June 4, 1940. I. MACDONALD 2,203,170

BALL RETRIEVER

Filed Nov. 13, 1939

Fig. 1

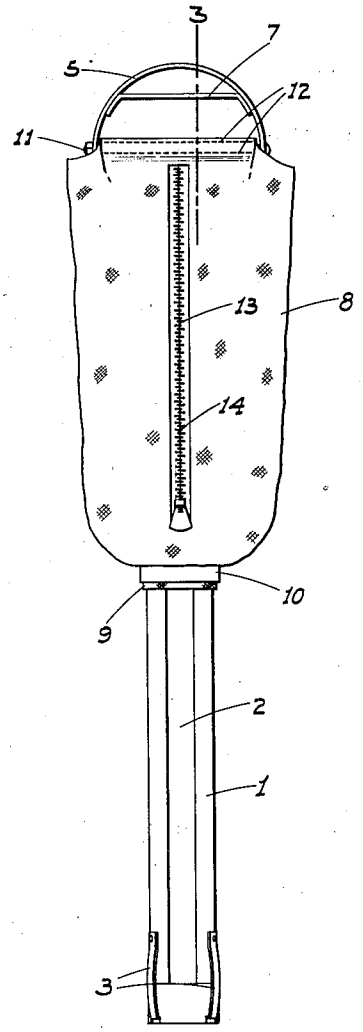


Fig. 2

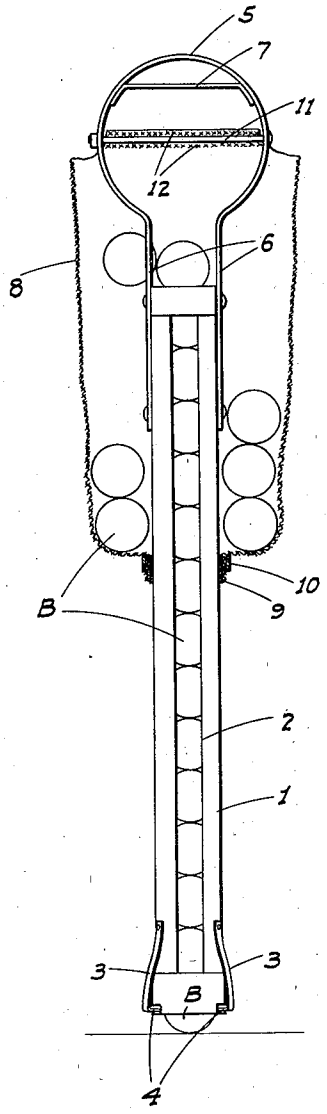
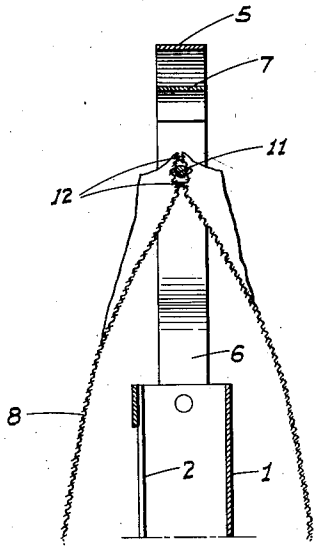


Fig. 3



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BALL RETRIEVER

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6 Claims. (Cl. 294—19)

The present invention relates to a ball retriever, and particularly for retrieving golf balls from the ground when a relatively large number thereof are used as is often done for practice; the invention being an improvement over the ball retriever shown in my United States Letters Patent No. 2,027,546, dated January 14, 1936.

The principal object of the invention is to provide a ball retriever including, in addition to the effective and desirable features of the device shown in the above identified issued patent, a novel sack arrangement to substantially increase the ball carrying capacity of the retriever without increasing its height and without any material increase in weight.

Another object of the invention is to arrange the device so that all of the golf balls retrieved, whether remaining in the central tube or deposited in the surrounding sack, may be retained in the device irrespective of the position thereof, or may be discharged onto the ground by merely opening a side closure in the sack and inverting said device.

A further object of the invention is to produce a simple, convenient to carry and use, 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 drawing similar characters of reference indicate corresponding parts in the several views:

Figure 1 is an elevation of the device as ready for use.

Figure 2 is an enlarged sectional elevation of the device, as in operation.

Figure 3 is an enlarged fragmentary transverse section on line 3—3 of Fig. 1.

Referring now more particularly to the characters of reference on the drawing, the device comprises a metallic tube 1 of substantial length having a longitudinal slot 2 and having an inside diameter only slightly greater than the diameter of the balls B adapted to be received in the tube. At its lower end the tube 1 is provided with an assembly which permits balls to pass into the tube from its lower end but prevents their escape therefrom. This assembly is constructed in the same manner as in my above identified issued patent, and includes a plurality of longitudinally extending leaf springs 3 spaced circumferentially of the tube and formed with inturned ball engaging fingers 4 on their lower ends which normally project part way across the tube at its lower end.

A substantially circular bail 5 is disposed in upstanding relation above the upper end of the tube; such bail being fixed rigid with said tube by means of a pair of spaced, parallel legs 6 which depend from the bail and are secured in any suitable manner on the sides of the tube at its upper end and so that slot 2 is centrally therebetween. A horizontal cross member 7 extends within and across the bail above the center thereof and with the portion of the bail thereabove, forms a convenient handle.

A sack 8 of light canvas or the like surrounds the upper portion of the tube and extends above the same to a point substantially midway of the height of the bail. The cross sectional area of the sack when extended is such relative to the diameter of the tube as to be sufficient to receive balls all about the tube.

At its lower end, the sack is contracted closely about the tube as at 9, such contracted portion being clamped against movement by suitable means such as a band 10. At its upper end, the opposite sides of the sack are brought together between the opposite sides of the bail and are sewed together as indicated at 12 both above and below a bail-mounted cross rod 11 disposed parallel to and well below member 7.

In line with and in front of the tube slot 2, the sack is slit practically from top to bottom as indicated at 13, the slit being normally closed by a slide fastener 14 of conventional form sewed on the sleeve along the sides of the slit. Opening of the fastener therefore enables the sides of the slit to spread apart sufficiently for the rapid discharge of the balls from the sack as well as from the tube when the device is inverted.

The slit in the sack being on the same side of the device as the slot in the tube, cleaning of the latter, or straightening out of any dents therein when necessary, is facilitated.

In use, a person first closes the fastener, grasps the bail and cross member 7 and retrieves golf balls from the ground by pressing the device downward thereonto; the balls passing the entry and checking assembly at the lower end of the tube 1 and piling up as a vertical column therein. When the tube 1 is full and others are forced into it, the balls at the top of the column begin to spill over the top of the tube and thence fall into the surrounding sack 8, where they come to rest about the tube in orderly fashion.

As the sack is always closed above the upper end of tube 1, the balls spilling from the latter cannot accidentally escape the device and must fall into said sack.

When the device is full of balls, they may be retained from falling out as long as desired and regardless of the position of the device, as will be obvious. When it is desired to discharge the balls, it is only necessary to open the slide fastener and invert the device, whereupon the balls in the sack as well as the retriever tube roll onto the ground.

The sack being sewed in connection with cross rod 11 in a manner to prevent either up or down movement of the sack, there is no danger of the sack shifting up by the weight of the balls when the device is inverted, or of any balls becoming caught between the rod and the top of the sack.

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. In a ball retriever which includes an upstanding ball receiving tube and a ball receiving and checking assembly at the lower end of the tube; a sack surrounding the tube adjacent its upper end and depending some distance below said end, the sack being closed at its lower end about the tube and being provided with a normally closed discharge opening for balls.

2. A device as in claim 1 in which the cross-sectional area of the sack relative to the diameter of the tube is such that balls discharged into the sack may entirely surround the tube.

3. In a ball retriever including an upstanding ball receiving tube, a ball entry and checking assembly on the lower end of the tube and a bail rigid with and upstanding from the tube; a ball receiving sack surrounding the upper portion of the tube in spaced relation thereto and closed at its lower end about the tube, and means suspending the sack from the bail a predetermined distance above the tube; the sack having a normally closed opening for the discharge of balls from the sack and tube.

4. In a ball retriever including an upstanding ball receiving tube, a ball entry and checking assembly on the lower end of the tube and a bail rigid with and upstanding from the tube; a ball receiving sack surrounding the upper portion of the tube in spaced relation thereto and closed at its lower end about the tube, the sack being of flexible fabric, a cross rod supported by the bail, the opposite sides of the sack being sewed together above and below the rod in close relation thereto, and the sack being slit down one of said sides below the sewing and closure means normally holding the slit closed.

5. In a ball retriever which includes an upstanding ball receiving tube and a ball receiving and checking assembly at the lower end of the tube; a normally closed ball receiving container mounted in connection with the tube and arranged to receive a plurality of balls discharged from the upper end of the tube, the container having a ball discharge outlet, and means normally closing the outlet.

6. In a ball retriever which includes an upstanding ball receiving tube and a ball receiving and checking assembly at the lower end of the tube; a sack of flexible material mounted in fixed and surrounding relation with the tube to receive balls discharged from the upper end of the tube, the sack being closed at top and bottom and having a slit extending upwardly in one side from adjacent the bottom to provide an outlet for the balls and closure means normally holding the slit closed.

IAN MACDONALD.