United States Patent [19]

Seeger

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[54] **GOLF BALL RETRIEVER**

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[52] **U.S. Cl.** ..... **294/19 A**

[51] **Int. Cl.** **A47f 13/06**

[58] **Field of Search** ..... 294/19 R, 19 A, 22, 294/99 R; 56/332, 333, 339

[56] **References Cited**

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3,265,430 8/1966 Jenkins ..... 294/19 A

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2,791 2/1902 Great Britain ..... 294/19 A

Primary Examiner—Evon C. Blunk
Assistant Examiner—Johnny D. Cherry
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[57] **ABSTRACT**

A golf ball retriever is disclosed which is adapted to be removably attached to the end of an elongated rod or telescoping member. One embodiment comprises two elongated wires forming a pair of loops with the four ends of the loops secured within a tubular hub or bushing. The one end of the bushing is threaded for attachment to the end of an elongated rod. The two loops are perpendicularly positioned with respect to each other to form a cage-like structure. The two wires forming the loops are drawn together midway up the one side of each loop and are secured in that position by a metal band which is crimped onto the two wires. This drawing together of the wires on the one side of each loop causes the other sides of the loops to flex away from each other to form an opening nearly the size of a golf ball. Upon contact with the golf ball, either from the front or side of the retriever, the opening of the loop is slightly expanded to receive the ball and then closes around the ball once it is within the cage-like area formed by the two loops.

Another embodiment discloses a wire continually wound to form a helix with the one end thereof being connected to the threaded bushing. The mid-portion of the helix is enlarged with respect to the end turns to form a cage-like structure. The other end of the wire which forms the final turn of the helix also forms an entryway which is slightly smaller than the size of a golf ball. The entire helix is compressible upon contact with the golf ball until the entryway is flexed open to receive the ball. When this occurs, the helix again expands to move down over the ball to completely envelop it in the cage-like area formed by the helix. The last turn of the helix than retracts back to its original position to retain the ball within the cage-like structure.

7 Claims, 3 Drawing Figures

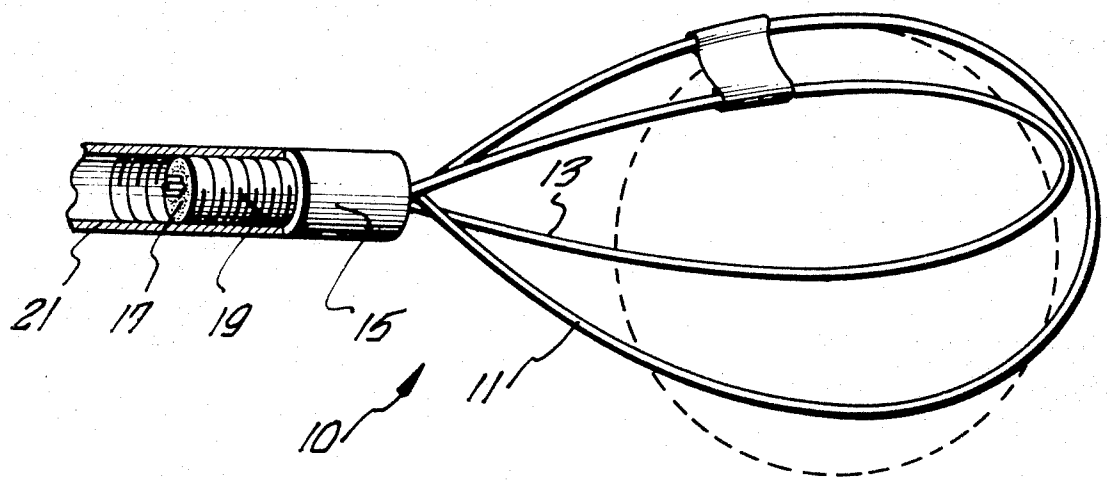


FIG. 1

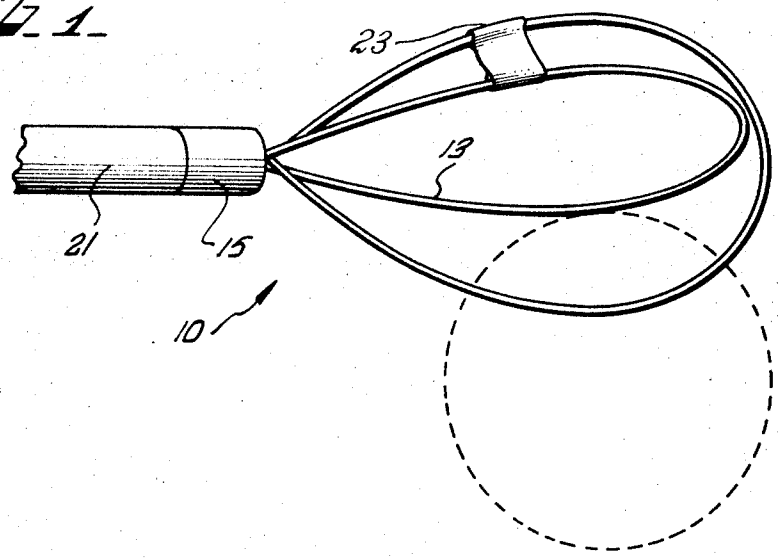


FIG. 2

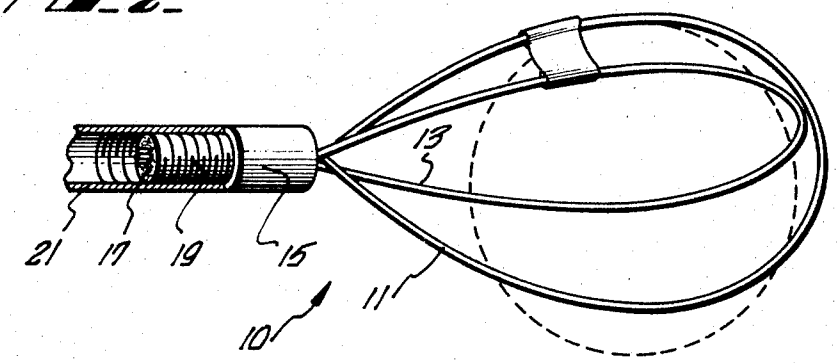
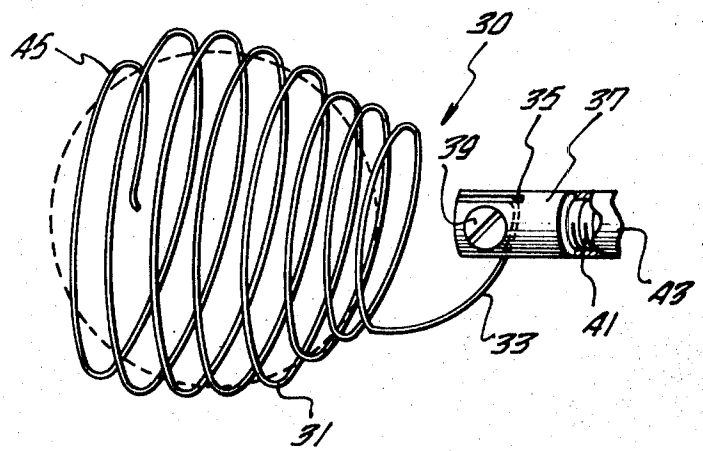


FIG. 3



GOLF BALL RETRIEVER

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to implements for grasping objects and more particularly to golf ball retrievers for picking up golf balls out of water hazards, animal burrows, or the like.

2. Description of the Prior Art

There have been various golf ball retrievers patented and/or developed to be utilized as an aid to golfers. However, prior golf ball retrievers have suffered from various shortcomings which have severely restricted any widespread commercial utilization.

An early golf ball retriever is shown in U.S. Pat. No. 1,658,145. The retriever disclosed in that patent utilizes a pair of U-shaped members made of elongated plates of spring steel. The two members are interconnected at their bases to the end of a shaft with the four extremities of the members extending axially outward to form a cup. These extremities, or fingers, are adapted to flex outwardly over the ball and then contract as they pass over the ball to enclose it within the fingers. Although such a device works in a fashion, several shortcomings are present which have prevented its widespread use. One shortcoming is that the flexible fingers are easily susceptible to damage. Such devices are usually stored in the golf bag, and the constant jostling and contact with the other clubs in the bag tend to bend the fingers out of shape to render them inoperable.

Another shortcoming with such an apparatus is that it can only function to pick up a golf ball through the front of the head and not from the side. This makes the operation awkward in many instances where it would be more convenient to approach the ball from the side of the head. Because of this shortcoming, the apparatus is recommended to be used only for picking golf balls directly below the player to relieve the player from bending over.

U.S. Pat. No. 1,723,091 shows a golf ball retriever having a plurality of fingers which are resiliently impelled toward each other to collectively grasp a golf ball. The fingers are triggered by a plate having associated therewith a plurality of links functioning as a toggle joint. When the toggle is in the extended position, the spring fingers are forced apart to permit the entry of the ball into the cage-like structure of the grapping device. When the ball strikes the plate, the inertia of the ball is adapted to break the toggle and thereby permit the spring arms to enfold toward one another and grip the ball tightly.

The main shortcoming with such a device is that the cage-like structure must be in an expanded position before it can be placed over the golf ball. Because of this, the structure cannot fit into tight places to retrieve a ball. A good example would be an animal burrow. If a ball had fallen in such a hole, the apparatus could not enter the hole to encompass the ball. As is well know, such burrows are quite common on golf courses. Another place that the apparatus disclosed in U.S. Pat. No. 1,723,091 could not be utilized is where a golf ball is on the other side of a chain link fence. In this situation, the apparatus would not be able to fit through the openings forming the fence. Another example of a tight place to retrieve golf balls would be thickly wooded

shrubs and trees. Such expanded retrievers cannot penetrate such foliage to reach the ball.

Another grasping device is shown in U.S. Pat. No. 2,116,651. This apparatus utilizes a pair of tong members which are actuated to close around an object. The actuator comprises a plunger which draws the normally open tong into the end of the tube to come together in the grasping or closed position.

The major shortcomings with such an apparatus are two: (1) the added complexity of the actuator structure and its susceptibleness to malfunction; and (2) the tong members are in a normally expanded position as it reaches for the object. The problems of this widened structure getting into tight places are discussed in the apparatus mentioned above.

Finally another golf ball retriever is disclosed in U.S. Pat. No. 2,448,644. This retriever comprises a pair of tongs formed by bent wire with the one end thereof being hooked for attachment to the head of a golf club. This retriever also has not gained commercial acceptance because of various shortcomings. One major shortcoming is that the tongs are not secured to each other except at the base. As a result, these tongs can be easily bent to become inoperable. Another problem is that such retrievers are difficult to manufacture because of the many bends made on the wire. Another major problem is that by utilizing a golf club head as the holder, the retriever is not able to get into tight places such as burrows, fence holes, etc.

SUMMARY OF THE INVENTION

The present invention obviates the above-mentioned shortcomings by providing a golf ball retriever that is easily manufactured, is capable of getting into tight spots, and is sturdy in construction.

One embodiment of the golf ball retriever comprises a tubular hub or bushing having threads formed on one end thereof for attachment to the end of an elongated rod. A pair of elongated wires are provided, each wire forming a loop with the ends thereof extending through the bushing. The four ends of the wire loops are then bonded within the bushing, preferably by a soldering process. With the two loops being perpendicular to each other to form a cage-like structure, two lateral sides of the loops are drawn towards each other and secured in that position by a metal band. This opens up the other side of the loops to a size nearly the size of a golf ball. Upon contact with the ball either from the side or top of the retriever, the opening of the loop is slightly expanded to receive the ball and then closes once the ball is within the cage-like area formed by the two loops.

Another embodiment of the present invention provides a retriever formed by a wire which is continually and helically wound. One end of the wire is connected to the bushing having a threaded end for attachment to an end of an elongated rod. The mid-portion of the helix is enlarged with respect to the end turns to form a cage-like structure. The other end of the wire forming a last turn is made slightly smaller than the size of a golf ball to form an entryway for the golf ball. The entire helix is compressible upon contact with the golf ball until the entryway is flexed open to receive the ball. When this occurs, the helix moves down over the ball to completely envelop it as the ball is retained therein by the last turn of the helix.

A primary advantage of the present invention is that these retrievers are interchangeable on the end of an elongated rod. Therefore, after the head becomes used, it can be easily replaced on the rod. This eliminates the need to buy a new rod once the head has been damaged.

Another primary advantage of the present invention is that the retriever head does not expand until it contacts the golf ball. Because of this, the retriever head can easily fit into tight places such as burrows, fence holes, etc.

The features of the present invention which are believed to be novel are set forth with particularity in the appended claims. The present invention, both as to its organization and manner of operation, together with further objects and advantages thereof, may best be understood by reference to the following description, taken in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a golf ball retriever of the present invention;

FIG. 2 is a view similar to that of FIG. 1 with the bushing partially broken away to illustrate the interior thereof; and

FIG. 3 is a perspective view of a second embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings, FIG. 1 and 2 illustrate a golf ball retriever, generally indicated by arrow **10**, comprising a pair of elongated wires **11** and **13**, each wire forming a respective loop. The two loops are positioned substantially perpendicular to each other to form a cage-like structure. The four ends of the wires **11** and **13** are joined together to extend through the interior of a hollow bushing **15**. These four ends are bonded to the interior of the bushing **15**, preferably by a quantity of solder **17** (See FIG. 2).

The lower end of the bushing **15** includes a set of external threads **19** for connection to one end of an elongated rod **21**. Although not shown, the rod **21** can consist of a single elongated rod or a plurality of telescoping rods, both being of conventional construction.

The two wires **11** and **13** are drawn together about midway up the one side of each loop and are secured in that configuration by a metal band **23**. The ends of the metal band **23** extend about each wire **11** and **13** and are crimped thereto.

This drawing together of the two wires **11** and **13** on one side of each loop causes the other sides of the loops to flex away from each other to form an opening for receiving a golf ball (shown in broken lines). As shown in FIG. **1**, the maximum distance between the wires forming the opening is slightly less than the diameter of the golf ball.

When it is desired to retrieve a golf ball with the retriever **10**, the apparatus is positioned adjacent the ball in such a manner that the opening formed by the two loops contacts the ball (as shown in FIG. 1). The two loops are then forced against the ball to enable the wires forming the opening to flex outwardly and receive the ball. As the ball is being completely enveloped within the cage-like structure, the same ends function to close around the ball to retain the ball therein. As can be seen, the retriever operates easily to grasp the ball without any trip or actuation means.

Another important advantage of the first embodiment is that the retriever can approach the golf ball from the front end of the retriever to accept the ball through the front face of the opening. Moreover, since the cross sectional area of the retriever is less than the diameter of the ball, it can be placed into any burrow or location that the ball can pass through. As a result, the retriever can enter any hole or tight location and grasp a ball that is lodged therein.

FIG. **3** illustrates a second embodiment of the present invention in which a retriever, generally indicated by arrow **30**, comprises an elongated wire **31** continuously wound to form a helix. The mid-portion of the helix is enlarged with respect to the end turn to form a cage-like structure.

One end **33** of the wire **31** is adapted to be positioned with a groove **35** formed in the one end of a bushing **37**. The wire end **33** is bent in a circle and is adapted to be secured within the groove **35** by a screw **39**. The other end of the bushing **37** has a set of external threads **41** formed thereon for attachment to one end of an elongated rod **43**. It should be noted that the bushings **15** and **37** have threaded ends of the same size to enable them to be interchangeable on the same rod.

The other end **45** of the wire **31** forms the final turn of the helix, which functions as an entryway for the golf ball. The diameter of this last turn is slightly smaller than the diameter of the golf ball.

In order to retrieve a golf ball, the entryway of the retriever is positioned over the golf ball, with a downward axial force being applied to the retriever. The entire helix compresses as the entryway contacts the ball until the final turn of the helix is forced to flex open to receive the ball. When this occurs, the helix expands to move down over the ball to completely envelop it. Once the ball is enveloped inside the helix, the final turn of the helix functions to close over the ball to keep it retained therein.

As can be seen, both embodiments disclose a ball retriever that is easily manufactured, sturdy in construction and operable in any type of tight location.

It should be noted that various modifications can be made to the apparatus while still remaining within the purview of the following claims.

What is claimed is:

1. A golf ball retriever comprising:

a shaft;

a single pair of loops, each of the loops being individually attached to the shaft and lying respectively in planes which are positioned approximately perpendicular to each other, the loops crossing each other to form a cage-like area therebetween for releasably holding a golf ball; and

spacing means connected between the loops and positioned between the attachment point of the loops with the shaft and the cross-over point of the loops, to force the sides of each loop opposite the spacing means to flex away from each other to form an opening for receiving a golf ball, the loops being pivotally secured by the spacing means to permit the loops to rotate about the spacing means.

2. The invention of claim **1** wherein the two sides of the loops forming the opening are spaced at a distance slightly smaller than the diameter of a golf ball.

3. The invention of claim 1 wherein said loops are formed by two elongated wires, the two ends of each wire are brought together to form each loop.

4. The invention of claim 3 wherein the four ends of both wires are secured within a bushing.

5. The invention of claim 4 wherein said bushing comprises external threads formed thereon for attachment to the end of an elongated rod.

6. The invention of claim 3 wherein the spacing means includes a metal band attached to the wires.

7. The invention of claim 6 wherein the ends of said metal band are crimped about the wires at points midway up the sides of the loops.

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