

July 17, 1962

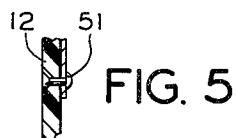
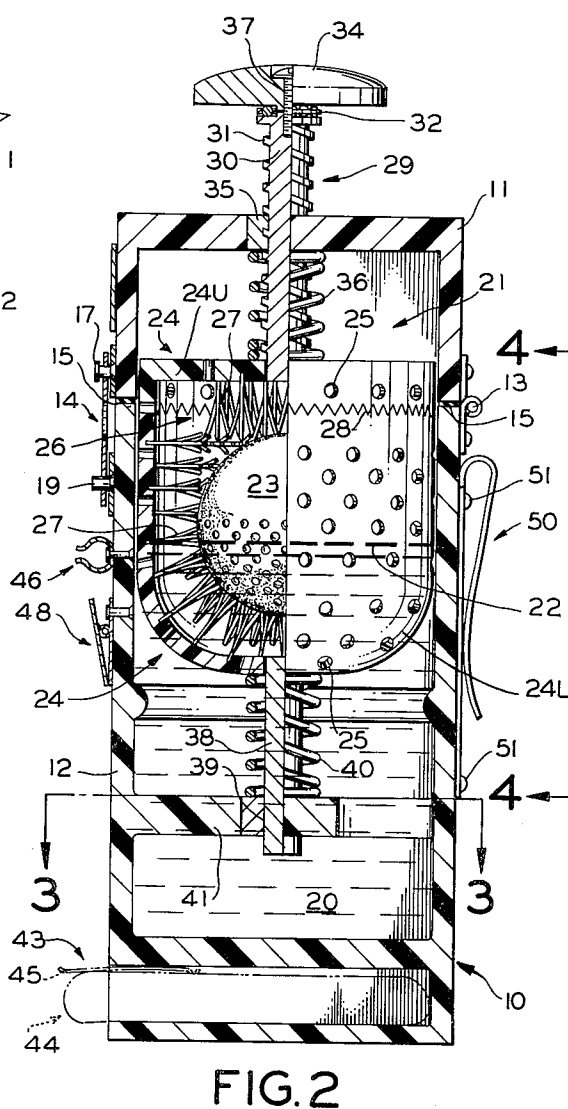
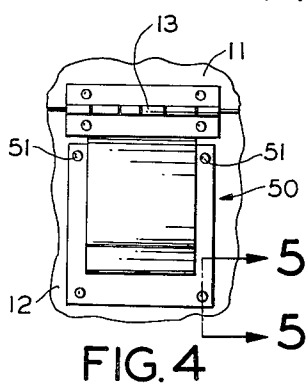
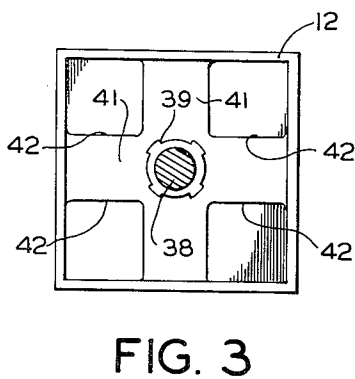
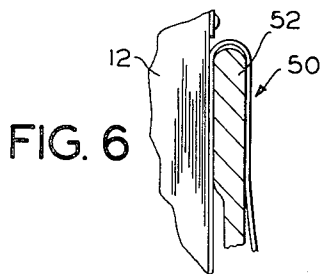
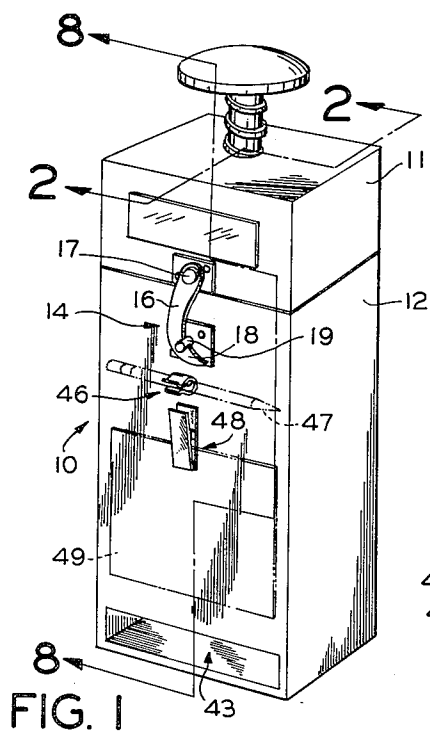
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3,044,089

GOLF BALL WASHER

Filed Feb. 27, 1961

2 Sheets-Sheet 1



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GOLF BALL WASHER

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2 Sheets-Sheet 2

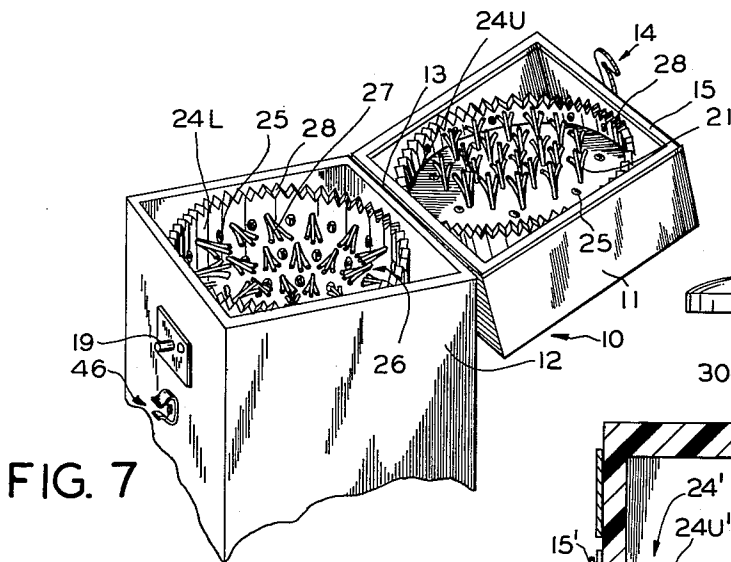


FIG. 7

FIG. 8

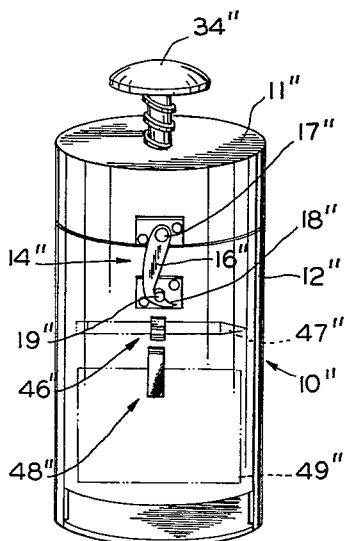
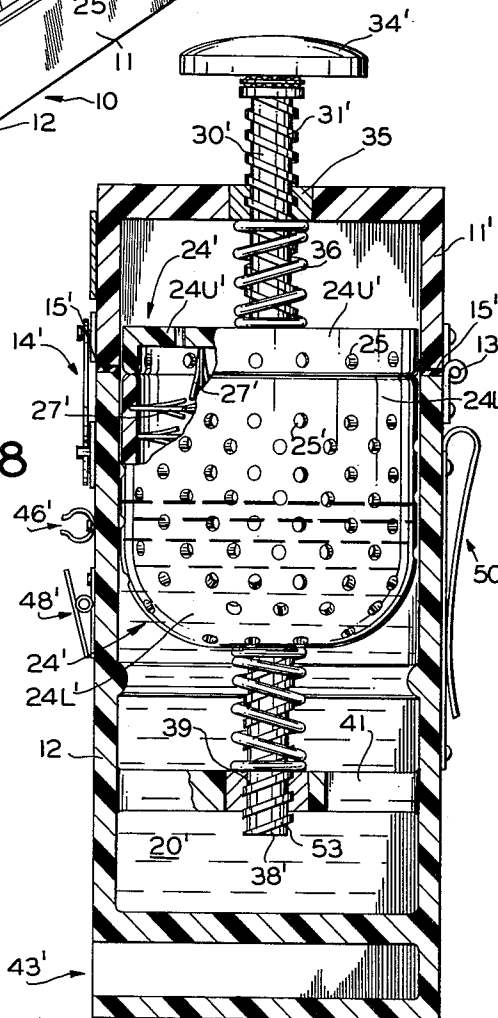


FIG. 9

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GOLF BALL WASHER

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Filed Feb. 27, 1961, Ser. No. 92,099
7 Claims. (Cl. 15-21)

The present invention consists of a golf ball washer of a portable type adapted to be carried about by a golfer, usually by mounting it on his golf bag, and adapted to be used whenever needed for the purpose of washing a dirty golf ball. Of course, it should be understood that while the invention is described throughout this application as a golf ball washer, actually it might be employed for washing any type of ball and might be made of any size adapted for such ball washing purposes and the use of the expression "golf ball" is to be broadly construed in this manner.

It is an object of the present invention to provide a ball washer of the character referred to above, which is of extremely simple, cheap, foolproof, readily portable construction such as to be conducive to widespread use thereof.

Further objects are implicit in the detailed description of two exemplary embodiments which follow hereinafter and will be apparent to persons skilled in the art after a careful study thereof.

For the purpose of clarifying the nature of the present invention, two exemplary embodiments are illustrated in the hereinbelow-described figures of the accompanying two sheets of drawings and are described in detail hereinafter.

FIG. 1 is an oblique exterior view of one exemplary embodiment of the present invention in closed relationship ready for a ball-washing operation.

FIG. 2 is an enlarged, staggered-plane, sectional view taken in the direction of the arrows 2-2 of FIG. 1.

FIG. 3 is a cross-sectional view taken in the direction of the arrows 3-3 of FIG. 2.

FIG. 4 is a fragmentary elevational view of the spring clip means for removably mounting the device on a golf bag and is taken in the direction of the arrows 4-4 of FIG. 2.

FIG. 5 is a fragmentary sectional view illustrating the detail of the attachment of the spring clip mounting means of FIG. 4 with respect to the rear wall of the housing.

FIG. 6 is a fragmentary elevational view of the spring clip mounting means similar in aspect to FIG. 2, but showing it in engaged relationship with respect to the edge of a golf bag for mounting the entire device on the golf bag.

FIG. 7 is an oblique view of the device with the hinged top closure member or cover of the hollow housing in open position and with the upper element of the drum means also shown in open relationship with respect to the lower element thereof, thus showing the serrated or toothed edge means carried by said upper and lower elements of the drum for rotatably coupling them together in response to closure of the top closure means of the housing with respect to the lower housing portion and, consequently, closure of the upper drum element with respect to the lower drum element.

FIG. 8 is a sectional view similar to FIG. 2 but illustrates a slightly modified form of the invention.

FIG. 9 is a view somewhat like FIG. 1, but illustrates a very slightly modified form of the invention.

Referring to FIGS. 1-7 for exemplary purposes, one illustrative embodiment of the invention takes a typical exemplary form wherein it comprises a hollow housing, indicated generally at 10, including a top closure means

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or portion 11 and a lower housing portion 12 hinged interconnected at adjacent back edges thereof by hinge means 13 for opening and closing movement between the closed position shown in FIGS. 1 and 2 and the open position shown in FIG. 7.

The housing 10 includes fastener means, indicated generally at 14, for effectively locking the top closure portion 11 in sealed engagement with respect to the lower housing portion 12, with the seal being provided by elastomeric gasket means 15 positioned between abutting bottom edges of the top closure portion 11 and top edges of the lower housing portion 12 as best shown in FIG. 2.

The fastener means, indicated generally at 14, includes an inclined latch member 16 pivoted to the top closure portion 11 as indicated at 17 and having a lower hook portion 18 cooperable with a fastening projection 19 carried by the outer surface of the front wall of the lower housing portion 12. The arrangement is such that movement of the hook member 16 around the projecting member 19 requires the application of a small amount of force because of the inclination of the hook member 18. This produces a very firm waterproof seal of the top closure portion 11 and lower housing portion 12 along the sealing gasket means 15 so that the hollow interior of the complete housing 10 will effectively retain the washing or cleaning solution, indicated at 20, within the housing irrespective of movement thereof during a ball cleaning operation. In other words, none of the cleaning solution 20 will leak out of the housing 10 during a ball cleaning operation.

It should be noted that normally the cleaning solution 20 is positioned within the chamber, indicated generally at 21, within the housing 10 so as to have a top surface substantially half-way up the housing or at the level indicated by the reference numeral 22 whereby to at least partially submerge the golf ball 23 and the washing drum means, indicated generally at 24, which is provided with a plurality of apertures 25 for the purpose of facilitating the ready passage of the cleaning solution 20 therethrough.

It should be noted that the washing drum means, indicated generally at 24, consists of the upper element 24U and the lower element 24L which together define a substantially cylindrical hollow interior region 26 provided with scrubbing brush means 27 adapted to engage the periphery of the golf ball 23 when the upper element 24U is rotatably locked and coupled with respect to the lower drum element 24L by the serrated tooth-engaging means 28 carried by the upper edge of the lower drum element 24L and the lower edge of the upper drum element 24U. This locking occurs when the housing closure portion 11 is moved into locked engagement with the lower housing portion 12. On the other hand, the upper drum element 24U opens with respect to the lower drum element 24L when the housing closure portion 11 is opened with respect to the lower housing portion 12 in the manner best shown in FIG. 7. At this time the golf ball 23 is inserted into the hollow interior 26 of the washing drum 24 and both the top closure member 11 and the upper drum element 24U are then swung downwardly into the closed position best shown in FIG. 2.

The invention also includes means for relatively rotating the washing drum means 24 and the golf ball 23 with respect to the housing 10 and also with respect to the cleaning solution 20 carried in the chambers 21 and 26 whereby to effectively clean the golf ball 23. In the specific example illustrated in FIGS. 1-7, said rotating means is indicated generally at 29 and takes the form of a longitudinally reciprocable shaft means 30 which is exteriorly threaded as indicated at 31, which has its lower end connected to the upper drum element 24U, which has its upper end rotatively connected by bearing means 32 to an actuating knob or button 34, and which has the

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exteriorly threaded portion 31 received within a correspondingly interiorly threaded torque-applying means comprising a bushing indicated at 35 and carried by the top wall of the upper closure portion 11. The lower portion of the threaded shaft 30 also carries a biasing return spring means 36, which has its upper end abutting the under-surface of the top wall of the closure portion 11 and which has its bottom end abutting the upper surface of the upper drum element 24U. It should be noted that the upper end of the threaded shaft 30 has a screw 37 fixedly threaded thereto and extending upwardly into pivotal relationship with respect to the actuating knob or button 34 with the ball bearing means 32 effectively interposed between the knob 34 and the upper end of the threaded shaft 30 to facilitate relative rotation thereof about a vertical axis.

It should also be noted that the lower end of the lower drum element 24L is provided with a shaft 38 which extends through an apertured portion 39 whereby to vertically slidably position the lower drum element 24L for up and down reciprocating and rotative movement.

It should be noted that the manually operable rotating means, indicated generally at 29, may be operated by pressing the knob 34 forcefully downwardly and then releasing it to allow the return spring 36 to re-extend the knob 34 upwardly, after which the operator again applies downward force thereto, and so forth. In other words, a rapid vertical reciprocating motion of the actuating knob 34 and the exteriorly threaded shaft 30 is caused. The intermittent downward force applied to the knob 37 and the exteriorly threaded shaft 30 and the alternate and intermittent upward return force applied by the biasing springs 36 and 40, causes the washing drum means 24 to vertically reciprocate through the cleaning solution 20 which passes through the multiple apertures 25 so as to be moved relative to the dirty golf ball 23 and to efficiently clean same. Also at the same time, the vertical reciprocating movement of the exterior threads 31 of the shaft 30 with respect to the interior threads of the torque-applying bushing 35 causes the entire threaded shaft 30 to alternately rotate in opposite directions, and to correspondingly alternately rotate the drum 24 in opposite directions. This provides a further relative motion of the dirty golf ball 23 with respect to the cleaning solution 20 and, therefore, greatly facilitates the cleaning action of the solution on the dirty golf ball 23. Also, the abrupt longitudinal and rotative movements of the drum 24 result in inertia-caused relative movement of the golf ball 23 with respect to the brushes 27 whereby to bring about a scrubbing action of the periphery of the golf ball 23, thus very effectively cleaning the dirty golf ball.

The cleaning solution may be of any desired type. For example, it may be water carrying a detergent in solution therein, or various other cleaning liquids may be employed.

The lower apertured bushing 39 is supported in a cross-like structure 41 containing a plurality of apertures 42 to facilitate the ready passage of the cleaning liquid 20 therethrough during the oscillatory cleaning motion of the washing drum means 24.

The lower portion of the housing may be provided with means, such as indicated generally at 43, for holding and dispensing appropriate toweling means such as paper toweling, facial tissues, or the like, for drying the golf ball 23 after it is washed. A packet of such material is indicated generally by the reference numeral 44 with a free end of such toweling being indicated by the reference numeral 45 and being positioned in appropriate dispensing position.

The front wall of the lower housing portion 12 may be provided with suitable pencil holding means, such as is indicated at 46, for the purpose of holding a golf score-keeping pencil 47 in a conveniently accessible location. Also, spring clip means, indicated generally at 48, may

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be positioned on the front wall of the lower housing portion 12 for the purpose of removably carrying a golf score card such as that indicated at 49. However, both pencil holder and golf score card holder may be eliminated, if desired.

The housing 10 may be provided with means for removably mounting it on a golf bag. In the specific example illustrated, this takes the form of spring clamp means 50 fastened by suitable fastening means 51 to the rear wall of the lower housing portion 12 and adapted to resiliently slidably engage the top edge of the golf bag, such as indicated at 52 in FIG. 6, whereby the entire device can be mounted on the top edge of the golf bag for ready portability.

FIG. 8 illustrates a slight modification of the present invention, and similar reference numerals, primed, however, indicate similar parts. In this modification the upper washing drum element 24U' and the lower washing drum element 24L' are not provided with means for coupling the upper and lower drum elements together of the type indicated at 28 in the first form of the invention. In other words, in this modification, the upper drum element 24U' and the lower drum element 24L' may rotate relative to one another. Also, in this modification, the lower shaft 38' is exteriorly threaded as indicated at 53 in a manner similar to the threads 31' of the upper shaft portion 30', but oppositely directed. Also, the lower bushing 39' is similarly interiorly threaded, thus providing an arrangement whereby vertical reciprocation of the washing drum 24' allows the upper exteriorly threaded shaft portion 31' cooperating with the upper interiorly threaded torque-applying bushing 35' to rotate the upper washing drum element 24U' in one direction while the oppositely threaded lower shaft portion 38' cooperating with its threaded bushing 39' will rotate the lower washing drum element 24L' in the opposite direction. This causes the brush bristles 27' carried by the upper drum element 24U' to twist with respect to the dirty golf ball adapted to be contained within the drum 24' in a direction opposite to the bristles 27' carried by the lower washing drum element 24L'. This brings about a very effective washing and scrubbing action. Otherwise this modification of the invention is similar to the first form illustrated in FIGS. 1-7, and no further detailed description is thought necessary.

FIG. 9 illustrates a further slight modification of the first form of the invention wherein it is of substantially cylindrical configuration, rather than square in cross-section in the manner of the first form of the invention. Otherwise, this modification is similar to the first form of the invention. Therefore, similar reference numerals (doubly primed, however) are used to designate similar parts.

It should be understood that the figures and the specific description thereof set forth in this application are for the purpose of illustrating the present invention and are not to be construed as limiting the present invention to the precise and detailed specific structure shown in the figures and specifically described hereinbefore. Rather, the real invention is intended to include substantially equivalent constructions embodying the basic teachings and inventive concept of the present invention.

I claim:

1. A golf ball washer, comprising: a hollow housing including a lower housing portion provided with a hinged top closure portion adapted to sealingly engage said lower housing portion when closed; hollow perforated washing drum means positioned within the hollow housing and provided with means longitudinally movably and rotatably mounting same with respect to the housing, said drum means including an upper element retained within said top closure portion of the housing and a lower element retained within the lower housing portion whereby said drum means will be effectively opened when said housing means is effectively opened for reception of a dirty golf ball within the drum means and for subsequent

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enclosure within the upper and lower elements of the drum means upon closing engagement of the closure portion with respect to the lower housing portion, said drum means being interiorly provided with scrubbing brush means adapted to peripherally engage a received dirty golf ball which is to be washed; said housing defining a chamber adapted to carry a ball cleaning solution for communication with the washing drum means; and manually operable means for relatively longitudinally moving and rotating said washing drum means with respect to said housing for cleaning a ball received within said washing drum means by reason of the relative movement thereof with respect to the cleaning solution and with respect to the interior scrubbing brush means.

2. Apparatus of the character defined in claim 1, wherein said housing is provided with fastener means for effectively locking said closure portion in sealed engagement with respect to the lower housing portion.

3. Apparatus of the character defined in claim 1, wherein said housing is provided with means for removably mounting it on a golf bag.

4. Apparatus of the character defined in claim 1, wherein said housing is provided with means for holding and dispensing toweling means for drying a washed golf ball.

5. Apparatus of the character defined in claim 1, wherein said means for moving and rotating said drum means with respect to said housing comprises longitudinally reciprocable exteriorly threaded shaft means connected to the drum means and correspondingly interiorly threaded torque-applying means carried by the housing and receiving said exteriorly threaded shaft means therethrough for reciprocation and consequently forced rotation thereof in a sense determined by the direction of longitudinal reciprocation of the shaft means.

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6. Apparatus of the character defined in claim 5, including biasing return spring means carried by the shaft means effectively biasing the drum means toward one extreme position for opposition to manual actuation of the shaft means in the opposite direction and for the return stroke movement thereof.

7. Apparatus of the character defined in claim 6, including means for coupling the upper and lower drum elements together in response to closure of the closure portion with respect to the lower housing portion for relatively locked rotation together; said exteriorly threaded shaft means including an upper portion threaded in one direction and connected to the upper element of the drum means and a lower portion threaded in the opposite direction and connected to a lower portion of the drum means, and said interiorly threaded torque-applying means comprising an upper interiorly threaded element fixedly carried by the top closure portion of the housing and engaging the upper threaded shaft portion and an oppositely interiorly threaded lower element fixedly carried with respect to the lower housing portion and engaging the oppositely threaded lower shaft portion whereby vertical reciprocation of the shaft means will produce oppositely directed rotation of the upper and lower elements of the drum means.

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