United States Patent [19]

MacConnell

[11] **3,750,219**

[45] **Aug. 7, 1973**

[54] **PORTABLE GOLF BALL CLEANING DEVICE**

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[22] Filed: **Jan. 28, 1972**

[21] Appl. No.: **221,616**

[52] **U.S. Cl.** ..... **15/118,** 15/21 A, 15/244 R, 401/13

[51] **Int. Cl.** **A63b 57/00**

[58] **Field of Search** ..... 15/104.94, 104.92, 15/104.93, 105, 160, 210 R, 244 R, 21 A, 118; 220/39 R, 40 S; 206/1.5, 2, 37 R; 215/37 R, 38 B, 51, 80; 401/196, 48, 11, 13

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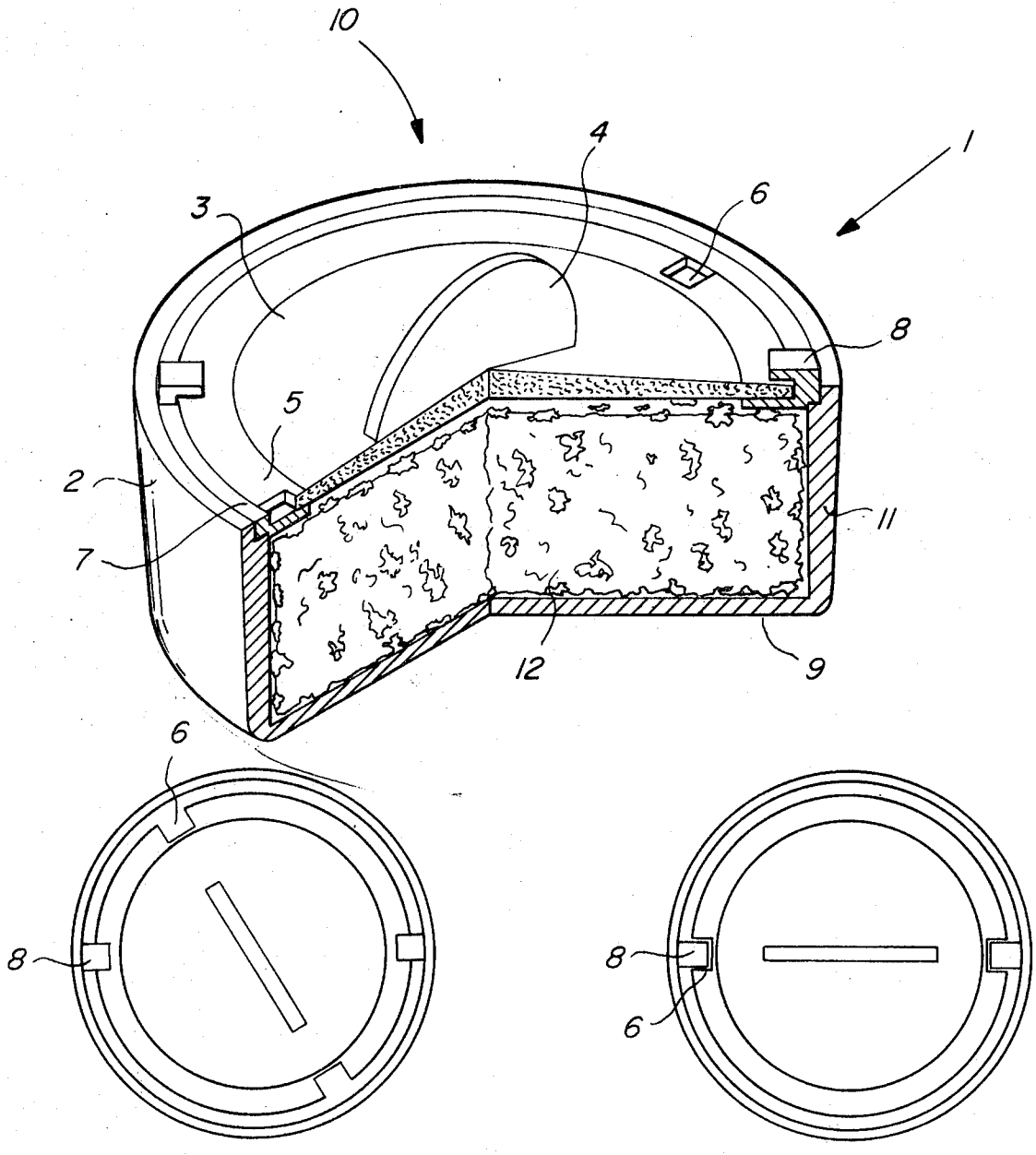
Primary Examiner—Leon G. Machlin

Attorney—Fred L. Denson et al.

[57] **ABSTRACT**

An improved portable golf ball cleaning device is described. The device comprises a canister, a cover and a cleansing material situated within the canister. When the cover is seated in place, the cover and canister are designed to provide a liquid and vapor tight seal thereby preventing loss of cleaning liquid from within the canister. The device is designed to conveniently fit within the pocket of the user.

10 Claims, 10 Drawing Figures



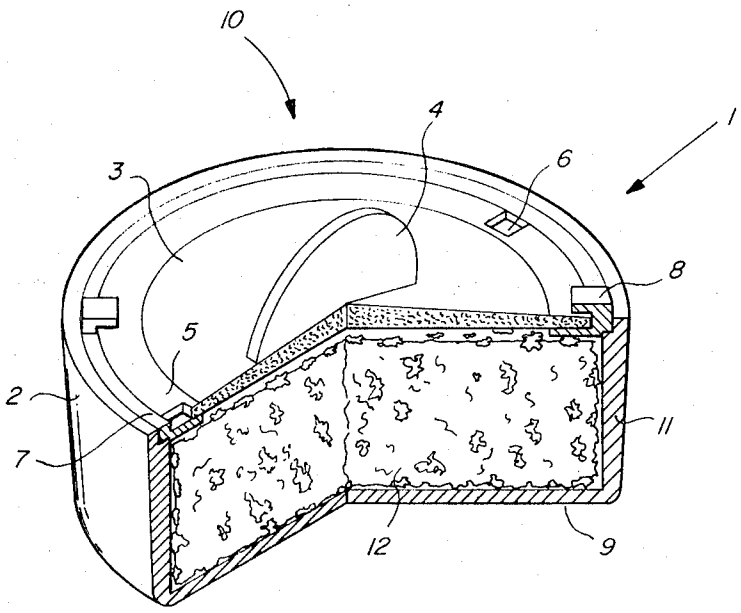


FIG. 1a

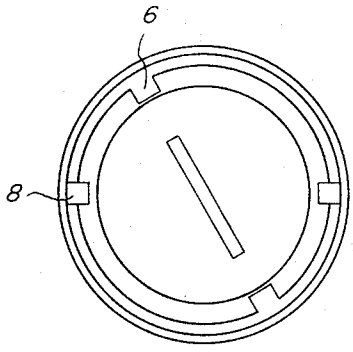


FIG. 1b

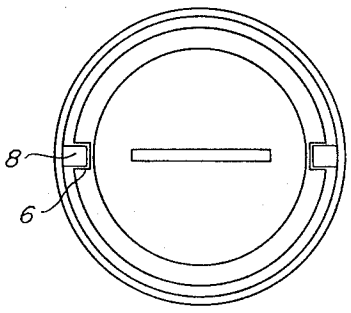


FIG. 1c

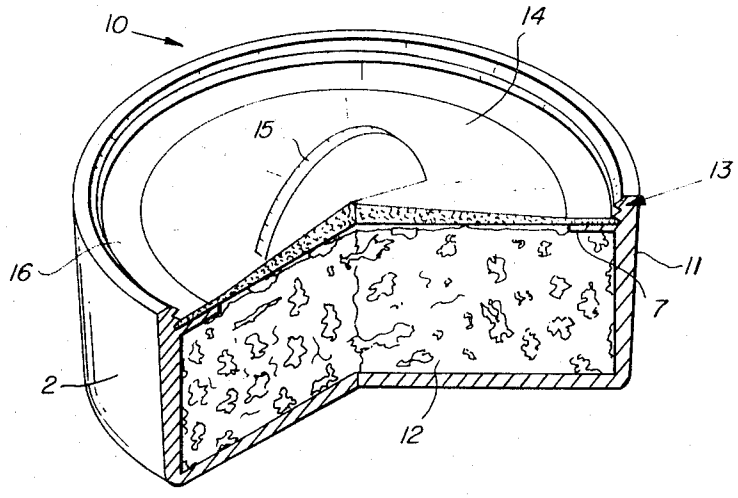


FIG. 2

FIG. 3

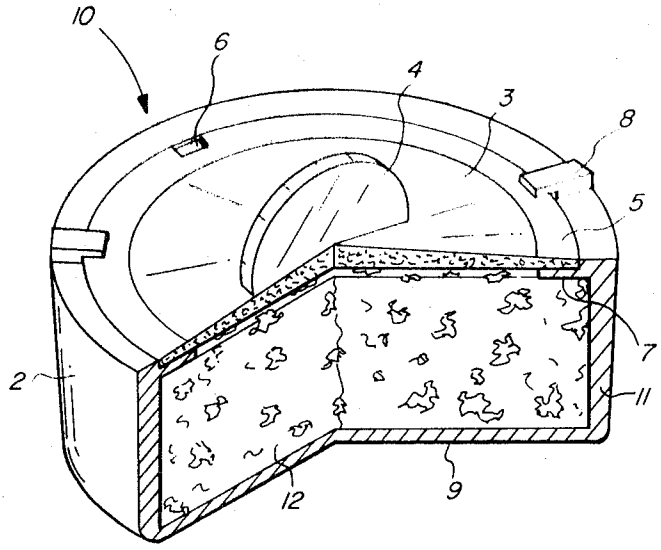


FIG. 4a

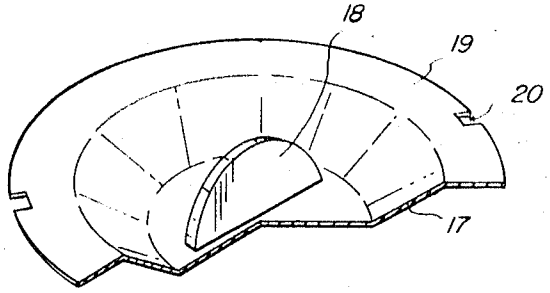


FIG. 4b

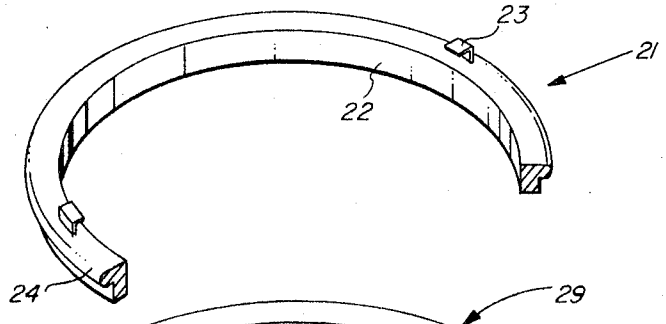


FIG. 4c

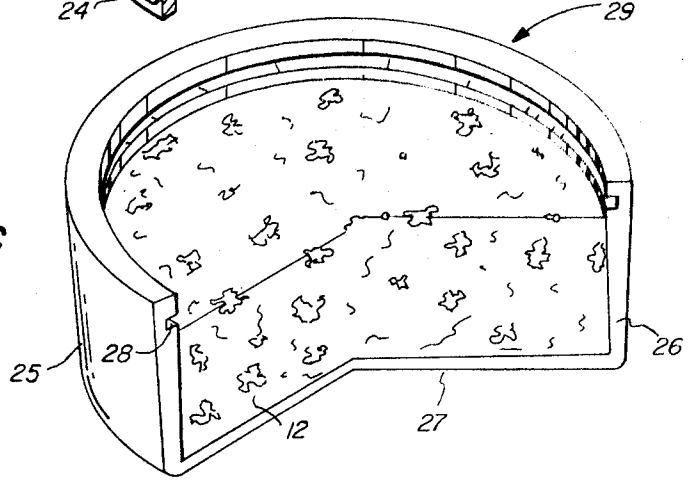
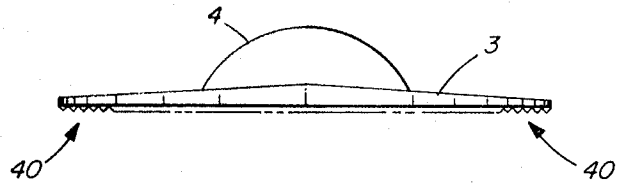


FIG. 5



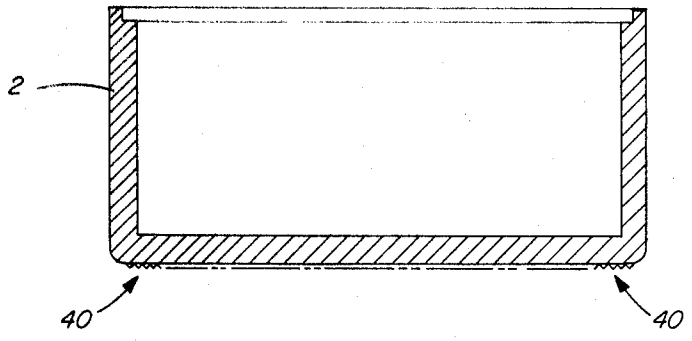


FIG. 6

PORTABLE GOLF BALL CLEANING DEVICE

This invention relates to an improved portable golf ball cleaning device.

When golfing, it is often desirable to maintain the surface of a golf ball clean of dirt, stains and other foreign substances. The removal of such matter from the surface of the ball is necessary to insure its true flight when struck with a club, i.e. to prevent the ball from hooking or slicing. On occasion even the best golfers lose balls in shrubs and underbush. Under these circumstances, a clean ball is much easier to find than a green ball. Also, when driving for distance, a clean ball travels farther than a dirty ball.

Many golf courses have washing facilities near the tees. Frequently, these washing facilities are inoperable. Moreover, there is no method for washing or cleaning the surface of the ball between tee shots, i.e. after the initial drive, no facilities are available for cleaning on the fairways between greens. Less sophisticated golf courses do not have any cleaning devices whatsoever.

Better golfers recognize the importance of a clean golf ball and frequently use various devices for cleaning their balls while in play. Most devices are relatively large and bulky and are either carried in or attached to the golf bag. Few are available which can be carried on the person e.g. in the pocket, attached to the belt or otherwise. Generally golf ball cleaning devices which can be carried in the pocket are not large enough to provide a sufficient surface for thoroughly cleaning the ball. It is frequently difficult to provide liquid tight seals for pocket cleaners to prevent cleaning liquids such as water from wetting the pocket of the carrier. When volatile solvents are used as the cleaning liquid, the pocket devices must be airtight as well as liquid tight. Most portable ball cleaning devices consist of a cleaning material such as a sponge positioned within a container. Frequently, difficulties are encountered in removing the cover from the container. Depending on the method of fitting of the cover to the container the cover may suddenly spring open when its removal is attempted instead of gradually opening. Sudden openings of this type frequently cause the cleaning liquid within the container to spill onto the person of the user.

It is desirable for pocket cleaners to have a tight efficient seal between the cover and the container to insure that liquid does not leak from the container and wet the pocket of the user as explained previously. Presently used cleaners do not provide seals which function efficiently. Replacement of the cover on the container and replacement of a cleaning means within the container is inconvenient and difficult for many of the presently used cleaners. Thus, there exists a need for a pocket golf ball cleaning device which has none of the problems associated with the pocket cleaners of the prior art.

It is an object of this invention to provide an improved golf ball cleaning device.

It is another object of this invention to provide an improved golf ball cleaning device suitable for carrying on the person.

It is still another object of this invention to provide an improved pocket golf ball cleaning device having an easily removable cover.

It is a further object of this invention to provide an improved golf ball cleaning device suitable for containing volatile liquid cleaners.

It is also an object of this invention to provide an improved golf ball cleaning device with an abrasive surface designed to remove difficulty removable foreign substances.

A further object of this invention is to provide an improved portable golf ball cleaning device which is capable of providing an air tight seal to prevent evaporation of volatile liquids contained therein.

These and other objects of this invention are accomplished with an improved portable golf ball cleaning device having a cylindrical shaped canister and a cover for the canister. The canister has an open end and a closed end and is provided with a washer fixedly attached and circumferentially adjacent to the inner surface of the canister. The washer is positioned in close proximity to the open end and has an outside diameter approximately the same as the inside diameter of the canister. The inside diameter of the washer is large enough to allow for the passage of a golf ball therethrough. The width of the face or surface of the washer is sufficient to permit a liquid and airtight seal to be formed between the face of the washer and the flat surface of the outer rim of a cover for the canister. The cover has a flat circumferential portion comprising its outer rim. The surface of this outer rim is capable of forming a flush fit with the face of the aforementioned washer. The device is equiped with a fastening means for securing the cover to the canister. Cleaning means such as a sponge is positioned within the canister body. The novel construction arrangement of the parts hereof are shown in preferred form in the accompanying drawings.

FIG. 1A is an overall isomeric view with cutaway of the improved golf ball cleaning device of this invention.

FIG. 1B is a top view of the device of FIG. 1A with the cover in locked position.

FIG. 1C is a top view of the device of FIG. 1A with the cover in unlocked position.

FIG. 2 is another embodiment of the invention wherein the cover is screwed onto the device.

FIG. 3 is still another embodiment of the invention.

FIG. 4A is a concave cover useful with the canister of FIG. 4C.

FIG. 4B is a washer assembly useful with the canister of FIG. 4C.

FIG. 4C is a canister representing yet another embodiment of the invention.

FIG. 5 is a view of the inner surface of the cover.

FIG. 6 is a view of the closed end of the canister.

Referring now to FIG. 1A, improved golf ball cleaning device 1 contains canister 2 and cover 3 for the canister. The cover is designed to be readily removed and to form a liquid and airtight seal. The size of the cleaning device permits the user to conveniently carry it in his pocket or attach it to his belt. The canister and cover can be constructed of many known types of materials such as metals, plastics, etc.

Cover 3 has attached handle 4. The outer rim of the cover 5 is circumferentially flat and is designed to form a flush fit with the face of the washer 7 contained within the canister 2 as described below. Cover 3 also contains notches or slots 6 positioned in the circumferential rim of the cover. The notches or slots are utilized in conjunction with one type of fastening means for securing the cover to the canister as explained below.

Canister 2 is cylindrically shaped and contains closed end 9, open end 10 and wall 11. Contained within the

canister itself is cleaning means **12**, such as a sponge, scouring pad or other known cleaning material. Typically, the cleaning means **12** is wetted with a liquid such as water. Stronger cleaning solvents can be used where necessary or desirable. Even though such stronger solvents are typically very volatile, the novel construction of the golf ball cleaning device described herein prevents the escape of liquid or vapor from the device itself. Canister **2** also contains washer **7** which is fixedly attached and circumferentially adjacent to the inner surface of the canister wall **11**. Washer **7** can be fixed to the inside canister wall by any of several means including an adhesive, force fit, snap fit, shrink fit or manufactured as an integral part of the wall. The washer is positioned in close proximity to open end **10** of the canister and has an outside diameter which is approximately the same as the inside diameter of the canister since it is adjacent thereto. The washer has an inside diameter which is sufficient to allow for the passage of a golf ball therethrough. A pair of inwardly extended L shaped tongues **8** are situated on the peripheral rim of open end **10** of the canister. The L shaped tongues are shaped corresponding to notches **6** in the cover. As shown in FIG. 1C cover **3** is fastened securely to canister **2** by orienting the cover so that notches **6** of the cover are aligned with L shaped tongues **8** of the canister. The cover then is inserted into the canister by passing L shaped tongues through notches **6**. The outer flat rim of the cover is seated on the flat surface of the washer. As shown in FIG. 1B, after the cover is positioned it is given a half turn so that the notches are no longer aligned with the L shaped tongues. Once the cover is seated, the seal formed between the washer and the flat portion of the cover rim is of sufficient width to provide a very efficient seal against leakage of liquid or vapor from the canister itself.

FIG. **2** sets forth yet another embodiment of the invention. Cover **14** contains handle **15** and a flat circumferential rim **16** designed to be screwed when twisted. Cover **14** is designed to function in conjunction with canister **2** which contains washer **7** fixedly attached to the inner surface of the canister. As shown in the drawing, washer **7** and canister **2** are made as one integral unit. Also positioned within the canister is cleaning means **12**. Canister **2** contains screw threading **13** positioned on the inner surface of canister wall **11** between the open end **10** and the washer **7**. The screw threading permits cover **14** to be screwed inwardly onto the surface of washer **7** thus forming a tight seal between the flat outer rim of the cover and the washer face.

FIG. **3** is similar to FIG. 1A except washer **7** is formed as an integral part of canister **2** during manufacture.

FIGS. **4A**, **4B** and **4C** represent yet another embodiment of the invention. In FIG. **4A** cover **17** is shaped inwardly concave with respect to the canister body. The concave shape adds to the compactness of the device and makes it more suitable for fitting into the pocket of the user. Handle **18** is positioned within the concave section and therefore does not present a protruding appearance in the user's pocket. Cover **17** contains a flat circumferential portion **19** on its outer rim. This portion has two slots or notches **20** shaped and positioned to permit cover **17** to be passed over two L shaped tongues and be securely seated by imparting a half turn to the cover. Also, as explained previously, the flat outer rim **19** provides an effective seal when cover **17** is seated. Washer assembly **21** in FIG. **4B** contains washer **22**. Situated on the surface or face of washer **22** are two L shaped tongues which extend inwardly toward the center of the washer. These tongues are positioned in a manner such that notches **20** in cover **17** may conveniently allow for the passage therethrough of the tongues thus permitting the cover to be seated on the surface of the washer. Cover **17**, when given a half turn, becomes securely seated against the washer thereby providing an airtight and liquid tight seal. Washer assembly **21** also contains small rib **24** which extends circumferentially around the entire outer vertical wall of washer assembly **21**. The purpose of the rib is to provide a means for fastening or locking the entire washer assembly **21** within the canister as explained below.

In FIG. **4C** canister **25** contains closed end **27**, open end **29** and cylindrical walls **26**. The inner surface of wall **26** contains a small circumferential groove **28** which extends entirely around the inner surface of wall **26**. Groove **28** is positioned in close proximity to open end **29** and shaped in a complementary manner to accept rib **24**. Also, positioned within canister **25** is cleaning means **12**. Washer assembly **21** is secured within canister **25** by the insertion of circumferential rib **24** into circumferential groove **28** in "snap fit" fashion. Typically, rib **24** is less than 0.05 inch in height and less than 0.10 inch in width. Complimentary shaped groove **28** contains correspondingly similar dimensions. Frequently, it is desirable to bevel the upper portion of groove **28** to facilitate the insertion of rib **24** of the washer assembly **21**.

While the drawings set forth certain embodiments, there are several other embodiments which are suitable for the invention. Typically in FIG. **4**, for example, rib **24** and groove **28** may be removed thus providing a smooth surface for inside wall **26** of canister **25**. In this instance the washer assembly **21** may be inserted in "force fit" fashion into the inside of canister **25**. Alternatively, the entire washer assembly may be secured to the inner wall of the canister by use of an adhesive.

Frequently, the surface of the golf ball may contain substances which are very difficult to remove with cleaning means **12**. In order to remove foreign matter of this type as shown in FIGS. **5** and **6**, the inner surface of cover **3** or the outside of the closed end **9** of canister **2** may be provided with an abrasive surface **40** either by roughening of the surface during manufacture or by the addition of an abrasive material secured by an adhesive to the surface. The golf ball may then be rubbed on the abrasive surface to remove the foreign materials after which it may be subjected to the normal cleaning procedures set forth below.

In the operation of this invention, the user inserts a cleaning means such as a sponge which has been dampened generously with water or a conventional cleaning solvent. The sponge is placed within the canister and the cover is placed on the canister and secured by twisting or by any of the means set forth in the above embodiments. The cleaning device is then inserted into the user's pocket or attached to his belt. When cleaning is desired, the user merely removes the cover, contacts the surface of the golf ball with the surface of the cleaning means and conveniently replaces the cover.

It is readily apparent to those skilled in the art that the improved golf ball cleaning device described herein overcomes the problems presented by the prior art.

The cover is easily removable and replaceable. A tight seal is provided which will retain water as well as more volatile liquids and their vapors such as cleaning solvents. The user is not presented with the problem of a dampened pocket because of leakage from the container. The shape of the device particularly as described in the embodiment of the invention which encompasses a concave cover is very suitable for the user in that it fits readily into the pocket and creates no unsightly bumps in the clothing.

The invention has been described in detail with particular reference to certain preferred embodiments thereof, but it will be understood that variations and modifications can be effected within the spirit and scope of the invention.

I claim:

1. A portable golf ball cleaning device comprising a cylindrical shaped canister having an open end and a closed end, a washer fixedly attached and circumferentially adjacent to the inner surface of the cylindrical wall of said canister and positioned in close proximity to said open end having an outside diameter approximately the same as the inside diameter of said canister as measured from canister wall to canister wall and having an inside diameter sufficient to allow the passage of a golf ball therethrough thereby providing sufficient width to the face of said washer to permit a liquid tight seal to be formed between the face of said washer and the surface of the outer rim of a seated cover for said canister, a cover having a flat circumferential portion comprising an outer rim thereby providing a surface capable of forming a flush fit with the face of said washer, fastening means for said cover and cleaning means positioned within said canister.

2. The device as described in claim 1 wherein the inner surface of said canister is provided with a circumferential groove positioned in close proximity to said open end, the size of said groove being sufficient to accept the outer portion of said washer thereby providing a snap fit positioning for said washer.

3. The device as described in claim 1 wherein the fastening means comprises screw threading positioned on the inner surface of said canister between said open end and said washer whereby the cover can be screwed onto the surface of said washer.

4. The device as described in claim 1 wherein the cover is inwardly concave with respect to the canister.

5. The device as described in claim 1 wherein the interior surface of the cover is roughened thereby providing an abrasive area for additional cleansing of a golf ball surface.

6. The device as described in claim 1 wherein the exterior surface of the closed end of said canister is roughened thereby providing an abrasive area for additional cleansing of a golf ball surface.

7. The device as described in claim 1 wherein the cleaning means is a sponge.

8. The device as described in claim 1 wherein the fastening means for said cover comprises two inwardly extended L shaped tongues situated on the peripheral rim of the open end of said canister and the outer rim of said cover contains two slots complementally shaped with respect to said tongues and positioned for passage therethrough of said tongues.

9. A portable golf ball cleaning device comprising a cylindrical shaped canister having an open end and a closed end, a washer assembly comprising a washer and two L shaped tongues positioned on the face of said washer and extending inwardly from the outer periphery of said washer, said washer being fixedly attached and circumferentially adjacent to the inner surface of the cylindrical wall of said canister and positioned in close proximity to said open end having an outside diameter approximately the same as the inside diameter of said canister as measured from canister wall to canister wall and having an inside diameter sufficient to allow the passage of a golf ball therethrough providing sufficient width to the face of said washer to form a seal between said washer and the surface of the outer rim of a seated cover for said canister, a cover having a flat circumferential portion comprising an outer rim of said cover, said outer rim having two slots complementally shaped with respect to said tongues and positioned for passage therethrough of said tongues whereby said cover is fastened by positioning it in contact with the surface of said washer and turning the cover causing the rim of said lid to be positioned under said L shaped tongues.

10. The device as described in claim 9 wherein the inner surface of said canister is provided with a circumferential groove positioned in close proximity to said open end, the size of said groove being sufficient to accept the outer portion of said washer thereby providing a snap fit positioning for said washer assembly.

* * * * *