

United States Patent

[11] 3,584,820

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[54] ARCHERY BOW STAND
16 Claims, 12 Drawing Figs.

[52] U.S. Cl..... 248/122,
42/94, 124/24, 248/156

[51] Int. Cl. A45f 3/44,
F41b 5/00, F41c 29/00

[50] **Field of Search**..... 211/13, 60,
64; 248/121, 122, 125, 156; 42/94, 1; 89/37 B-1;
124/23, 24

[56]

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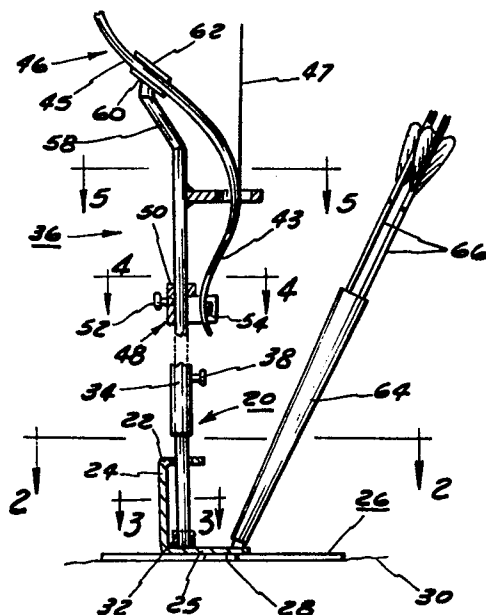
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2,593,789	4/1952	Pearson	211/13
3,286,961	11/1966	Mandolare	248/122
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ABSTRACT: A support or rest for an archery bow or a rifle, which comprises a universal stand or base having interchangeable standards to support a bow or a rifle in near ready position; the stand for a bow is equipped to mount a quiver so as to have arrows at disposal for the use of the device by an archer.



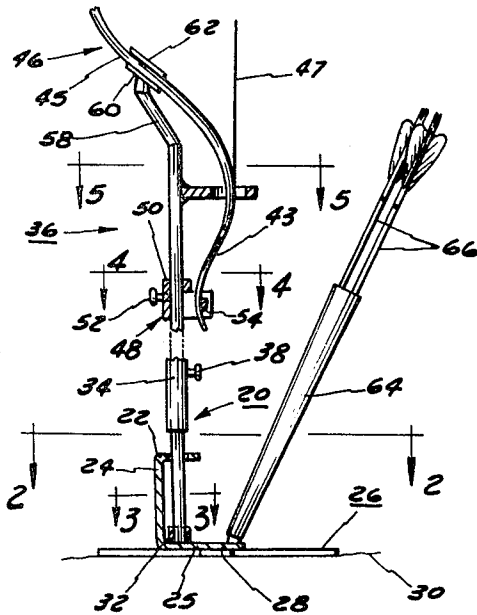


FIG-1

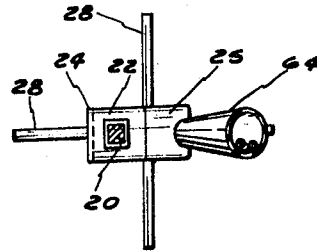


FIG-2

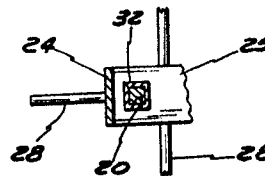


FIG-3

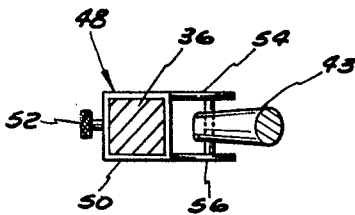


FIG-4

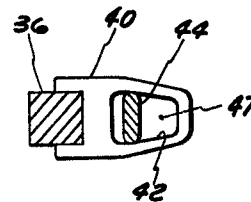


FIG-5

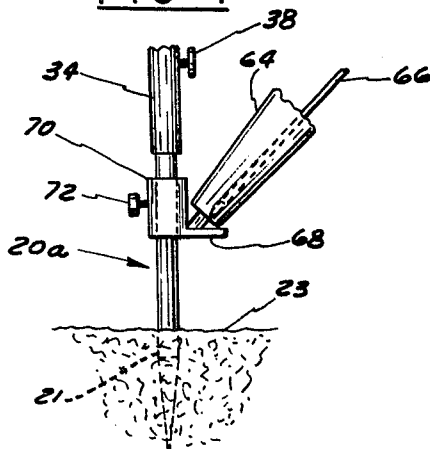


FIG-6

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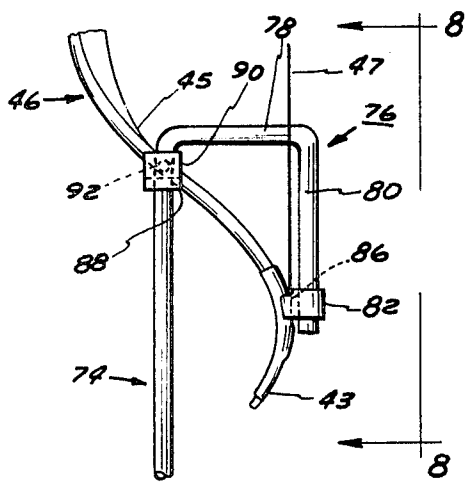


FIG-7

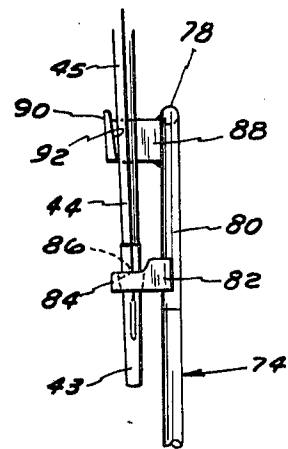


FIG-8

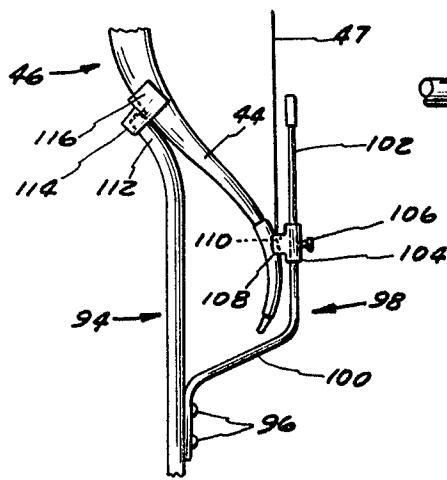


FIG-9

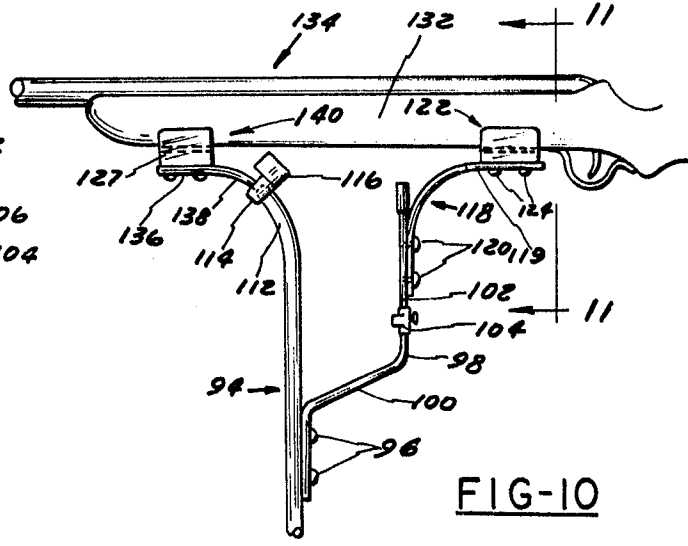


FIG-10

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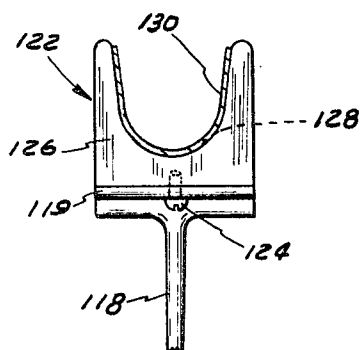


FIG-11

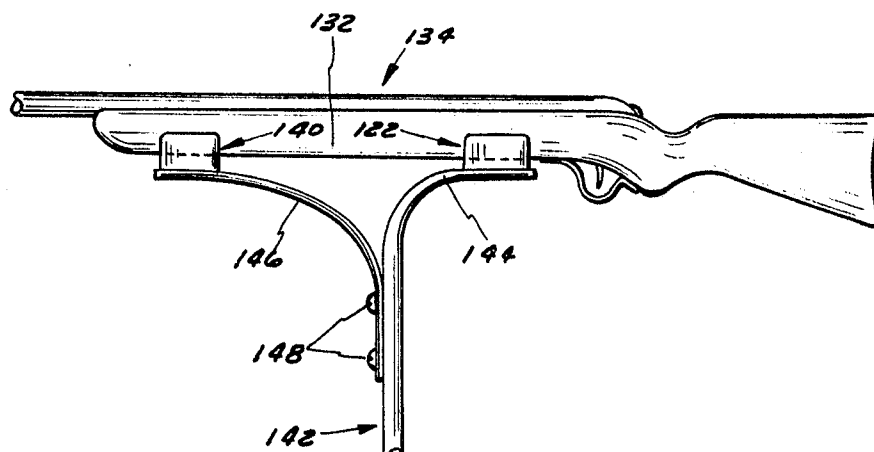


FIG-12

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ARCHERY BOW STAND

BACKGROUND OF THE INVENTION

1. Field Of The Invention.

The present invention relates to portable supports or rests for a weapon, such as an archery bow or a rifle, to reduce the effort of a hunter or target shooter to hold the weapon at a steady position ready for the draw. More in particular, the present invention relates to a portable universal ground support or standard adapted to interchangeably support an archery bow or a gun or rifle.

2. Description Of The Prior Art

Portable supports for bows and arrows, or rests for guns, are known in the art, which are constructed such as to be easily carried around by the hunter or target shooter to be placed on the ground at the proper location or driven into the ground if the support is provided with a spike instead of a base. These known stands or rests are also usually collapsible to facilitate their transportation from one place to another.

The known supports for bows and arrows generally comprise standard or staff and retaining means for the arrows for keeping them in a ready position and a means, such as a hook, cradle or the like, to place the bow upon when not in use, so as to be in a handy position for the hunter or target shooter to be readily available and brought into position upon commencing of the shooting without the user having to stoop down to pick up the weapon from the ground or some other inconvenient location. Such known supports are for example, disclosed in U.S. Pat. No. 1,851,779 to H. J. Slater; U.S. Pat. No. 2,275,870 to H. D. Sheldon; and U.S. Pat. No. 2,593,789 to B. Pearson.

However, these known devices do not provide means to support the archery bow in a ready or near-ready position while waiting to shoot. Current bow and arrow equipment is considerably heavy and may well weigh several pounds, which makes it difficult for most archers to hold the bow in a ready aimed position for any length of time. In game hunting if the bow is laid down or hung up awaiting a target, the game may be gone before the bow can be brought to the proper position.

SUMMARY OF THE INVENTION

The present novel bow and arrow stand or support provides a completely self-supporting, collapsible, portable structure with interchangeable retaining means to securely support and retain the lower end of a bow so as to maintain the bow in a straight vertical position and ready for shooting. At any time the archer is ready to use the bow, the bow is at his immediate disposal, eliminating the tiring effort of picking up the bow and holding it in position for a length of time.

Several interchangeable embodiments of bow-retaining means are herein disclosed to accommodate any type of bow.

The present novel device comprises a standard or stand adapted to be driven into the ground or clamped to a base. The upper end of the stand is provided with adjustable interchangeable bow end retaining means to securely accommodate various shapes of bows.

A specific feature of the present invention is the provision of interchanging the bow end retaining means and staff with support means to provide a rifle or gun rest.

Further novel features and distinct advantages will become evident or specifically be pointed out in the following detailed description, having reference to the accompanying drawings illustrating several preferred embodiments of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a side view of the novel bow and arrow stand having parts shown in cross section for clarity;

FIG. 2 is a transverse section through the lower part of the stand shown in FIG. 1 along line 2-2 thereof;

FIG. 3 is a further cross section through the supporting base for the stand shown in FIG. 1 along line 3-3 thereof;

FIG. 4 is another cross section through the bow-supporting staff of the stand illustrated in FIG. 1 along line 4-4 thereof;

FIG. 5 is still another cross section through the upper portion of the bow supporting staff of the stand shown in FIG. 1 along line 5-5;

FIG. 6 shows a modification of the ground support which may be used for the bow supporting staff, illustrated in FIG. 1 and FIGS. 7-12;

FIG. 7 shows a modified bow supporting staff which may be used with either ground support of FIG. 1 or FIG. 6;

FIG. 8 is a front view of the staff illustrated in FIG. 7;

FIG. 9 illustrates another modification of a bow-supporting staff for use with either ground support of FIG. 1 or FIG. 6;

FIG. 10 illustrates an attachment for a bow support staff shown in FIG. 9 to provide a gun rest;

FIG. 11 is an enlarged front view of one of the gun rest members used in the modification shown in FIG. 10; and

FIG. 12 shows still a further modification of a support staff for use as a gun rest and which may be used with either ground support of FIG. 1 or FIG. 6.

DESCRIPTION OF THE PREFERRED EMBODIMENT

As illustrated in FIG. 1, the present novel bow and arrow support comprises a base standard 20, which preferably is of square cross section as seen in FIGS. 2 and 3, and which, in FIG. 1, is inserted through the upper flange 22 of a bracket 24, which bottom flange 25 is welded or otherwise secured to a base 26. The base 26, as seen in FIG. 2, has oppositely extending legs 28 for firm support on a ground surface 30. However, it may just comprise a flat plate or the like having sufficient surface support so as not to topple over.

The lower end of the base standard 26 is preferably supported on the bottom flange 25 of the bracket 24 within a complementary aligned retainer 32 attached to the bottom flange 25 to keep the base standard in secure vertical alignment. The square section of the base standard prevents its inadvertent rotation relative to the bracket or base.

The upper end of the base standard 20 is formed into a hollow tubular portion 34 adapted to telescopically receive a staff 36 for adjustable securement thereto by means of a set screw 38 or the like to permit the staff to be raised or lowered relative to the base 26.

As illustrated in FIG. 6, the lower end of the base standard 20a may be formed into a spike 21 adapted to be driven into the ground 23 and thus, in this instance, omitting the base and supporting bracket 24 and 26, which will be preferred in most outdoor uses of the present device, since there the ground surface is usually uneven and would prevent a safe support of the base 26, which is preferably adapted for indoor use or where an exceptionally even surface can be provided.

With particular reference to FIGS. 1-5, the staff 36 comprises a longitudinal rod member of preferably square cross section, as seen in FIGS. 4 and 5, which is adapted for insertion into the tubular portion 34 of the base standard 20 for securement thereto at the desired height position by means of a set screw 38. The square cross section prevents the staff 36 from rotation relative to the base standard 20. Substantially near the upper end of the staff 36, a yoke member 40 is provided which may be welded or otherwise secured to the staff and which extends horizontally away therefrom. The yoke member 40 has at least one opening 42 for the extension and retainment of the arched end 44 of a bow 46 therethrough. As seen in FIG. 5, the opening 42 may be tapered, as shown, or several openings of different diameters may be provided to accommodate and securely retain the bows having different arcs. Underneath the yoke member, a retainer 48 is adjustably mounted on the staff by means of a collar 50, slidably disposed around the staff, which is adapted to be clamped in required position relative to the yoke 40 by means of a set screw 52. The retainer 48 is provided with oppositely spaced

flanges 54 and 56 (FIG. 4) extending in the general direction as the yoke 40. The flanges 54 and 56 of the retainer 48 are adapted to receive the tip 43 of the lower end 44 of the bow 46 for retainment thereby and the retainer 48 will be accordingly adjusted along the staff 36 relative to the yoke 40 in compliance with the particular shape or size of the bow being used.

The upper end of the staff 36 is bent out of the general vertical direction of the staff to provide an angularly offset extension 58 on the end of which is mounted a bracket 60, which is shaped to provide oppositely spaced flanges 62 extending upwardly to provide a rest and retaining means for the upper portion 45 of the end of the bow 46. Thus, as seen, the arched end 44 of the bow 46 is supported on the staff 36 at three-spaced points to provide maximum support and stability for the bow 46, which will thus be retained in a straight vertical position and ready for shooting. The bow 46 is placed in the respective retaining means on the staff 36 by threading the tip 43 through the opening 42 in the yoke 40 and then sliding the bow downward to enable the tip 43 to engage between the flanges 54 and 56 of the adjusted lower retainer 48 and thereafter placing the upper portion 45 of the bow end between the flanges 62 of the upper rest bracket 60.

For convenience, and as illustrated in FIG. 1, a quiver 64 may be attached as by welding or the like to the base 26 or to the bottom flange 25 of the bracket 24. The quiver 64 is adapted to store a plurality of arrows 66 to be conveniently available to the archer for use with the bow 46. In the spike-type embodiment of the base standard 20a, as shown in FIG. 6, the quiver 64 may be attached to a support flange 68 extending from an adjustable collar 70 disposed around the lower portion of the base standard 20a for height adjustment therealong relative to the ground 30. Depending on how far the spike 21 is driven into the ground 23, the quiver support 70 may be accordingly adjusted to the desired height and is locked in that position on the standard 20a by the means of a set screw 72.

With reference to FIGS. 7 and 8, the alternate bow support illustrated therein comprises a staff 74 adapted for insertion and support of the base standard 20 of FIG. 1 or 20a of FIG. 6. The upper portion of the staff 74 is twice bent reversely at a right angle to provide a substantially U-shaped staff portion 76 composed of a horizontally rearwardly extending portion 78 and a vertically downwardly extending portion 80 in parallel spaced relationship with the main staff portion. Attached to the lower end of the vertical portion 80 is a bracket 82 provided with a laterally extending arm 84, which has a tapered notch 86 adapted to receive the arched end 44 of the bow 46 to be retained therein. The upper end of the straight main portion of the staff 74 immediately below the horizontal portion 78 is provided with a bracket 88 welded or otherwise secured thereto, which similarly is provided with a support arm 90 extending laterally therefrom to be disposed in the same vertical place with the lower support arm 84. The support arm 90 is likewise provided with a tapered notch 92 disposed oppositely to the notch 86 to provide a secure rest for the upper portion 45 of the end of the bow 46. In this embodiment, sufficient stable support for the bow 46 is provided at two spaced points along the arched end 44 of the bow by sliding the end of the bow downwardly within the tapered notches 86 and 92 until they are wedged therein to securely retain the bow 46 on the staff 74 along one side thereof.

The further modification shown in FIG. 9 provides a staff 94 which has attached thereto near its upper end by means of welding or screws 96 an arm 98 formed of a transition portion 100 extending rearwardly away from the staff which is connected to an upright portion 102 disposed in spaced parallel relationship to the staff 94. The upright portion 102 is provided with a slidable collar 104, which may be adjustable therealong and which may be secured thereto in adjusted position by means of a setscrew 106. The collar 104 is provided with a support arm 108 depending therefrom forwardly, which has a tapered notch 110 to receive and retain the arched end 44 of the bow 46. The upper end of the staff 94 is bent forwardly

to provide an angular offset portion 112 to which end is secured a bracket 114 having a seat portion 16 extending upwardly therefrom adapted to securely retain and support the upper portion 44 of the end of the bow 46. In this embodiment, the end of the bow 46 is likewise supported at two-spaced points, which provide a sufficiently secure and stable support for the bow 46. The staff 94, of course, is adapted for insertion and support on either base standard 20 of the embodiment shown in FIG. 1 or base standard 20a of the embodiment shown in FIG. 6.

With reference to FIGS. 10 and 11, this modification illustrates the use of the present novel stand as a gun rest utilizing in this embodiment the staff structure 94, hereinbefore described and illustrated in FIG. 9. For use of the staff 94 as a gun rest, the branched extension arm 98 receives an angular bracket 118 which may be secured thereto by means of screws 120 for ready attachment and removal when not needed. Attached to the rearwardly extending substantially horizontal portion 119 of the bracket 118 is a gun rest 122 which may be secured thereto by screws 124 or the like. As illustrated in FIG. 11, the gun rest 122 comprises a cradle 126 having a concave semicircular depression 128, which surface is preferably padded with a sheet 130 of padding material, such as sponge rubber or the like. The cradle 126 is of a length so as to provide sufficient surface support for the stock 132 of the gun 134 when placed in the depression 128 of the cradle 126. The padding 130 prevents damage to the gun stock. The angular upper end portion 122 of the staff 94 likewise receives a bracket 136 having a strut portion 138 which is adapted to be inserted in the hollow end of the shaft portion 112 to be retained therein. Mounted on the bracket 136 is another cradle 127, which comprises a forward gun rest 140 which is of identical construction as the gun rest 122 and is adapted to support the front end of the gun stock 132. Thus, the gun 134 is securely supported on the two-spaced gun rests 122 and 140 to hold the gun steady for target practice or when hunting to assure a maximum degree of accuracy.

FIG. 12 illustrates another embodiment of the gun rest including a modified staff member 142 which upper end is bent over rearwardly to form a branch 144 adapted to support a rear gun rest 122. A separate arm or branch 146 is attached to the staff 142 near its upper end by means of screws 148 or the like, and extends forwardly in opposite direction to the rear branch 144. The forward gun rest 140 is mounted at the end of the forward branch 146 to thus enable the gun 134 to be steadily supported at two-spaced points for maximum steadiness and balance.

The gun rests 122 and 140 in the FIG. 12 embodiment are alike in every respect to those illustrated in FIGS. 10 and 11 and need not again be described.

It will be understood that the staff members 94 and 142 of the gun rest modifications illustrated in FIGS. 10-12 are adapted to be mounted on either base standard 20 shown in FIG. 1 or 20a shown in FIG. 6 for ground support of the gun rests.

Thus, by the provision of the present invention, a universal bow stand or gun rest has been provided having means to securely and accurately support a bow or a gun and maintain accuracy during shooting of the bow or the gun.

The present invention may be embodied in other certain forms without departing from the spirit and the essential characteristics thereof, therefore, the present embodiments are considered in all respects as illustrative only and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description.

I claim:

1. A stand for an archery bow comprising:

a base adapted for support of said stand upon the ground,

a staff secured to said base,

first means on said staff for support of a lower portion of said archery bow at a point near its end, and

second means on said staff spaced from said first means for support of a further portion of said bow spaced from said

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point near its end to thus retain said archery bow in an upright position.

2. The stand as defined in claim 1, in which said first means comprises a retainer adjustably secured to said staff and said second means comprises a retainer disposed on said staff upwardly from said first means.

3. The stand as defined in claim 1, in which the upper end of said staff is provided with a branched off arm spaced from said staff, said first means being disposed on said arm, and said second means being disposed at the upper end of said staff spaced upwardly from said first means.

4. The stand as defined in claim 1, in which said base comprises a foot, an upright bracket attached to said foot, said bracket adapted to receive and support a standard, and said staff being secured to said standard.

5. The stand as defined in claim 1, in which said base comprises a spiked standard adapted to be driven into the ground, and said staff being secured to said spiked standard.

6. The standard as defined in claim 4, in which a quiver is mounted on said bracket.

7. The stand as defined in claim 5, in which a quiver is mounted on said spiked standard.

8. A stand for an archery bow comprising:

a base adapted for support of said stand upon the ground; a generally vertical staff extending from said base, an arm secured to said staff and extending alongside a portion of said staff;

a first means attached to said arm and adapted to support said archery bow at a point near its end;

a second means attached to said staff and adapted to support said archery bow at a second point spaced from said first point, said archery bow being supported in a generally upright position.

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9. The stand as defined in claim 8, in which said base comprises a spiked standard adapted to be driven into the ground.

10. A stand for an archery bow comprising:

a base adapted for support of said stand above the ground, a staff extending from said base;

first means on said staff for support of a lower portion of said archery bow at a point near its end, and

second means on said staff spaced from said first means for support of a further portion of said bow spaced from said point near its end to thus retain said archery bow in an upright position.

11. The stand as defined in claim 10, in which said first means comprises a retainer secured to said staff and said second means comprises a retainer disposed on said staff upwardly from said first means.

12. The stand as defined in claim 10, in which the upper end of said staff is provided with an arm spaced from said staff, said first means being disposed on said arm, and said second means being disposed at the upper end of said staff spaced upwardly from said first means.

13. The stand as defined in claim 10, in which said base comprises a foot, an upright bracket attached to said foot, said bracket adapted to receive and support a standard, and said staff being secured to said standard.

14. The stand as defined in claim 10, in which said base comprises a spiked standard adapted to be driven into the ground.

15. The standard as defined in claim 13 in which a quiver is mounted on said bracket.

16. The stand as defined in claim 14, in which a quiver is mounted on said spiked standard.

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