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(54) **OBJECT RETRIEVING DEVICE**

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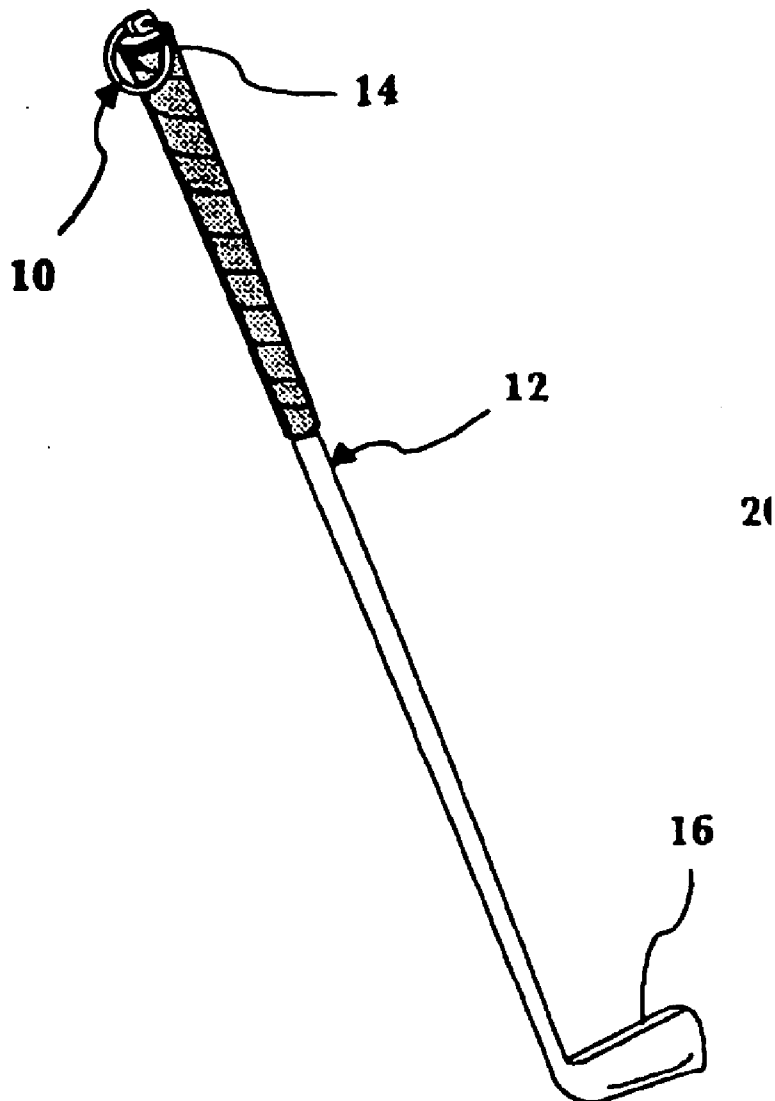
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(57) **ABSTRACT**

An object retrieving device for use with an elongated member includes a holder secured to the elongated member. A first recess is provided in a first side of the holder, and a second recess is provided in a second side of the holder. The first recess is longitudinally offset from the second recess. A hoop has a first end secured in the first recess of the holder, and a second end secured in the second recess of the holder. The hoop is held in a state of constant spring tension by the holder.

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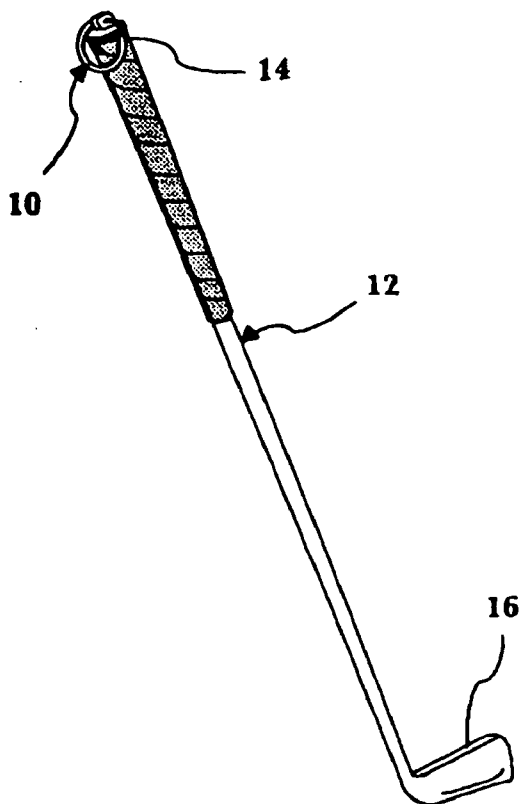


FIG. 1

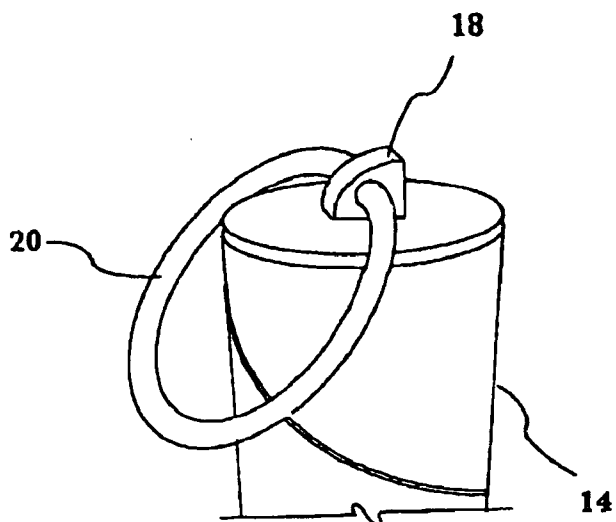


FIG. 2

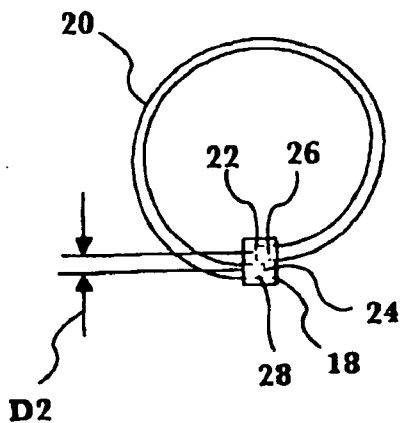


FIG. 4

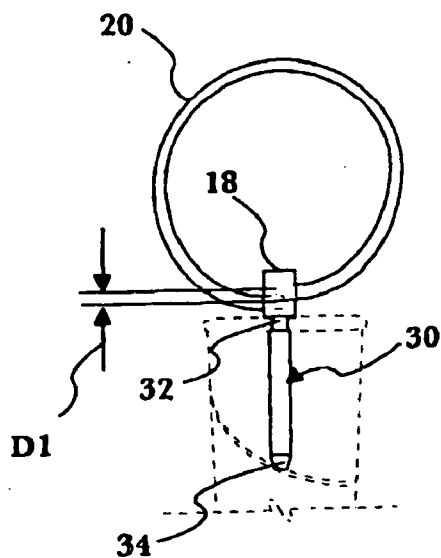


FIG. 3

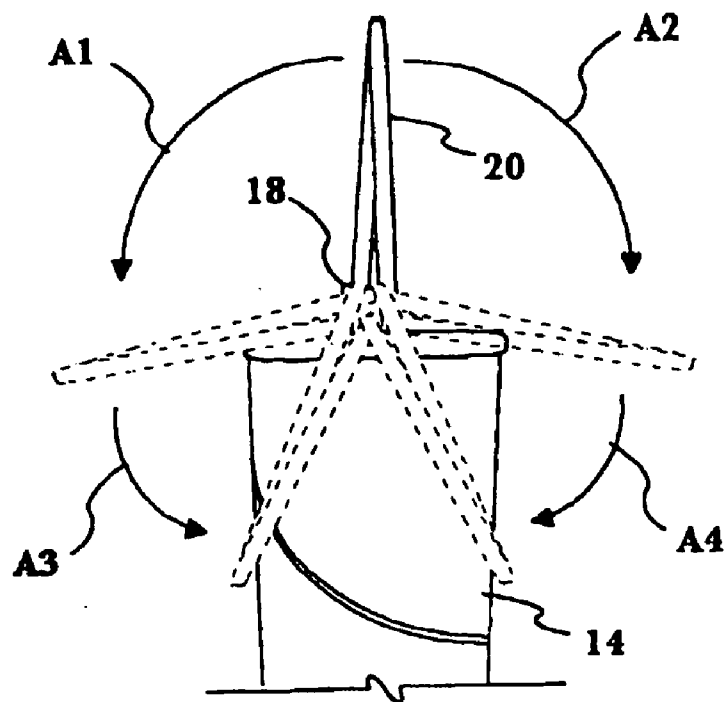


FIG. 5

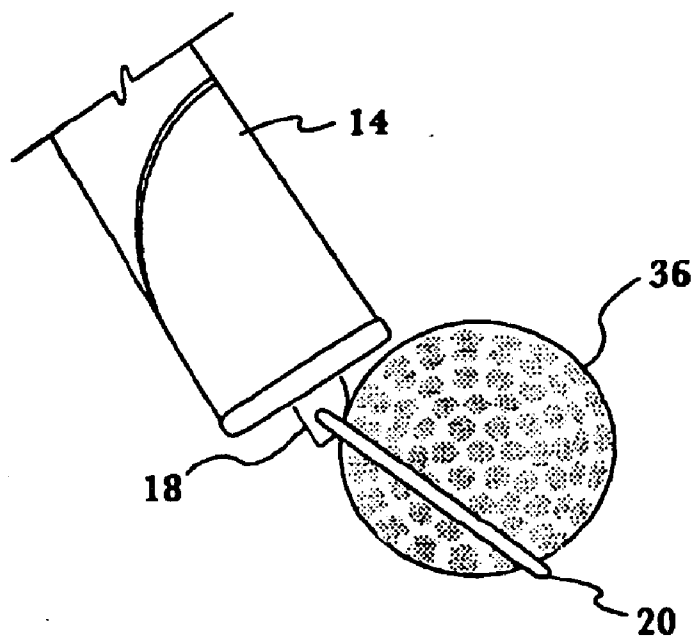


FIG. 6

OBJECT RETRIEVING DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] None

STATEMENT AS TO RIGHTS TO INVENTIONS MADE UNDER FEDERALLY-SPONSORED RESEARCH AND DEVELOPMENT

[0002] None

FIELD OF THE INVENTION

[0003] The invention relates generally to object retrieval, specifically to arrangements for retrieving remotely-located objects such as golf balls.

DESCRIPTION OF RELATED ART

[0004] According to *The Rules of Golf*, “The Game of Golf consists of playing a ball with a club from the teeing ground into the hole by a stroke or successive strokes in accordance with the Rules.” Golf is believed to have originated in Scotland and has been played for several centuries in the British Isles. What we think of as the modern game really came into being in the second half of the 19th century in Scotland. The basic rules of the game and the design of equipment and courses strongly resemble those of today. The major changes in equipment since then were better mowers, especially for the greens, better golf ball designs using rubber and man-made materials beginning around 1900 and the introduction of the metal shaft beginning in the 1930s. Also in the 1930s the wooden golf tee was invented. In the 1970s the use of metal to replace wood heads began, and shafts made of graphite composite materials were introduced in the 1980s.

[0005] Although often viewed as an elite pastime, golf is now increasingly popular and continues to attract ever more players around the world. Golf is seen as “lifetime sport”, capable of being played from early youth until late old age. In addition to providing beneficial social opportunities, the sport of golf is a valuable source of low-impact exercise. A golfer walks an average of 4.5 miles while playing a typical, 18-hole round.

[0006] While golf provides excellent exercise, there are some aspects of the sport that present potential hazards. For example, it has been estimated that a golfer bends over around 70 times during 18 holes of golf. Although many of these instances occur in placing tees, replacing divots, and other activities, the most frequent reason for bending over is to pick up a golf ball. Bending over repeatedly can cause undue stress on a golfer’s back, neck, and upper legs. This can be particularly risky for elderly or handicapped golfers, who may have balance issues as well.

[0007] Not surprisingly, the need for assisting golfers in retrieving golf balls has been the subject of a high degree of inventive activity. Representative of such activity is U.S. Pat. No. 6,692,374 to Colbo, which is directed to a retrieving device including a support bracket and an expandable ball holder member which has a pair of arms with outer end portions capable of being flexed away from one another and having oppositely curved configurations, and an intermediate structure rigidly interconnecting inner end portions of the

arms and pivotally connected to the lower end of the support bracket such that the expandable member is pivotally movable between a first position in which it extends alongside the support bracket and a second position in which it extends outwardly from the lower end of the support bracket such that when the retrieving device is used to retrieve a golf ball with the expandable member in the second position the outer end portions of the arms thereof are forced against the golf ball causing their outward flexing from one another to fit around and support the golf ball for lifting it.

[0008] In another example, U.S. Pat. No. 5,690,558 to Huber deals with a golf ball retriever attached to the handle of a golf putter used to retrieve a golf ball from a playing surface and to concurrently deposit a golf ball marker in place of the golf ball. The apparatus includes a fork rotatably mounted to a support body that is secured to the extremity of the handle of a golf club shaft. The fork has a pair of arms which lie substantially in a common plane and are arcuately curved toward each other. One of the arms is longer than the other. A golf ball marker with a turf-engaging spike is placed on the underside of the body supporting the fork and is held thereto by a magnet within the support body. The fork is moved toward the golf ball while residing at a lifting angle inclined about fifteen degrees downwardly relative to the golf club shaft. The arms of the fork engage the undersurface of the golf ball and cradle it therebetween. Once the golf ball has been cradled within the arms of the fork, the shaft is pressed downwardly, thereby engaging the spike of the ball marker in the turf. The fork is then moved laterally away from the ball marker in a scooping motion, thereby overcoming the magnetic force of attraction holding the ball marker to the support. This leaves the golf ball marker in the former position of the golf ball, while the golf ball itself is scooped up.

[0009] U.S. Pat. No. 5,520,389 to Furrow shows a golf ball retrieval device adapted to be removeably secured to the handle end of a golf club comprising: a golf club handle receiving member, said receiving member being hollow and having a circular cross-section throughout the length thereof, said circular cross-section decreasing in diameter from an exterior end thereof to an interior end thereof to form a hollow truncated conical shape adapted to receive golf club handles of varying diameters therein and to frictionally engage such handles by contact with the internal surfaces of said hollow truncated conical shape; an end plate radially disposed across the interior end of said truncated conical shape to prevent entrance or egress therefrom; and, a thin annular member affixed to said end plate at one edge thereof, said annular member extending from said plate and from the truncated conical shape to which it is affixed.

[0010] In U.S. Pat. No. 4,687,204 to Lempio, a golf ball retriever is adapted for attachment to the butt end of a golf club to form an extension thereof. The retriever includes a scoop adapted to retrieve and retain a golf ball therein and a bent wire-like attachment secured to the scoop and insertable through a standard hole formed axially through the golf club grip for frictionally attaching the retriever to the golf club.

[0011] In another example, U.S. Pat. No. 3,273,927 to Carlson is directed to a golf ball retriever including a handle engaging member in the form of a resilient collar which may be easily slip-fitted over any suitable handle such as the

hand grip end of a golf club for example, or over an end of any suitable pole or rod. Secured to the collar is a flexible and resilient strap defining a loop which bulges so that its widest diameter is greater than that of the collar and is of a size which will conveniently receive and retain an ordinary golf ball.

[0012] In U.S. Pat. No. 3,239,264 to Dupont, a ball pick-up device consists of a member that is adapted to be readily attached to an end of a golf club, and wherein the pick-up device may be made of an integral construction so that it embodies a resilient or yieldable sleeve having an integral chink with a generally circular ball pick-up member integral therewith, or else the ball pick-up device may be made in the form of a yieldable sleeve having a separate shank portion or support member affixed thereto and with the circular element formed integral with or secured to the shank portion as desired or required.

[0013] U.S. Pat. No. 2,524,527 to Jasmer deals with a golf ball retriever in which the ball holding means is thereof is hingedly connected to the base portion of the retriever, which is adapted to be detachably connected to the iron head of a golf club. The ball holding means may be swung between a working position in which the ball holding means extends angularly away from the base portion, and a storage position in which the ball holding means is disposed substantially coplanar with and adjacent to the base portion.

[0014] Finally, U.S. Pat. No. Des. 380,026 to Frankel is directed to an ornamental design for a golf ball retrieval device. The device shows a fixed loop extending from the handle end of a golf club.

[0015] Although these known retrieval apparatus provide assistance in picking up golf balls, they present significant drawbacks. Many known retrieval systems are relatively complex, resulting in correspondingly high manufacturing and purchase costs, and low reliability. Others are simple, rigid devices that are cumbersome to use and carry.

[0016] It can be seen from the foregoing that the need exists for a golf ball retrieving device that overcomes the shortfalls of known arrangements in this technology.

SUMMARY

[0017] In accordance with the principles of the present invention, an object retrieving device for use with an elongated member includes a holder secured to the elongated member. A first recess is provided in a first side of the holder, and a second recess is provided in a second side of the holder. The first recess is longitudinally offset from the second recess. A hoop has a first end secured in the first recess of the holder, and a second end secured in the second recess of the holder. The hoop is rotatably held in a state of constant spring tension by the holder.

[0018] The invention itself, however, both as to organization and method of operation, together with further objects and advantages thereof, may be best understood by reference to the following description taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] **FIG. 1** illustrates a schematic perspective view of an object retrieval device in accordance with the principles of the present invention.

[0020] **FIG. 2** illustrates a detailed schematic perspective view of an object retrieval device in accordance with the principles of the present invention.

[0021] **FIG. 3** illustrates a schematic front elevational view of an object retrieval device in accordance with the principles of the present invention.

[0022] **FIG. 4** illustrates a schematic plan view of an object retrieval device in accordance with the principles of the present invention.

[0023] **FIG. 5** illustrates a schematic side elevational view showing various positions of an object retrieval device.

[0024] **FIG. 6** illustrates a schematic side elevational view of an object retrieval device used to retrieve an object.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0025] While this invention is susceptible of embodiment in many different forms, there is shown in the drawings, and will herein be described in detail, exemplary embodiments, with the understanding that the present disclosure is to be considered as illustrative of the principles of the invention and not intended to limit the invention to the exemplary embodiments shown and described.

[0026] **FIG. 1** illustrates an object retrieval device **10** in accordance with the principles of the present invention. The object retrieval device **10** is adapted to be secured to an elongated member **12**, such as a golf club. The elongated member **12** has a primary end **14**, here the handle end, and a secondary end **16**, here illustrated as the head end of the club. The retrieval device **10** is secured to the primary end **14** of the elongated member **12**. As shown in **FIG. 2**, the object retrieval device **10** includes a holder **18** and a bale or hoop **20**. In **FIG. 2**, the retrieval device **10** is shown in a first position in which the hoop **20** is disposed adjacent to the elongated member **12**. In this position, the retrieval device **10** is relatively unobtrusive, and facilitates use of the elongated member **12**, such as in using a golf club to strike a ball, or easy storage of the elongated member **12**, such as placement of a golf club into a golf bag.

[0027] Particulars of the construction of the retrieval device **10** can be seen in **FIGS. 3 and 4**. The holder **18** of the retrieval device **10** includes a first recess **22** in a first side of the holder **18**, and a second recess **24** in a second side of the holder **18**. The first recess **22** is longitudinally offset from the second recess **24**, in a vertical direction **D1** and a horizontal direction **D2**. The hoop **20** of the retrieval device **10** includes a first end **26** secured in the first recess **22** of the holder **18**, and a second end **28** secured in the second recess **24** of the holder **18**. As illustrated, the retrieval device **10** can be provided as a standard tractor lynch pin, such as those available from a variety of tractor replacement part supply sources. In the illustrated construction, the holder **18** of the retrieval device **10** is secured to a pin **30**. The pin **30** preferably includes a shaft **32** provided with an annular recess **32** at a first end of the shaft, and a frustoconical point **34** at a second end of the shaft. When used in association with a golf club, the frustoconical point **34** facilitates insertion of the retrieval device **10** into a centrally-disposed hole in the golf club handle, and the annular recess **32** provides a shoulder for retaining the retrieval device **10** within an end of the golf club handle. The holder **18** and/or the hoop **20** can

be provided with a grip-enhancing coating or texture to further assist in object retrieval. In the illustrated embodiments, the holder 18 and hoop 20 are provided with a flexible rubber coating.

[0028] FIG. 5 illustrates the range of motion of the retrieval device 10. Due to the offset of the ends 26, 28 of the hoop 20, the hoop 20 is rotatably held in a constant state of spring tension by the holder 18. As a result, the hoop 20 remains stable when rotated to any position within approximately 110° in either direction from a vertical position P, as shown by arrows A1 and A2. However, when rotated beyond approximately 110° in either direction from a vertical position P as shown by arrows A3 and A4, the hoop 20 is urged into its first position, wherein the hoop 20 is disposed adjacent to the elongated member 12.

[0029] The retrieval device 10 is shown in a second, retrieval position in FIG. 6. In this position, the hoop 20 of the retrieval device 10 is placed in a desired angle to the elongated member 12, and can then be used to retrieve an object 36, such as a golf ball. In the illustrated example, the diameter of the hoop 20 has been chosen to accommodate retrieval of golf balls. Since the hoop 20 of the retrieval device 10 is held in position by spring tension, the angle of the hoop 20 can be set to facilitate easy retrieval of the object 36 in a wide variety of locations. Once the object 36 has been retrieved, it can be removed from the hoop 20, after which the hoop 20 is rotated into its first position for further use or storage of the elongated element 12.

[0030] While details of the invention are discussed herein with reference to some specific examples to which the principles of the present invention can be applied, the applicability of the invention to other devices and equivalent components thereof will become readily apparent to those of skill in the art. For example, it is contemplated that the object retrieval device of the present invention will find utility in contexts outside of retrieving golf balls. It will become apparent that other hoop sizes and configurations can be applied in the present invention to accomplish a variety of object retrieval tasks, such as assisting handicapped individuals in reaching any manner of remotely-located objects. Accordingly, it is intended that all such alternatives, modifications, permutations, and variations to the exemplary embodiments can be made without departing from the scope and spirit of the present invention.

What is claimed is:

- 1. An object retrieving device comprising:
 - A. an elongated member with a primary end and a secondary end, and
 - B. a hoop extending from at least one transverse recess in a first end of a pin,
 - 1. said pin having a second end that is disposed in the primary end of the elongated member,
 - 2. said hoop having a proximal section that is disposed in the at least one recess and a distal section disposed opposite the proximal section,
 - a) said hoop being positionable in the at least one recess in one of a first position in which the distal section of the hoop is disposed adjacent to the elongated member near the primary end and a

second position in which the distal section of the hoop extends away from the elongated member,

whereby, a user can grasp the elongated member and retrieve an object with the hoop disposed in the second position.

- 2. An object retrieving device in accordance with claim 1, wherein said elongated member comprises a golf club, and said primary end of said elongated member comprises a handle of said golf club.
- 3. An object retrieving device in accordance with claim 2, wherein said pin is inserted into said handle of said golf club.
- 4. An object retrieving device in accordance with claim 3, wherein said pin comprises a frustoconical tip.
- 5. An object retrieving device in accordance with claim 3, wherein said pin comprises an annular recess.
- 6. An object retrieving device in accordance with claim 1, further comprising a grip-enhancing surface on said hoop.
- 7. An object retrieving device in accordance with claim 6, wherein said grip-enhancing surface on said hoop comprises a rubber coating.
- 8. An object retrieving device for use with an elongated member, the object retrieving device comprising the following:
 - a holder secured to an end of the elongated member, the holder including a first recess in a first side of the holder, and a second recess in a second side of the holder, the first recess being longitudinally offset from the second recess; and
 - a hoop having a first end secured in the first recess of the holder, and a second end secured in the second recess of the holder, the hoop being held in a state of constant spring tension by the holder
 whereby, a user can grasp the elongated member and retrieve an object with the hoop.
- 9. An object retrieving device in accordance with claim 8, wherein the first recess is longitudinally offset from the second recess in a horizontal direction.
- 10. An object retrieving device in accordance with claim 8, wherein the first recess is longitudinally offset from the second recess in a vertical direction.
- 11. An object retrieving device in accordance with claim 8, wherein the elongated member comprises a golf club, and the holder is secured to a handle of the golf club.
- 12. An object retrieving device in accordance with claim 8, further comprising a pin securing the holder to the elongated member.
- 13. An object retrieving device in accordance with claim 12, wherein the pin comprises a frustoconical tip.
- 14. An object retrieving device in accordance with claim 13, wherein the pin comprises an annular recess.
- 15. An object retrieving device in accordance with claim 8, further comprising a grip-enhancing surface on the hoop.
- 16. An object retrieving device in accordance with claim 15, wherein the grip-enhancing surface on the hoop comprises a rubber coating.
- 17. A method for converting a golf club into an object retrieval device, the method comprising the following steps:
 - providing a golf club having a handle with a primary end having a centrally-disposed hole;

providing a tractor lynch pin including a pin, a holder connected to the pin, and a hoop secured to the holder, the hoop having a diameter sufficient to support a golf ball; and

inserting the tractor lynch pin into the centrally-disposed hole of the primary end of the golf club handle.

18. A method in accordance with claim 17, wherein the step of providing a tractor lynch pin comprises providing a tractor lynch pin including an annular recess, and wherein the step of inserting the tractor lynch pin into the primary

end of the golf club comprises inserting the pin to cause the annular recess to engage the golf club handle

19. A method in accordance with claim 17, further comprising the step of providing the hoop with a grip-enhancing surface.

20. A method in accordance with claim 19, wherein the step of providing the hoop with a grip-enhancing surface comprises providing the hoop with a rubber coating.

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