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GOLF BALL CLEANER

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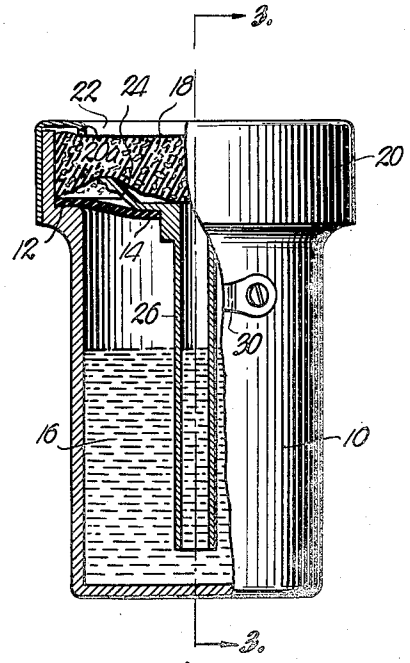


Fig. 1.

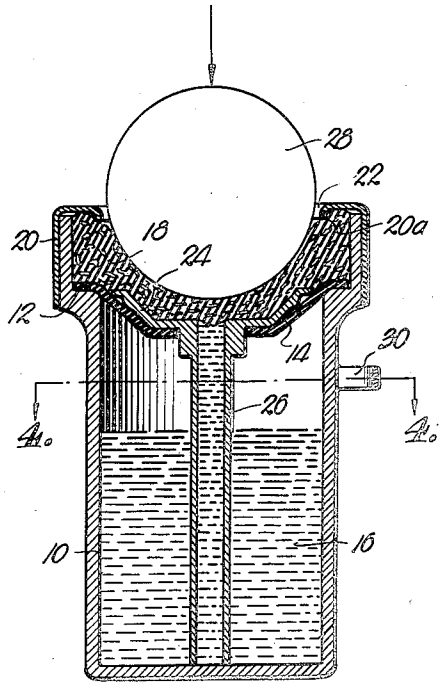


Fig. 3.

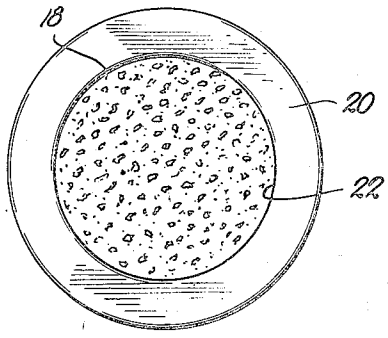


Fig. 2.

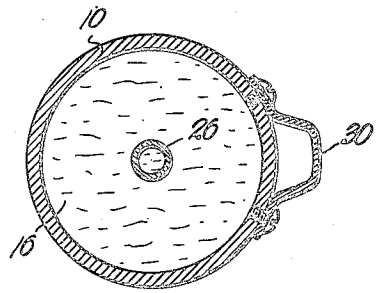


Fig. 4.

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GOLF BALL CLEANER

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2 Claims. (Cl. 15—136)

1

The present invention relates in general to the cleaning of golf balls, and it deals more particularly with golf ball cleaners of the portable type.

Broadly speaking, it is the object of our invention to provide a golf ball cleaning device which is compact and light in weight so that it may easily be carried by a player for use from time to time in the course of the game; and which is simple and economical in construction, yet sturdy, trouble-free and efficient in operation.

More particularly, it is an object of the invention to provide a device of the character indicated having a scrubbing medium against which the soiled ball may be rubbed and means for automatically introducing water or a suitable cleaning fluid onto the scrubbing medium to facilitate the removal of the soil.

With these objectives in view, our invention resides in the provision of a unitary device having a relatively closed reservoir for water or the desired liquid cleaning agent, a sponge or the like normally maintained out of contact with the liquid, but exposed in order to permit rubbing the ball thereagainst, and means for automatically transferring a suitable amount of liquid from the reservoir onto the sponge when a ball is pressed thereagainst.

Other objects of the invention, together with the features of novelty whereby the objects are achieved, will appear in the course of the following description.

In the accompanying drawings which form a part of the specification and are to be read in conjunction therewith, and in which like reference numerals are employed to identify like parts in the various views:

Fig. 1 is a side elevational view of our golf ball cleaner with the parts thereof in normal position, a portion of the side wall of the container having been broken away for purposes of illustration,

Fig. 2 is a plan view of the cleaning device,

Fig. 3 is a vertical cross section taken along the line 3—3 of Fig. 1 in the direction of the arrows, and showing the position of parts during the golf ball cleaning operation, and

Fig. 4 is a horizontal cross section taken along the line 4—4 of Fig. 3 in the direction of the arrows.

Referring more particularly to the drawings, our device comprises a vertically elongated cup 10, the upper end of which is enlarged so there is an offset or annular shoulder 12 formed in the inner wall a short distance below the rim of the cup. On this shoulder or ledge rests the marginal portion of a circular diaphragm 14 made of flexible material such as rubber.

2

The space below the diaphragm comprises a reservoir 16 for water or other suitable cleaning fluid, while above the diaphragm there is a generally disk-shaped sponge 18 held in place by the cap 20. As shown, the cap closely embraces the enlarged upper portion of cup 10 and extends inwardly over the rim thereof to overlie the marginal portion of the sponge; however, the cap has a large central opening 22 through which the central area of the sponge is exposed, and around the margin of this opening the cap has a downturned annular flange 20a which serves to strengthen the cap and at the same time conceals the raw edge.

The cup 10 and cap 20 may be made of metal or may be molded of resinous plastic material. Preferably the cap is formed to fit sufficiently tightly on the cup to be held in place by friction alone, as shown. If desired, however, it obviously can be provided with internal screw threads and the upper end of the cup provided with external threads so that the two are screwed together. Alternatively, if the parts are of metal they may be secured by brazing, or if they are of plastic, they can be cemented together; but we prefer that the two parts be separable to facilitate cleaning.

Between the sponge 18 and the diaphragm 14 there is an upwardly dished rigid concavo-convex disk 24 which communicates at its center with the bore of an integral tube or hollow stem 26 extending downwardly through a central aperture in the diaphragm and terminating a short distance above the bottom of the cup (see Fig. 1).

The operation of our device will be fairly obvious from the drawings and the foregoing description. The water compartment or cleaning fluid reservoir 16 first is partially filled as shown, which may be accomplished simply by pouring the liquid through opening 22 whereupon it will pass through sponge 18 into the upwardly dished element 24 which, with the attached tube 26, acts as a funnel directing the liquid into the reservoir.

When it is desired to clean a golf ball 28, the ball is pressed against the sponge through opening 22 and rotated. As indicated in Fig. 3, this deflects the diaphragm 14 downwardly and consequently somewhat compresses the air above the surface of the liquid in the reservoir so that the liquid is forced by the increased air pressure upwardly in hollow stem 26, moistening the sponge. The water or cleaning agent in the sponge is

transferred to the surface of the ball and facilitates the cleaning action occasioned by rubbing of the ball against the sponge.

Downward travel of the stem 26 is limited by the abutment of its lower end against the bottom of the cup (see Fig. 3) making it impossible for the golfer to overstress and injure the diaphragm or sponge by exerting too great downward pressure on the ball; at the same time, this arrangement affords him a solid backing against which the thrust on the ball may be exerted to increase the scouring action.

As previously suggested, we prefer to make cap 20 removable from the cup 10 to facilitate disassembly of the parts for cleaning. However, it is not absolutely essential that the cap be removable because, due to its inherent flexibility, sponge 18 can be compressed inwardly and withdrawn through opening 22; if this is done, the cup-shaped element 24 next may be withdrawn through the same opening (being slightly smaller in diameter than the opening) and the flexible diaphragm 14 then can be removed in like fashion. After cleaning, the parts obviously may be restored to place by passing them through the opening 22 in reverse order.

The construction shown provides a reservoir of relatively large capacity for the water or cleaning fluid, so that frequent replenishment is not required. The liquid will not leak from the reservoir, however, even if the unit is accidentally inverted or laid on its side. For convenience in carrying and handling the device, we provide on the wall of the cup a U-shaped member 30 to which a spring clip may be hooked or under which a strap may be passed to permit attaching the device to the player's golf bag.

From the foregoing it will be seen that our invention is well adapted to attain all of the ends and objects hereinbefore set forth, together with other advantages which are obvious and which are inherent to the structure.

It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the appended claims.

Inasmuch as various possible modifications of the invention may be made without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described our invention, we claim:

1. In a golf ball cleaner, a vertically elongated cup having an annular ledge around the interior of the cup intermediate its top and bottom, a centrally apertured flexible diaphragm having its margin resting on said ledge, a rigid centrally apertured concavo-convex disk resting on said diaphragm with its concave side facing upwardly, a rigid upright tube having its upper end secured to said disk so the bore of the tube is in open communication with the concave side thereof through the aperture in said disk, said tube extending downwardly from the disk through the central aperture in said diaphragm and terminating above the bottom of the cup, a sponge substantially filling the portion of the cup above said disk, and an annular lip extending inwardly from the rim of the cup and overlying the marginal portion of said sponge thereby to retain the sponge in the cup while leaving the central area of the sponge uncovered.

2. A golf ball cleaner as in claim 1 wherein the diameter of said disk is smaller than the diameter of the central opening within said annular lip.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
Re. 8,241	Overbaugh	May 21, 1878
986,926	Mahler	Mar. 14, 1911
1,243,967	Nielsen	Oct. 23, 1917
1,658,845	Hinds	Feb. 14, 1928
1,710,816	Evans	Apr. 30, 1929
2,481,803	Weaver	Sept. 13, 1949