May 13, 1958 J. A. WILLIAMS 2,834,629

GOLF BALL RETRIEVER

Filed March 20, 1956

FIG. 1

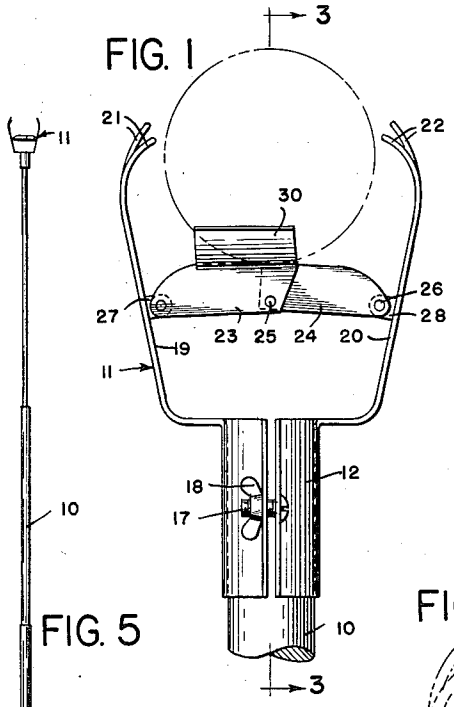


FIG. 2

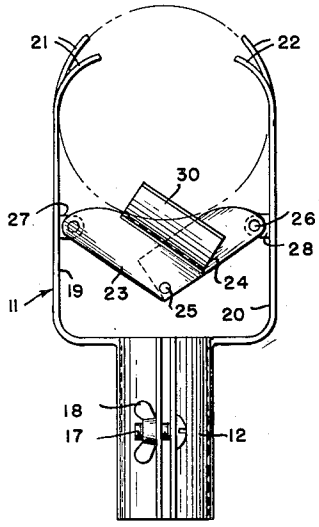


FIG. 5

FIG. 3

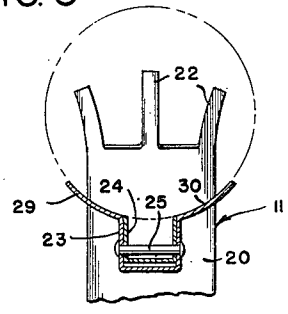


FIG. 6

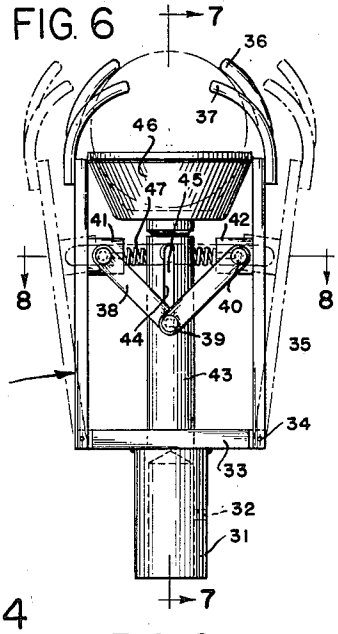


FIG. 7

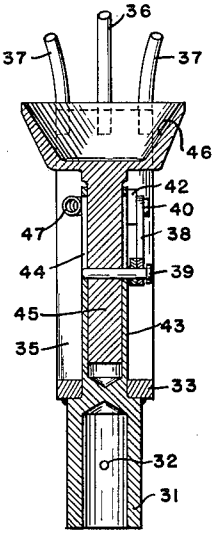


FIG. 4

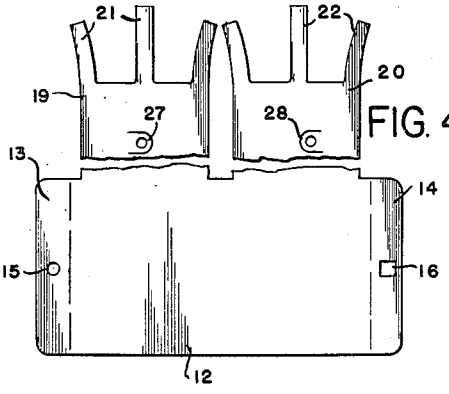
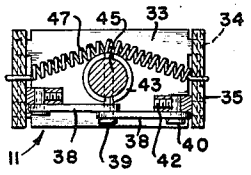


FIG. 8



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GOLF BALL RETRIEVER

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3 Claims. (Cl. 294—19)

This invention relates to equipment employed in various types of operations which require substantial additional reach, whether on land, sea or in the air, and more particularly to a golf ball retriever, by means of which golf balls lost in water hazards and in other inaccessible places beyond the reach of man can be easily retrieved or recovered.

The invention relates to a golf ball retriever which can be carried in a golf bag or golf cart along with a sectional rod or pole and such rod or pole can be set up with the retriever attached and utilized for recovering golf balls from water hazards and other inaccessible locations.

It is an object of the invention to provide a golf ball retriever and a segmental handle both of which can be carried in a golf bag and quickly assembled and used for recovering a golf ball from an inaccessible location, such device having a golf ball engaging and holding mechanism operable upon slight contact with the ball to project its fingers around, engage, and hold the ball, so that it can be withdrawn from water or other inaccessible environment.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing wherein:

Fig. 1 is a side elevation illustrating one application of the invention in expanded position;

Fig. 2, a similar view with the parts in contracted position;

Fig. 3, a vertical section taken on the line 3—3 of Fig. 1;

Fig. 4, a plan view of a blank employed in producing the head of the device;

Fig. 5, a side elevation of a segmental rod or pole;

Fig. 6, a side elevation of a modified form of retriever head;

Fig. 7, a section taken on the line 7—7 of Fig. 6; and

Fig. 8, a section taken on the line 8—8 of Fig. 6.

Briefly stated, the invention comprises a segmental shaft and a retriever head, the shaft preferably being composed of a plurality of telescopic pipe or tube sections so that a pole can be readily made by telescoping the sections, and the head can be applied and the device readily used for recovering or retrieving golf balls from a water hazard or other inaccessible location. The head is provided with means in the form of a set screw for quickly and securely attaching the same to the pole.

The head is composed of a body having opposed jaw or cage forming portions resiliently held separated by means of a pair of pivotally connected links, the pivot of which is beyond center and disposed in a position to be engaged by a golf ball over which the device is applied so that when the golf ball touches the links they will move to allow the poles, jaw or cage portions of the head to move toward each other to contact with and to hold a golf ball. The device is intended to be carried in collapsed condition with a golf cart or golf bag to be used when required, with little effort or loss of time,

thereby having a psychological effect on the player by eliminating the expense of the loss of golf balls.

With continued reference to the drawing, the retriever of the present invention comprises a handle **10** composed of plurality of telescopic sections and a head **11**, the latter being constructed so that upon contact with a golf ball it will trip and grip the same so that it may be removed from an inaccessible location.

The head may be composed of metal which possesses the necessary springiness or resiliency, or if preferred, a spring can be added. In the first five figures, the head possesses the necessary resiliency, while in Figs. 6, 7 and 8, a helical spring is provided to supply such resiliency, the head illustrated in Figs. 1 to 5 being capable of being produced at less cost than that of the remaining figures, although to a degree less durable.

The retriever head of Figs. 1 to 5 may be formed from a blank, as shown in Fig. 4, and include a body or base portion **12** with end flanges **13** and **14** having openings **15** and **16** for a clamping bolt **17**. The opening **16** is preferably square, in order to receive the square shank of the bolt and prevent relative rotation, so that a wing nut **18** can be employed for attaching the body **12** upon the pole **10**, such body having a generally cylindrical shape.

The body **12** is provided with integral portions **19** and **20**, which are in opposed relations and form the side portions of the device. Due to the fact that the mounting portion of the device is of smaller diameter than a golf ball, these integral opposed portions **19** and **20** extend first in diverging and then in parallel relation spaced slightly less than the diameter of a golf ball.

The portions **19** and **20** have curved grappling portions or cage forming extensions **21** and **22** located in opposed relation for engaging and holding a golf ball. These extensions are somewhat similar to the fingers of the human hand in that they provide a socket which conforms to the exterior of a golf ball. The central extension which corresponds to the middle finger of the hand is somewhat longer and slightly less curved than the extensions at each side of the same to provide the desired configuration, as will be apparent from Figs. 1 and 2.

In the embodiment of Figs. 1 to 5, the retriever head is composed of spring metal and the opposed side portions and extensions tend to remain in their closer relation because of the springiness of the metal and consequently in such closer relation the opposed extensions are slightly closer than the diameter of a golf ball and in order to accommodate a golf ball it is necessary that some means be provided for spreading such opposed portions, so that a golf ball can pass between the same and for holding such opposed portions in such expanded relation until such time as a golf ball is between them, so it can be trapped and held, whereupon the spreading means can be rendered inactive as soon as the golf ball is within the cage portion of the head in a position to be trapped.

In order to provide means for maintaining the opposed spring metal jaws spaced sufficiently to permit the passage of a golf ball between the same, a pair of toggle levers **23** and **24** are employed, and they are connected by means of a pivot **25**, and their opposite extremities are connected by pivots **26** to ears **27** and **28** struck from the opposed members **19** and **20**. The toggle levers **23** and **24** are adapted to be moved until they are slightly off center with the connected ends on the side of the center toward the free ends of the members **19** and **20**, and in sufficient proximity to such free ends that when a ball is in position within the cage portion of the head, it will engage such toggle levers and move their connected ends in an opposite direction beyond center to permit the springiness of the head to engage and hold a golf ball.

The toggle levers **23** and **24** are preferably of U-shaped construction to provide a relatively broad ball engaging area. The toggle lever **23** additionally may have outwardly curved portions **29** and **30** which form in effect a socket or golf ball engaging seat. The structure of the head just described is simple and inexpensive, and yet will satisfactorily perform the purpose for which it was designed.

Instead of the head being stamped from a single piece of metal, it may be made of individual parts, as shown in Figs. 6, 7 and 8, wherein a mounting sleeve **31** is provided having a set screw **32** for securing the device to the pole **10**. Across the end of the sleeve **31** is welded a transverse member in the form of a relatively flat bar **33**, to which are connected by hinges or pivots **34** a pair of identical cage forming side members **35**, each having central extensions or fingers **36**, and a pair of side fingers **37**, which side members and fingers function as in the preceding figures like the jaws of a vise to grip and hold a golf ball.

The opposed side members **35** are connected by a pair of links **38** joined by a pivot **39** and having their opposite ends secured by pivots **40** to bosses **41** and **42** on the side members **35**, such bosses being offset to accommodate the thickness of the links **38**.

Centrally of the head a sleeve **43** has one end attached to the transverse member **33** and extends centrally of the head and is provided with a slot **44** through which the pivot **39**, connecting the links **38**, extends, such pivot being carried by a rod **45** sliding in the sleeve **43** and having a cup **46** on the upper end of the same, such cup being of a size to receive a golf ball therein.

The side members **35** are urged toward each other by means of a helical spring **47**. The links **38** and the pivot **39** form in effect a toggle and when the pivot **39** is in extreme position slightly beyond center the action of the spring will tend to hold it in such position with the opposed side members of the cage spread apart so that a golf ball can pass between the opposed fingers **36**, **37**. When the golf ball enters the cup **46**, it will throw the toggle lever beyond center, so that the spring will pull the jaws of the device together to engage and hold the golf ball. In

the use of the device described it will, of course, be necessary to set or cock the device, that is, move the toggle beyond center so that it will operate to grip and hold a golf ball when the toggle is moved beyond center to thereby release the ball being trapped in the head as soon as it touches the toggle tripping portion of the structure.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is illustrated in the drawing and described in the specification, but only as indicated in the accompanying claims.

What is claimed is:

1. A device for recovering a golf ball comprising a retriever head, a pair of opposed members movable toward and from each other, spring means reacting between and tending to move said members yieldably toward each other, and a toggle for holding said opposed members in spaced relation, means including a concave ball engaging surface on said retriever and operatively connected to said toggle and located in a manner to be engaged by a golf ball passing between said opposed members and acting to shift said toggle to cause said members to engage and hold said golf ball.

2. The invention according to claim 1 in which the concave ball engaging means comprises a plunger having a conical concave surface.

3. The invention according to claim 1 in which the concave ball engaging means is of trough shape and is connected to one of the links of the toggle.

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