An archery target stand having a pair of vertical supports adjustably attached to a horizontal platform, an elastic retaining means for securing block targets to the platform and a pair of base members adjustably attached to the distal ends of the vertical supports to provide axial adjustment for the target is easily transported to the range or into the field to offer a safe, secure and accurate target shooting experience.
ARCHERY TARGET STAND

FIELD OF THE DISCLOSURE

[0001] This disclosure relates generally to the sport of archery and specifically to a target stand for supporting and stabilizing targets, and in particular, block-style or cube-type archery targets. The disclosed target stand features an adjustable stabilizing strap, a high-friction, non-skid platform supported by a pair of T-style legs that are adjustable to allow the platform, and the suspended or supported target, to be moved in four directions.

[0002] Block-style targets can, of course, be positioned directly on the ground, but that does not replicate the height of a deer, the most common prey of bow hunters. The purpose of practicing with an inanimate target is, of course, to develop good shooting form and muscle memory. Thus, it is reasonable to assume that deer hunters should practice shooting at a target with the same height as deer vitals to develop accuracy and muscle memory. By fostering accuracy and muscle memory, the disclosed target stand instills and reinforces sound hunting practices and behavior.

[0003] It is axiomatic that archers use targets to practice and hone their skills. The block or cube target stops the arrows so that they may be retrieved and used repeatedly. Block-style targets are composed of compressed polymeric foam layers that absorb the kinetic energy of the arrow and prevent full penetration of arrow into the target.

[0004] Today’s bows produce high levels of kinetic energy—as much as 98 ft/lbs., which is enough to alter the orientation of the typical foam block target. As the target shifts, arrows already in the target have increased vulnerability to being struck by subsequently fired arrows. Arrows impacted by subsequently fired arrows can be easily damaged to the extent that their integrity and functionality and reusability are diminished.

[0005] By dramatically improving the stability of the target stand and its associated target, the arrow’s angle of entrance will be more consistent among all arrows shot from the same location and will thereby minimize the likelihood and implications of adverse arrow contact.

DESCRIPTION OF THE PRIOR ART

[0006] The methods and means for presenting a target to the practicing archer are legion and limitless. A particularly relevant target positioning system having three adjustable legs for raising and lowering a platform supporting a standard archery target cube is described in U.S. Pat. No. 8,091,895 issued to Allen on Jan. 10, 2012. The Allen positioning system, while similar to the instantly disclosed target stand, lacks the stability and resulting attributes of the instantly disclosed target stand.

SUMMARY OF THE DISCLOSURE

[0007] Notwithstanding the apparent similarity of the Allen target positioning system, there remains a need for an archery target stand having not only facile means for adjusting the height and orientation of the target, but also offering superior stability for the target to ensure proper and predictable positioning. Such an archery target stand is disclosed and described herein. Essentially, the disclosed archery stand comprises a pair of vertical supports having proximal and distal ends, with a platform horizontally and adjustably attached to the vertical supports. Preferably, the platform has a top surface area that is specially treated or equipped with a non-skid surface that lends stability to the target positioned and supported thereon. Adjustably attached to the proximal ends of the vertical supports are a pair of base members to provide free-standing support for the stand and its target, and attached to the stand is an elastic retaining means having sufficient elasticity to accommodate and secure block targets of various sizes to the top surface of the platform.

BRIEF DESCRIPTION OF THE DRAWING

[0008] FIG. 1 is a perspective view illustrating all of the essential elements of the disclosed target stand.

[0009] FIG. 2 is a front or back side view of the disclosed stand; and,

[0010] FIG. 3 is a right or left side view illustrating possible target positions that can be provided by the adjustments offered by the disclosed target stand.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0011] All elements of the disclosed target stand 10 are readily apparent from FIG. 1. Essentially, the stand comprises a pair of vertical supports 12, or legs, which serve to elevate and support a platform 16 on which a target 15, typically a block or cube-style target, is positioned. The platform 16 is planar and typically rectangular in shape and preferably features a non-skid surface 17 on which the target is situated and secured. The platform is adjustably attached to and supported by the vertical supports with easily removable fasteners 20, such as pull pins, positioned in holes in the platform (not shown) and alignable with a plurality of holes 21 in the vertical supports 12. The vertical supports 12 are typically parallel. They have proximal and distal ends and are positioned and adjustably attached to the platform on diametrically opposed sides of the platform. Typically, the platform is positioned generally midway between the proximal and distal ends of the vertical supports. The logical alignment of holes 21 in the vertical supports 12 with the holes in the platform and the insertion of removable fasteners 20 (pull pins) secure the platform between the vertical supports and allow for the adjustment of its height from the ground.

[0012] The vertical supports 12 are stabilized by a pair of base members 18 pivotally attached with pivot pins 19 at the proximal ends of the supports. This pivot attachment allows the vertical supports 12 to rotate axially relative to the base members 18. To better define, coordinate and secure this axial movement, the base members are fitted with a pair of adjustment dials 25. The dials are secured by conventional means to the base members 18 with brackets 26 and offer a plurality of holes 29, which can be aligned with a hole in each of the vertical supports to fix the desired rotation and axial positioning of the attached platform. The desired orientation is secured by the insertion of a removable pin 27 through the support 12 and appropriate hole 29 in dial 25.

[0013] FIG. 3 provides an illustration of the measured axial movement of the vertical supports, the platform and of course, the target, around the pivot pin 19 in base member 18 by the insertion of the removable pin 27 through the hole in the vertical support and an appropriate hole 29 in the adjustment dial 25. This axial adjustment is, of course, coordinated with the adjustment of the vertical support, base member and adjustment dial on the opposing side of the platform.
FIG. 2 is a front or rear view of the disclosed target stand 10 with a cube target 15 depicted in phantom. This view illustrates the elastic retaining means 22, which secures the target 15 to the platform 16 of the target stand 10. The preferred elastic retaining means will have sufficient elasticity to accommodate targets of various sizes. Preferably the elastic retaining means is secured to the target stand by attaching the ends of the retaining means to fasteners 23 semi-permanently attached to the stand 10. Currently, the fasteners consist of a pair of eye screws attached to the surface of the platform, although other arrangements are certainly feasible. It is the combination of the elastic retaining means 22 and the non-skid surface of the platform that provides the cube with the target stability that is desired and valued by the practicing archer.

Additional stability for the structural elements of the target stand is provided by the addition of a bridge element 34, which spans the distal ends of vertical supports 12. The bridge element 34 simply provides additional rigidity to the stand 10, which then provides additional stability to the target, all of which intres to the benefit of the archer. Typically, the bridge element is secured to the distal ends of the vertical supports by the use of brackets 39, which can be attached by conventional fasteners.

Optionally, the bridge element can be fitted with hardware 33, such as eye screws, that offer a means for suspending or hanging a bag target. To enhance the utility of the disclosed target stand 10, it is important that the stand accommodate as many different types of archery targets as possible. While primarily concerned with ensuring the stability of the polymeric block or cube targets, it is also important that the disclosed stand provide the means to hang or suspend more traditional targets. Accordingly then, it is intended that hardware 23 and 33 be optionally deployed to suspend and secure bag targets, which can be hung from attachment hardware 33 and stabilized by anchoring to hardware 23.

The disclosed target stand is portable. It can be taken on hunting trips, or simply moved about the target range with facility and ease. The removal of the pull pins allows the target stand to collapse and fold into an easily toted and stored form.

The disclosed target stand can be fabricated from a variety of sturdy, lightweight materials including wood, plastic, metal and fiberglass. It is desirable that the target stand be resistant to the elements and sufficiently durable to withstand less than pampered treatment.

The non-skid surface 17 of the platform 16 can be effected by a variety of means. There is no shortage of commercial and industrial coatings that can be applied by painting or spraying on the surface. Any of several anti-slip traction products currently used to increase the co-efficient of friction between footwear and treaded surfaces can be used to increase the non-skid properties of the platform surface. These anti-slip traction products are typically used on tubs, showers, stairs, ramps and deck surfaces and consist of various epoxy, acrylic and urethane polymers and can be used just as effectively on the platform surface of the disclosed target stand to enhance the stability of the target on the platform of the target stand. The most preferred non-skid surface for the platform is one that imparts a high degree of "grip" between the surface of the platform and the target without damaging the target.

While the foregoing is a detailed and complete description of the preferred embodiments of the disclosed archery target stand and its use for supporting and suspending targets, it should be apparent that numerous variations and modifications can be made to the device and employed to implement the overall purpose of the device without deviating or departing from the spirit of the invention, which is fairly defined by the appended claims.

1. An archery target stand which comprises:
   a pair of vertical supports having proximal and distal ends;
   a platform having a generally horizontal orientation adjustably and perpendicularly attached to said vertical supports;
   a pair of base members adjustably attached to said proximal ends of said vertical supports; and,
   an elastic retaining means attached to said target stand having sufficient elasticity to accommodate and secure targets of various dimensions.

2. The archery target stand according to claim 1 wherein said vertical supports are parallel.
3. The archery target stand according to claim 1 wherein said adjustable attachment of said platform to said vertical supports is a height adjustment.
4. The archery target stand according to claim 1 wherein said base members are attached to provide axial rotation to said vertical supports.
5. The archery stand according to claim 1 wherein said platform has a non-skid top surface.
6. The archery target stand according to claim 1 wherein the elastic retaining means is a linear band secured to said platform at the ends of said band.
7. The archery target stand according to claim 1 further including a bridge element secured to the distal ends of said vertical supports.
8. The archery target stand according to claim 7 further including attachment means for suspending a target from said bridge element.