be detected by a GPS receiver. Second, the force of impact of the arrow with its broadhead tip 1 to which the hollow cylindrical tube 2 containing the GPS tracking chip 3 and battery 4 is attached, causes the GPS tracking device 3 and battery 4 to come into contact eliminating the gap 5 shown in FIG. 5. Bringing the GPS tracking chip 3 into contact with the battery 4 causes a flow of electricity from the battery 4 to the GPS tracking chip 3. Now supplied with electricity from the battery 4, the GPS tracking chip 3 can send out a GPS signal which can be detected by a GPS receiver. The bow hunter carrying a GPS receiver can now track the injured animal which may have run some distance into the brush. By following the GPS signal emitted by the GPS tracking chip 3, the hunter can find the animal and harvest the meat for consumption. Any device which can detect a GPS signal may be used to capture the GPS signal emitted from the GPS tracking chip 3. Those devices include dedicated GPS receivers and other wireless electronic devices equipped capable of capturing GPS signals and displaying the direction from which the GPS signal is coming. The invention disclosed herein also permits a bow hunter to track the animal bearing the hollow cylindrical tube containing the battery and GPS tracking chip in low light conditions.

[0018] The invention disclosed herein is susceptible to many different and varied embodiments. Each of those other embodiments are included within the scope of the specification disclosed herein and as defined by the claims.

I claim:

1. A device attached to the tip of a bow hunter's arrow which enables the bow hunter to track a wounded animal through the brush comprising:

A hollow cylindrical tube composed of a first end connected to a second end by a body;

Said first end of said hollow cylindrical tube is beveled to a sharp point and said hollow cylindrical tube is detachably affixed to said tip of said arrow such that said hollow cylindrical tube is parallel to the body of said tip of said arrow and said first end is pointing in the direction of travel of said arrow;

A GPS signal emitting device and power source contained within said body of said hollow cylindrical tube and separated by a space;

An antenna attached to said GPS signal emitting device and extending through said second end and external to said hollow cylindrical tube.

Whereby, when an arrow to which the hollow cylindrical tube containing the GPS signal emitting device and power supply strikes a game animal, the hollow cylindrical device detaches from the arrow tip and the power supply comes into contact with the GPS signal emitting device providing power to the GPS signal emitting device so that the GPS signal emitting device transmits a GPS signal which can be detected by a GPS receiver and direct the bow hunter to the location of the GPS signal emitting device embedded within the animal.

2. The device attached to the tip of the bow hunter's arrow which enables the bow hunter to track a wounded animal through the brush as defined in claim 1 wherein said power source is a battery.

3. The device attached to the tip of the bow hunter's arrow which enables the bow hunter to track a wounded animal through the brush as defined in claim 1 wherein said GPS signal emitting device is a GPS tracking microchip.

4. A method for tracking an animal wounded by a bow hunter's arrow comprising steps of:

Inserting a GPS signal emitting device and power source inside the body of a hollow cylindrical tube beveled to a sharp point at the first end and having a second end opposite the first end and connected to the second end by said body;

Attaching an antenna to said GPS signal emitting device and extending said antenna out of said hollow cylindrical tube through the second end of said hollow cylindrical tube;

Attaching detachably the said hollow cylindrical tube to the tip of the arrow in such a manner so that said first end of said hollow cylindrical tube is pointing in the direction of the arrow's flight;

Aiming at an animal, said arrow to which has been attached said hollow cylindrical tube beveled to a sharp point at said first end and containing within said body of said hollow cylindrical tube a GPS signal emitting device and power source;

Shooting the animal with said arrow to which has been attached to the tip of said arrow said hollow cylindrical tube containing within said body of said hollow cylindrical tube a GPS emitting device and a power source configured in such a manner so that when said arrow strikes the animal, said power source comes into contact with said GPS signal emitting device supplying electricity to said GPS signal emitting device causing said GPS signal emitting device to emit a GPS signal;

Tracking the animal shot with said arrow to which has been attached to the tip of said arrow said hollow cylindrical tube containing within said body of said cylindrical tube said power source and said GPS signal emitting device which emits a GPS signal which is detected by a GPS receiver.

5. The method for tracking an animal wounded by a bow hunter's arrow as defined in claim 4 wherein said GPS signal emitting device is a GPS tracking microchip.

6. The method for tracking an animal wounded by a bow hunter's arrow as defined in claim 4 wherein said power source is a battery.

* * * * *

MBA Equipment Timeline

- 1984 - Defeated bill allowing crossbows during the archery season.
- 1989 - Defeated an either/ or bill during the legislative session. The bill would have required hunters to choose a rifle or bow exclusively during the season.
- 1993 - MBA survey showed majority of respondents in favor of the adoption of a state broadhead law.
- 1994 - Members voted their support in favor of a broadhead law. Western Bowhunting Conference reported that 9 of 13 western states have a broadhead law.
- 1995 - Defeated bill allowing crossbows during the archery season.
- 1996 - FWP Commission reported on newly adopted rules prohibiting artificial light and electronics on bows, bow sights, and arrows during bow season. Electronic aids used in the taking or locating of game and transceiver used to locate arrows are prohibited under this rule. The commission adopted a rule defining a broadhead. The Pope & Young Club upheld its long standing rule limiting let-off of compound bows to 65% and adopted a new ruling that defined bows for the purpose of entering a harvested animal in their records program.
- 1998 - Equipment discussion intensified due to the introduction of the Accu-Rest bow and dart it was capable of shooting. In the fall of 1998, the MBA submitted a tentative proposal defining a legal hunting arrow. In the winter of 1998, the Accu-rest bow issue prompted an earnest dialog on potential negative impacts to bowhunting from unbridled technological advances in archery equipment. Discussion focused on the Pope & Young Club's definition of a hunting bow.
- 1999 - The Commission adopted the MBA's arrow definition into the regulations. The MBA Tentatives Committee reported to the MBA membership on Commission Chairman Stan Meyers' concerns regarding bowhunter reliance on technology taking the place of skill and persistence:
- Stan Meyer: "If technology markedly improves archer's effectiveness, the season will have to be more restrictive."
- Tim Mulligan: "We seem to be constantly behind the technology curve and it is my desire to put rules in place to keep bowhunting primitive by keeping technology at bay."
- Charlie Decker: "Every time we set a season, we have a new gadget to contend with. Archers are getting better as the equipment gets better. Since you are having an impact, there may be changes coming down the pike."

Darlyne Dascher: A line on technology must be drawn if bowhunters want to maintain their liberal seasons."

Dave Simpson: "The net results is that today's archers, in addition to being more numerous, are more effective hunters than in years past when archery harvest was in fact inconsequential from a game management standpoint. It is therefore inevitable that there will be more restrictions imposed on archery hunting, whether in terms of season structure, equipment, or both."

Summer 1999: The Commission informs the MBA they have grown tired of dealing with new single equipment concerns each year in the tentatives process. The Commission indicates their awareness that technology advancements are not going to stop and this puts bowhunters at risk of losing bowhunting opportunity if the issue isn't addressed. The Board votes to draft a proposal that will define archery equipment. In the fall of 1999, a MBA member survey showed 92% of respondents supported a tentatives proposal for adoption of the P&Y equipment definition as Montana's bowhunting equipment standard. The Commission formed an Elk Archery Working Group to address the issue of archery equipment and its impact on the primitive nature of archery hunting.

- 2000 - The Archery Elk Working Group endorsed the MBA's equipment proposal, except they supported 80% let-off in favor of 65%. The MBA took an active role in the legislative session and supported legislation outlawing motion tracking devices, thermal imaging devices, and satellite devices used for hunting purposes. In the summer of 2000, the Commission passed the MBA's equipment recommendations.
- 2002 - Adoption of Permit To Modify Archery Equipment (PTMAE), providing accommodations for persons with disabilities to modify archery equipment.
- 2003 - Defeated bill allowing crossbows during the archery season.
- 2009 - Defeated bill allowing crossbows during the archery season.
- 2011 - Defeated bill allowing lighted nocks during the archery season.



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