United States Patent [19]

Anderson

[11] **3,790,171**

[45] **Feb. 5, 1974**

[54] **TETHER BALL APPARATUS INCLUDING ROLLER BEARING AND VERTICAL BARRIER**

[76] Inventor: **Leonard R. Anderson,** 77 1st Ave., Midvale, Utah 84047

[22] Filed: **Nov. 22, 1971**

[21] Appl. No.: **201,027**

[52] **U.S. Cl.** ..... **273/95 A**

[51] **Int. Cl.** **A63b 71/02**

[58] **Field of Search**.... 273/95 A, 26 R, 26 A, 29 R, 273/98, 30; 124/8

[56] **References Cited**

UNITED STATES PATENTS

3,477,717	11/1969	Clark	273/30
3,216,723	11/1965	Galezniak	273/95 A
3,288,413	11/1966	Gregory	273/95 A
3,408,070	10/1968	Gonzoles	273/26 E
2,980,095	4/1961	Hoag	124/8

Primary Examiner—Richard C. Pinkham
Assistant Examiner—Marvin Siskind
Attorney, Agent, or Firm—B. Deon Criddle

[57] **ABSTRACT**

A versatile game apparatus which lends itself to the playing of a number of different skill games between two competing players or for individual game practice. The apparatus consists of an upright pole having a bearing on its top to which a line is attached. A game object, such as a tennis ball, baseball, shuttlecock, football, or the like, is tethered to the other end of the line. The bearing mounting allows the line to rotate freely about the pole such that players opposite to, or alongside, one another can strike the tethered game object back and forth. A simple base mounting arrangement is provided to connect the pole axially to an automobile wheel and tire so as to provide a support for the pole. A collapsible net releasably coupled to the upright pole is provided to form a barrier over which a game of skill associated with the apparatus of the invention is played. The upright pole also has a fixed hole proximate to its top, for attachment of a standard tether ball line thereto.

4 Claims, 4 Drawing Figures

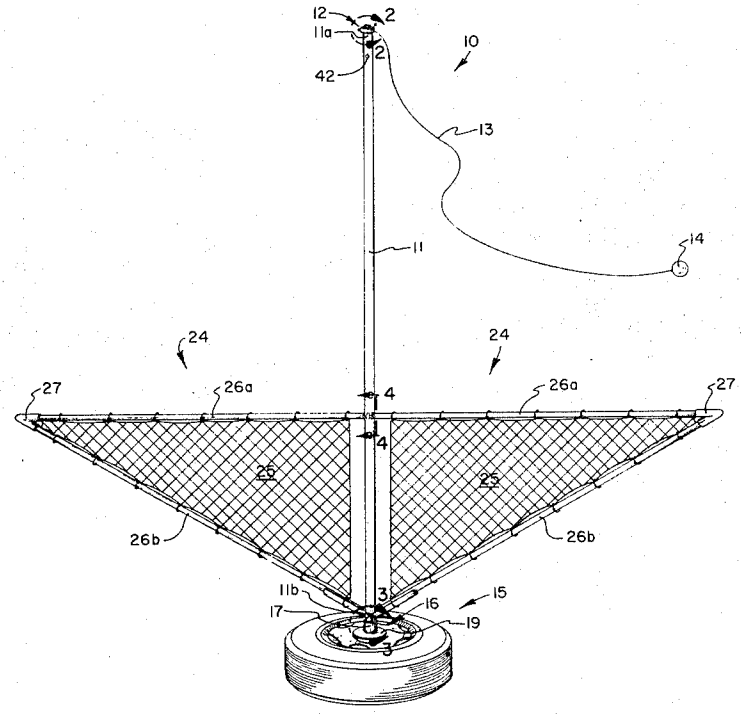


FIG 2

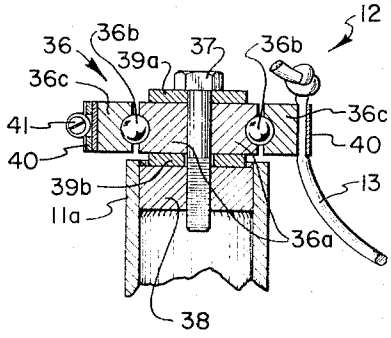


FIG 1

FIG 3

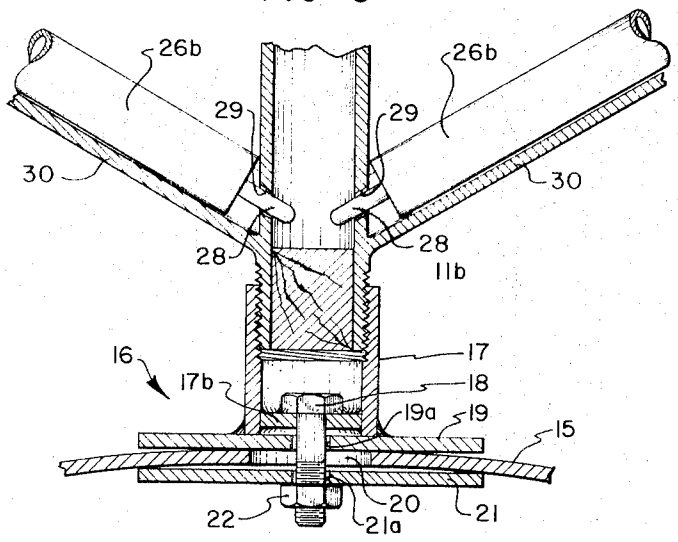
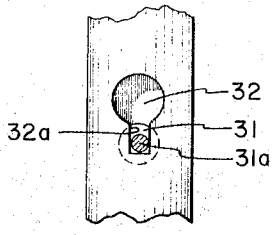


FIG 4



INVENTOR.
LEONARD R. ANDERSON
BY P. Dean Criddle
ATTORNEY

TETHER BALL APPARATUS INCLUDING ROLLER BEARING AND VERTICAL BARRIER

BRIEF DESCRIPTION OF THE INVENTION

1. Field of the Invention

This invention relates to skill game apparatus involving upright poles to which a game object is attached by a line.

2. Prior Art

A number of pole arrangements mounting one or a number of lines connected to balls or like items are commonly known. A tether ball and pole is an example of one such game apparatus. It is commonly known that such a tether ball pole may be coupled with an automobile wheel and tire as a base to provide a sturdy vertical support but usually, such connections are permanent.

The present invention, though it is usable also as a tether ball pole, mounts a bearing arrangement on its top to allow a line joined thereto to swing freely about the pole. A number of games other than tether ball can therefor be played using the invention.

SUMMARY OF THE INVENTION

It is a principal object of the present invention to provide an upstanding pole arrangement that allows a game object tethered thereto an unrestricted path of rotation about the pole.

Another object is to provide a collapsible net arrangement that is easily coupled to the upstanding pole to provide a barrier over which games associated with the invention can be played.

Still another object is to provide a simple coupling for releasably joining the base of the upstanding pole to a vehicle spare tire and wheel, to provide a vertical support for the pole.

Principal features of the present invention include an upright pole on the top of which is mounted a bearing arrangement that allows a connected line full circle rotation. A tennis ball, baseball, shuttlecock or like item, is attached to the opposite end of such a line. The propelling of such a game object around the pole lends itself to individual game practice or contests between two players, with the game object being to propel such a game object around the pole past the opposing player.

A coupling arrangement is provided whereby the base of the upstanding pole can be releasably coupled to a spare tire and wheel to provide vertical support thereto.

A simple, low cost collapsible net arrangement is provided that attaches to the upstanding pole, thereby forming a barrier over which an individual can practice games associated with the invention or over which a game of skill between opposing players can be played.

A hole is provided near the top of the pole to allow a standard tether ball line to be attached thereto, allowing the present invention to be used also as a conventional tether ball pole, with the line on the ball wrapping around the pole during play.

Additional objects and features of the invention will become apparent from the following detailed description and drawings disclosing what is presently contemplated as being the best mode of the invention. THE DRAWINGS

FIG. 1 is a perspective view of the invention showing a line that has a ball fixed to its end attached at its other end to a bearing arrangement of the invention;

FIG. 2, a sectional view taken within the line 2—2 of FIG. 1 showing the bearing arrangement to which the line is attached;

FIG. 3, a sectional view taken within the line 3—3 of FIG. 1 showing a coupling arrangement for joining the pole base to a spare wheel, and a lower coupling of a collapsible net to the upstanding pole; and

FIG. 4, a vertical section view taken along the line 4—4 of FIG. 1 and showing the upper attachment of the collapsible net with the upstanding pole.

DETAILED DESCRIPTION

Referring now to the drawings:

In the illustrated preferred embodiment of the invention, the game apparatus shown generally at **10** consists of an upstanding pole **11**, mounting a bearing **12** on its top **11***a*. A line **13** is connected at its one end to bearing **12**, and has a ball **14** fixed to its other end. Ball **14** typically is a tennis ball, a baseball, or a larger ball, such as a basketball or a volleyball, but other game objects such as a shuttlecock could be attached thereto. The bearing **12** allows line **13** and an object connected thereto to travel freely around pole **11**. A lone player can propel the tethered game object away from him, on line **13**, thereby rotating the game object around pole **11** and returning the game object to him to be caught or to be again propelled in the same or the opposite direction. Similarly, two players standing side by side or opposite to one another can propel a game object back and forth around pole **11**.

Pole **11** is maintained in an upright attitude by connecting it to a base member as best seen in FIGS. **1** and **3**. As illustrated, pole **11** is connected at its base **11***b* to a tire and wheel unit **15**. Tether ball type poles and like pole arrangements have long been vertically mounted in tire arrangements. The present invention is unlike former mountings, however, in that a releasable mounting to a useful spare tire and wheel is taught. The mounting **16** shown in FIG. **3**, consists of a sleeve **17** having internal threads **17***a* formed within its topmost end. The bottom end of sleeve **17** is fixed to a plate **19** which has a hole **19***a* formed through its center and is arranged to have a larger width than the diameter of the central hub hole **20** formed in rim **15***a* of wheel unit **15**. A bolt **18** projects from a plate **19** within sleeve **17** through the holes **19***a*, **20** and a hole **21***a* of another plate **21** that is larger than the hole **20** and has a nut **22** threaded thereon.

Pole **11** has threads **11***c* formed in its base which are turned into internal thread **17***a* of sleeve **17** to hold the pole **11** vertically erect. A plug **11***d*, formed of wood or like material, provides an end play in pole **11**, and facilitates the formation of threads **11***c* therein, even though the pole is made from thin wall tubing, by providing a rigid backing to the pole surface against which the threads are cut. The utilization of the plug **11***d* makes it possible to cut threads in a thinner gauge tube than could be used absent plug **11***d*.

Net barrier sections **24**, shown in FIG. **1**, are attached to upright pole **11** to provide a boundary over which a game associated with the apparatus of the invention is played. Each net barrier section **24** can be independently attached to the pole, or both can be connected thereto. Net barrier sections **24** each consists of a net

25, the perimeters of which are threaded through arms 26*a* and 26*b*, which are hinge connected together at 27. When arms 26*a* and 26*b* are spread apart around hinge 27 net 25 is made taut. The hinges 27 conveniently are formed of V-shaped plastic tubing of a size to snugly receive the ends of arms 26*a* and 26*b*.

The mounting arrangement whereby the ends of arms 26*b* are maintained to the bottom portion of pole 11 is shown in FIG. 3. Each arm 26*b* has a finger 28 projecting from the end thereof into a hole 29 in pole 11. Cradles 30 are mounted at their ends to project on an upward angle from the sides of pole 11 to provide rest supports for portions of the arms 26*b*.

As seen best in FIG. 4, each arm 26*a* is releasably maintained to pole 11 by inserting a stop 31, which is fixed to the end of a finger 31*a* projecting from the end of each arm 26*a*, opposite to hinge 27, into keyhole 32 formed through the side of pole 11. Each keyhole 32 has a short slot 32*a* extending downward from an enlarged hole, with the slot being too small for the stop 31 to move through. Therefor, by inserting stops 31 through the enlarged hole portions 32 and pushing the fingers 31*a* down into the slots 32*a*, the arms 26*a* are securely held to the pole 11.

As shown best in FIG. 2, the bearing arrangement 12 includes an inner raceway 36*a*, a number of balls 36*b*, and an outer raceway 36*c*. A bolt 37, extends through inner raceway 36*a* and is threaded into a plug 38 that is maintained in the top end 11*a* of pole 11. Washers 39*a* and 39*b* are shown positioned between the head of bolt 37 and the top of raceway 36*a*, and the bottom of the inner raceway and the plug 38, respectively. A pipe strap 40, that is arranged to be tightened against the outer raceway 36*c* by turning of screw 41, secures the end of line 13 to the outer raceway 36*c*.

A hole 42 is provided through pole 11, near its top 11*a*, to allow a tether ball line to be attached thereto, allowing the game apparatus 10 to also be used as a tether ball pole.

Although a preferred form of my invention has been herein disclosed, it is to be understood that the present disclosure is made by way of example and that variations are possible without departing from the scope of the hereinafter claimed subject matter which subject matter I regard as my invention.

I claim:

1. A game apparatus comprising
a pole;
a bearing means fixed to a top end of said pole;
a line;
a game object fixed to one end of said line, the other end of the line being secured to the bearing means such that the line, with the game object attached thereto, can swing freely around the pole;
support means on the other end of the pole to hold said pole in an upright position; and
a collapsible barrier means connected to the pole and extending therefrom transversely to the axis of the pole, said collapsible barrier being formed by stretching a netting material between two arms which are hinged together at their ends and that have their opposite ends releasably connected, by appropriate means, to spaced apart locations on the pole, such that said netting material is stretched between said hinged arms.

2. A game apparatus as recited in claim 1, wherein the means whereby the ends of the collapsible barrier are releasably connected to the pole consists of
a pin projecting outwardly from the end of the bottom most arm, that is fitted into an appropriate hole formed in said pole; and
a stop means, formed in the end of the other arm, for releasably connecting said arm into an appropriately formed hole in said pole.

3. A game apparatus comprising
a pole;
a roller means fixed to a top end of said pole;
a line;
a game object fixed to one end of said line, the other end of the line being secured to the roller means such that the line, with the game object attached thereto, can swing freely around the pole;
support means on the other end of the pole to hold said pole in an upright position; and
a barrier means connected to the pole and extending therefrom transversely to the axis of the pole, said barrier means forming an upstanding plane extending to above the level of the game object when said game object is suspended from the roller means.

4. A game apparatus as in claim 3, wherein the barrier means is collapsible.

* * * * *