Dec. 5, 1933. I. MACDONALD 1,937,828

BALL RETRIEVER

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Fig. 1

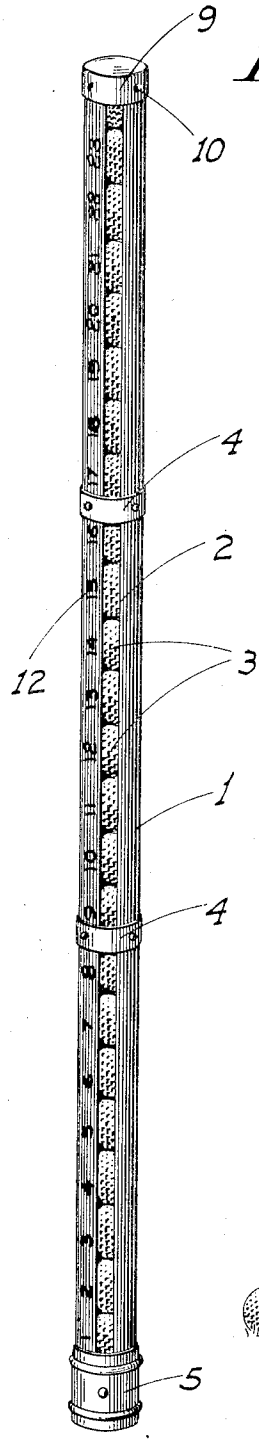
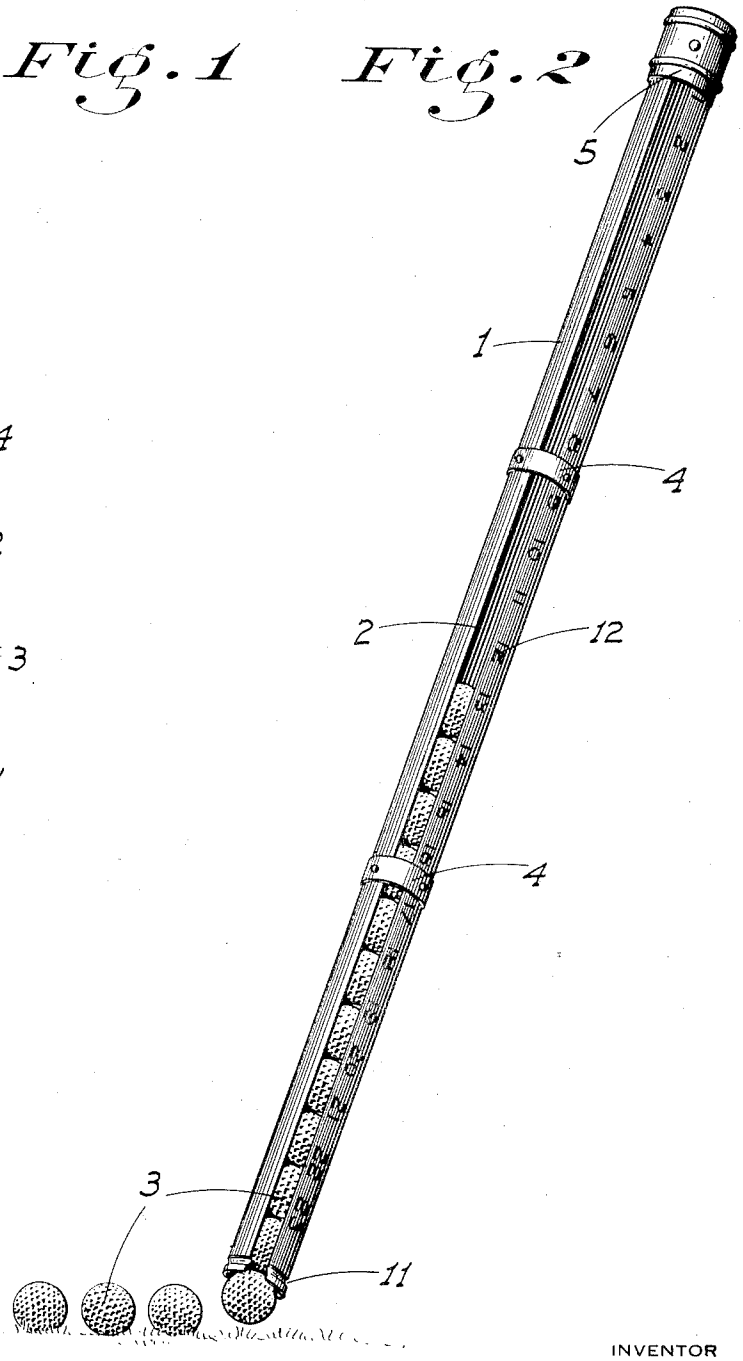


Fig. 2



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Fig. 3

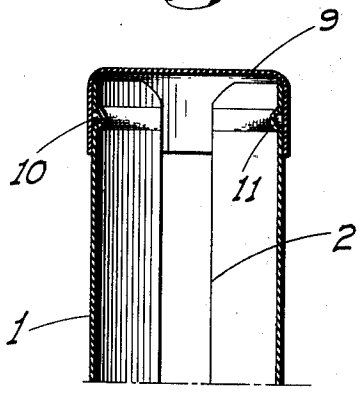


Fig. 4

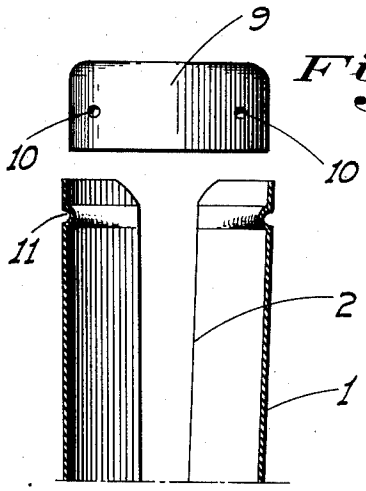


Fig. 5

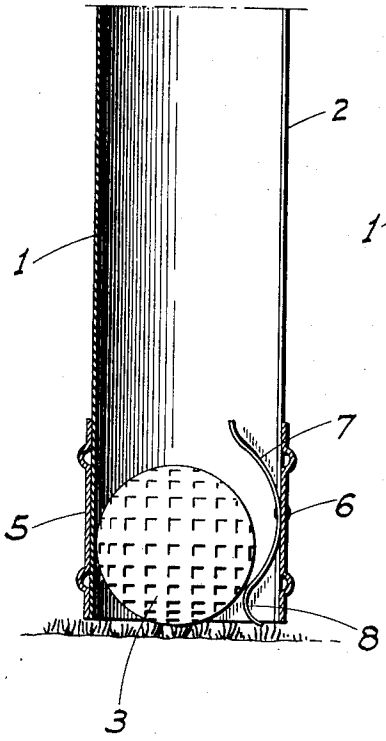


Fig. 6

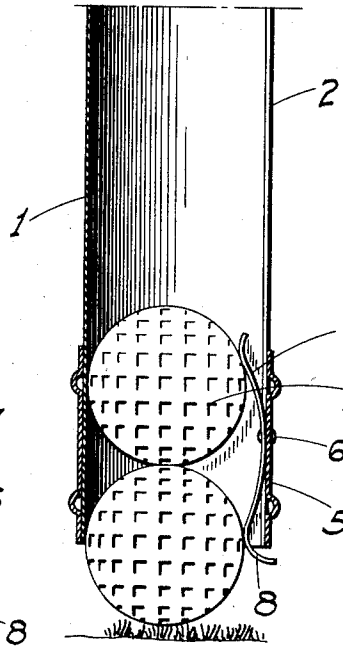
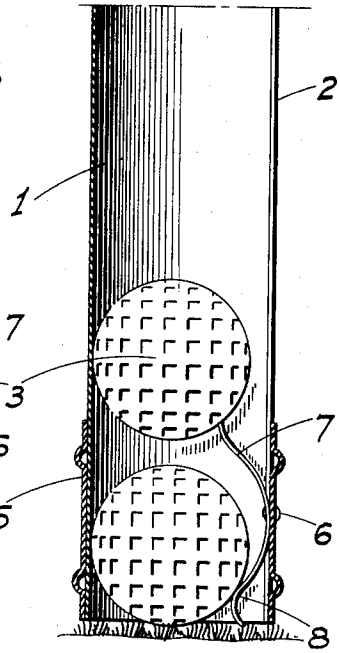


Fig. 7



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UNITED STATES PATENT OFFICE

1,937,828

BALL RETRIEVER

Ian Macdonald, Modesto, Calif.

Application December 6, 1932. Serial No. 645,907

5 Claims. (Cl. 273—66)

This invention relates to golfing accessories, my principal object being to provide a device for gathering balls from the ground and for then retaining them in compact relationship until it is again desired to use the balls.

The device is particularly intended for use in connection with practice work, as when a number of balls are shot with any one club from the same point and they all lie on the fairway within a limited area. The balls are then retrieved, or brought back, to the tee or starting point and again shot out, these operations being frequently repeated many times during the course of a thorough practice.

It is at present customary for the practice balls to be carried in a bag and to retrieve them, either a caddy is hired to "shag" the balls as they are shot out, or the player must himself walk out after he has finished practicing and stoop and retrieve the balls one by one, and place them individually in the bag. The latter procedure is by far the most common and necessitates an ultimately tiring stooping and bending movement for each ball retrieved.

What is more objectionable from a golfing standpoint is the fact that the fairway is apt to be wet from dew or sprinkling and the hand retrieving the balls finally becomes thoroughly wet—a condition which as is well known is fatal to a proper grip on the clubs.

My improved device eliminates these objectionable features in that little or no bending is necessary and the hands of the player never touch the balls so that he can maintain them in a properly dry condition. Also it is much easier to ascertain whether all the balls shot have been retrieved than is at present the case and without having to keep any mental count.

A further object is to provide a device for the purpose which while capable of retaining two or three dozen balls may be carried in a golf bag if desired and which will positively protect the balls therein from possible damage from clubs and other exterior objects.

While the device will be mainly used for retrieving balls from the fairway it may be also used for gathering up balls on a putting green without damaging the surface of the latter in any way.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a perspective view of my retriever in a ball retrieving position.

Fig. 2 is a similar view of the retriever as inverted to discharge the balls.

Fig. 3 is a fragmentary section of the top portion of the device with the removable cap in place.

Fig. 4 is a similar view with the cap adjacent but removed from the ball container to illustrate the normal size of the container relative to the cap.

Fig. 5 is a section of the lower portion of the device showing the location of the first ball retrieved therein.

Fig. 6 is a similar view showing the advancement of said first ball past the stop with the retrieving of a second ball.

Fig. 7 is a similar view showing the second ball fully retrieved or engaged and the first ball fully advanced beyond the stop.

Referring now more particularly to the characters of reference on the drawings, the device comprises a tube 1 preferably formed of a strip of resilient sheet metal with its ends separated a certain distance so as to form a slot 2 extending the full length of the tube. The interior diameter of the tube is somewhat greater than that of standard golf balls 3. Bands 4 spaced at desired intervals along the tube intermediate its ends hold the same to the desired size and against expansion.

A longer band or sleeve 5, the same diameter as the bands 4, is engaged and secured about the lower end of the tube. Secured intermediate its ends to the sleeve intermediate its ends by a rivet or the like as at 6 is a longitudinally extending strap or single leaf spring 7, the width of which is such that it fits within the slot 2. The lower portion of the spring below the rivet 6 projects inwardly of the sleeve and tube and terminates in a downwardly and outwardly curving portion 8. The normal or slack position of the innermost point of the portion 8 is a lesser distance from the opposite side of the tube than the diameter of a ball, while the curvature of the spring from said point to the rivet 6 approximates that of a ball, as shown in Figs. 5 and 7. Similarly the upper portion of the spring above the rivet 6 projects inwardly of the tube with a curvature approximating that of a ball, and its upper end is normally spaced from the opposite side of the tube a distance considerably less than the diameter of a ball, as shown in Figs. 5 and 7. The length of the spring from the curved portion 8 to the upper extremity approximates the diameter of a golf ball.

The top of the tube is normally covered by a removable cap 9 which is the same interior diameter as the bands 4. Since the tube tends to expand its normal size at its upper end, where

there is no securing band 4, its diameter is greater than that of the cap and it must therefore be contracted to enable the cap to fit over the same. This gives a snug fit to the cap tending to prevent the undesired removal of the same. As a further safeguard against such undesired removal, as by the weight of the balls in the tube pressing against the same, I form inwardly projecting nubs 10 about the cap, which engage a circumferential groove 11 in the tube adjacent its upper end.

In operation the device is held in one hand and its lower end is placed over a ball lying on the ground. A downward pressure on the tube causes the lower portion 8 of the spring to be deflected outwardly so as to permit the ball to pass by said portion, the peculiar shape of which permits said ball to be engaged and the spring to be deflected without possible damage being done to the ball. By the time the tube is depressed to the ground the ball has passed the portion 8 and said portion has returned to its normal position and is then under the ball, as shown in Fig. 5, positively preventing dropping of the ball when the tube is lifted. It is of course to be understood that the inherent strength of the spring is greater than the pressure due to the weight of the ball itself. When the tube is again engaged with another ball, the ball already retained in the tube is pressed up by the ball now entering and said upper ball deflects the upper portion of the spring as shown in Fig. 6 so as to permit said upper ball to pass by the same.

As the upper portion of the spring again moves inwardly and under the ball as said spring is released, with the upward movement of the ball past the spring the latter finally supports said ball and prevents the same from pressing down on the ball below. This upper portion of the spring thus forms a stop and support for the main mass of balls as received and forced up in the tube, preventing such pressure being retained on the lowest ball supported by the lower portion of the spring as would cause said portion to be forced outwardly and the balls to drop to the ground. The upper portion of the spring cannot thus move however no matter how many balls may be pressing down on the same since the pressure to release and press the upper portion of the spring outwardly must come from below, as will be evident.

The above operations are continued until all the balls in sight have been retrieved. To enable the player to ascertain whether he has retrieved all the balls shown—assuming he knows the initial number—I may provide the tube to one side of the slot with numbers as at 12 reading from the bottom up and spaced corresponding to the diameter or the spacing of the balls in the tube. Even without such numbers, the balls are readily visible through the slot 2 and counting of the same with the bands 4 as gauge marks becomes an easy matter. When it is desired to again use the balls the cap is removed by springing in the adjacent portion of the tube 1 with the hand, and the tube is then inverted to permit the balls to roll out one by one and onto the ground, as shown in Fig. 2.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:

1. A ball retrieving device comprising a ball retaining receptacle having a bottom opening to be engaged with and of a size to pass over a ball, means mounted in the device adjacent the opening to engage a ball which has passed through the opening to prevent retractive movement of said ball and further ball engaging means in the device beyond said first named means to subsequently support a ball after it has been advanced beyond said first named means to hold such ball from pressing against another ball subsequently passed through the opening and engaged by said first named means.

2. A ball retrieving device comprising an open ended tube having an interior diameter greater than the diameter of a ball, means in the tube adjacent one end to yieldably resist movement of a ball into said end and preventing retractive movement of the ball of its own weight after it has been thus moved, and further means in the tube beyond said first named means to support the ball after it has been advanced into the tube a sufficient distance to hold it from pressing contact with a ball subsequently entering the tube and engaged by said first named means.

3. A ball retrieving device comprising an open ended tube having an interior diameter greater than the diameter of a ball, a spring element fastened in the tube on one side and adjacent one end, said element, in the immediate vicinity of said end, projecting transversely of the tube toward the opposite side thereof to a point spaced from said opposite side a distance less than the diameter of a ball, so as to prevent retractive movement of the ball after it has once moved along the tube past the element, and an extension formed with said element and projecting inwardly and lengthwise of the tube from the point of fastening of the element in the direction away from the adjacent end of the tube to a termination spaced from the opposite side of the tube a distance less than the diameter of a ball.

4. A ball retrieving and retaining device comprising an open ended tube having an interior diameter greater than that of a ball, means in the tube adjacent one end to prevent retractive movement of a ball due to its weight after it has been received in said end while permitting movement of the ball toward the opposite end of the tube, and movable means at said opposite end of the tube normally preventing discharge of balls from such end.

5. A ball retrieving and retaining device comprising an open ended tube having an interior diameter greater than that of a ball, means in the tube adjacent one end to prevent retractive movement of a ball due to its weight after it has been received in said end while permitting movement of the ball toward the opposite end of the tube, said tube being split lengthwise from said opposite end toward said one end and being expandingly resilient whereby it tends to enlarge from its predetermined diameter, and a cap removably mounted over said opposite end of the tube and acting to hold the tube to its predetermined diameter; the resiliency of the tube yieldably holding the cap against removal.

IAN MACDONALD.