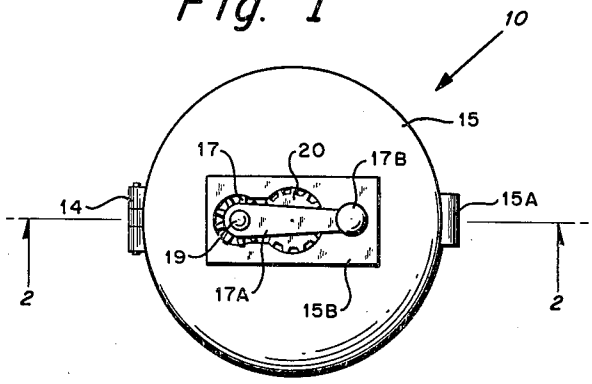
Oct. 31, 1961 B. I. HOFFECKER 3,006,009

PORTABLE ROTARY GOLF BALL CLEANER

Filed Feb. 18, 1959

Fig. 1



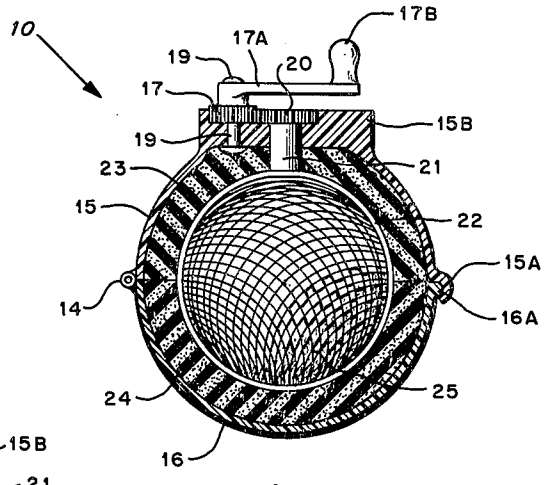


Fig. 2

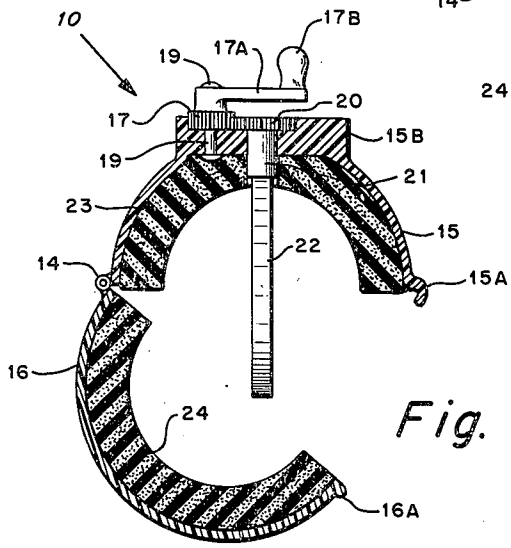


Fig. 3

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3,006,009

Patented Oct. 31, 1961

3,006,009

PORTABLE ROTARY GOLF BALL CLEANER

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Filed Feb. 18, 1959, Ser. No. 794,022
7 Claims. (Cl. 15—97)

This invention relates to the cleaning of gold balls. More particularly, it relates to an apparatus adapted to be easily carried by a golfer, caddy, or other person, whereby golf balls may be quickly and easily cleaned.

It is well known that a golf ball rapidly becomes discolored and soiled during use. Quite commonly, the ball becomes grass stained or muddied. As is well known, many golf courses provide golf ball cleaning stands on their premises. However, it is often the case, depending on the particular golf course considered, that such stands may be very infrequent, being provided only at the first tee or at several tees throughout the course. In addition, it often happens that even such stands as are provided are not properly maintained, so that their cleaning function is impaired. Because of the great number of golfers using any particular stand, even when careful maintenance is attempted, the water in the cleaning mechanism is often rapidly dirtied or exhausted.

Furthermore, even if cleaning stands are plentiful on the course and are carefully maintained, it frequently happens that one stroke of the ball will result in soiling it sufficiently to lower its usefulness, so that even the existence of a cleaner at the next tee does not fully serve the interests of the golfer. As a result, the golfer either plays one or more strokes with a dirty ball, which results in distracting his attention, possibly affecting the flight or roll of the ball, and increasing the possibility of a lost ball, or he switches to another ball. This latter course is inconvenient.

It is believed that portable cleaners have been proposed heretofore, but the portable rotary golf ball cleaner of this invention is an improvement thereon, obviating many of the former difficulties.

It is an object of this invention to provide a portable golf ball cleaner.

It is an object of this invention to provide a small, light, rotary, cleaner for golf balls.

It is another object of this invention to provide a portable cleaner for golf balls, which cleans the balls by a rotary motion imparted by a hand crank.

Yet another object of this invention is to provide a portable rotary golf ball cleaner comprising a ball clip, manual rotating means, spherically disposed sponge means, all contained within an openable case.

Other objects and aims of this invention are made apparent in the following specification and claims.

The invention is best understood in connection with the accompanying drawings, in which like numerals refer to like parts, and in which:

FIGURE 1 is a top view of the cleaner,

FIGURE 2 is an elevation view, partially in cross-section, taken along line 2—2 of FIGURE 1, and

FIGURE 3 is an elevation view, partially in cross-section, taken along line 2—2 of FIGURE 1, wherein the ball holding means has been rotated 90 degrees from the position shown in FIGURE 2.

The golf ball cleaner, generally designated at **10**, is of a generally spherical shape. The outer covering or case of the cleaner consists of an upper case **15** and a lower case **16**. Each of these case sections is generally hemispherical in shape. The exceptions to this general configuration are explained below.

The two case sections, **15** and **16**, are hinged together by hinge **14**. A latching means is provided to hold the two case sections firmly together when desired. In the

illustrated embodiment, this latching means consists of a hook portion **15A** on the upper case **15** at a point along the closing line diametrically opposite the hinge **14**, and a lug **16A** on the lower case **16** along the closing line at a point diametrically opposite hinge **14**. When the case sections are pivoted together around hinge **14**, lug **16A** engages hook **15A** and is removably held there by the elastic or spring action of the case material.

The interior of each case section is lined with a resilient cleaning material. The lower case section **16** is lined with a resilient cleaning material **24** which in itself has a hemispherical shape following the general configuration of the case section. The upper case section **15** has a similar lining of cleaning material **23** which also follows its configuration, with an exception described below. In the embodiment illustrated, this resilient cleaning material consists of a sponge of relatively fine grain. In a preferred type of sponge is one made of synthetic plastic. The sponge is preferably removable from the casing for a replacement when worn.

The golf ball cleaner is equipped with holding means for the golf ball to be cleaned. This means comprises a clip **22** which grips the golf ball firmly when the ball is forced into the clip. The clip is so configured that it deforms slightly when the golf ball is forced into it and the ball is held by reason of the clip's elasticity which tends to press tightly against the ball's surface.

The clip **22** is preferably made of a thin strip of metal, preferably a non-corrosive metal such as stainless steel, which has been bent into a loop. For the best gripping action, the loop defined by clip **22** would not be quite circular, so that when ball **25** is forced into it, the loop is slightly deformed into a circular shape and thus grips the ball tightly. It is understood that even if the clip **22** is not non-circular, a gripping effect is obtained merely by having the internal diameter of the clip equal the external diameter of the golf ball. Since American golf balls are of standard dimensions, the cleaner would be applicable to all such balls.

Means for rotating the clip, and its contained golf ball, are provided. These means comprise a turning block **15B** on the top of upper case section **15**, which contains the rotating mechanism. The rotating mechanism includes a holder shaft **21** extending vertically through the turning block **15B**. A spur gear **20** is provided at the upper end of shaft **21**.

The spur gear **20** meshes with a driving gear **17**, which is also mounted in the turning block **15B**, as shown. The driving gear **17** is rotatably mounted on turning block **15** by means of pin **19**. A crank handle **17A** is attached to driving gear **17**. In the illustrated embodiment, the pin **19** is shown extending through gear **17** and the end of crank **17A**.

In use, the resilient cleaning material inside the casings are wet with water and a cleaning agent, such as a good detergent, as is well known. Of course, it is within the scope of this invention to wet the resilient cleaning material **23**, **24** with any cleaning agent, whether containing water or not. Usually, a non-foaming detergent, as is commercially available, mixed with water, is satisfactory. The golf ball to be cleaned is inserted into the clip **22**, and the golf ball cleaner is closed, and latched into position by the interaction of latch members **15A** and **16A**. The crank handle **17A** is then rotated, which in turn spins the ball inside the cleaner and scrubs its surface clean. After opening the unit, the golf ball is removed and is ready for use. Once having added the cleaning agent to the sponge or other resilient cleaning material it may be used to clean many golf balls before renewal or rinsing is required.

By providing a gear train as shown as part of the rotating means, the torque exerted on the ball may be in-

creased, so that a ball which may be coated with gummy substances can be rotated with a minimum amount of manual effort. In addition, the use of a reduction gear, as shown in the drawings, permits closer tolerances of the sponge against the ball without requiring undue manual effort. The gears may of course be made of any suitable material, such as stamped metal or plastic fiber. It is also possible to eliminate the gear train and rotate shaft **21** directly from a crank. Such an embodiment would be operative, although the gear drive is preferred for the reasons given above.

The crank handle **17A** may take many different forms within the scope of this invention. For example, it may be provided with a fold-down grasping knob, instead of the raised grasping knob **17B**. The provision of a folding knob would, of course, reduce the possibility of snagging.

The clip **22** is shown as a separate member from shaft **21**, although it is possible to manufacture the clip and shaft as an integral unit. A preferred material for the casings **15** and **16** is molded plastic. As shown, the upper case **15** is integral with its latch member **15A**, its part of the hinge **14**, and the turning block **15B**. The lower case member **16** is integral with its latch member **16A** and its part of the hinge **14**. This structure is preferred, although any of the parts can be made integral or separate.

There are a great variety of suitable materials available both for the case and for the sponge or other resilient cleaning means. The well known tough fine-grained plastic sponges are very satisfactory because of their good absorbency and their shape-retaining qualities.

The unit herein described performs the functions of known golf ball cleaners, with the advantage of being relatively extremely small, light, and compact. It may be carried in the user's pocket or in a golf bag pouch. By providing cleaning surfaces bearing around the entire circumference of the golf ball, a much more efficient cleaning action is obtained than is usually the case with known golf ball cleaners. Therefore, less motion is required to thoroughly clean the ball. Also, the holding means covers a very small area of the ball surface, thus permitting much better cleaning. The unit itself is attractive in appearance, being suggestive of the shape of a golf ball. Its exterior surface may of course be decorated so as to resemble a golf ball. Any known type of exterior attaching means may be provided if desired. Various structural modifications may be made without departing from the spirit of the invention. For example, bushings may be provided around the shafts or pins if desired.

The scope of this invention is to be determined by the appended claims and is not to be limited by the foregoing description and drawings, which are intended to be illustrative and not limiting.

I claim:

1. A portable rotary golf ball cleaner comprising a hinged openable substantially spherical case having latching means, a holding means inside said case and adapted to firmly grip a golf ball inserted therein, said holding means being rotatable relative to said case, resilient cleaning material lining the inside of said case and contacting a golf ball when said ball is in said holding means, and means to rotate said holding means from outside said case.

2. A portable rotary golf ball cleaner comprising an openable hinged substantially spherical case having latching means, holding means inside said case and comprising a loop adapted to receive and firmly grip a golf ball around the entire circumference of said golf ball, said holding means being rotatable relative to said case, resilient cleaning material lining the inside of said case, and means to rotate said holding means from outside said case.

3. A portable rotary golf ball cleaner as defined in claim 2 wherein said rotating means is mounted on said case and comprises a manually operable rotatable crank connected to said holding means.

4. A portable rotary golf ball cleaner as defined in claim 3 wherein said rotating means includes a set of gears between and connected to said crank and said holding means.

5. A portable rotary golf ball cleaner as defined in claim 4 wherein said holding means loop has a configuration and diameter approximating that of a golf ball and comprises a thin resilient strip.

6. A portable rotary golf ball cleaner as defined in claim 5 wherein said resilient cleaning material comprises a layer of sponge, said layer defining at least the major part of the surface of an approximate sphere having a circumference at least as small as that of a golf ball.

7. A portable rotary golf ball cleaner as defined in claim 6 wherein said sponge is moistened with a detergent.

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