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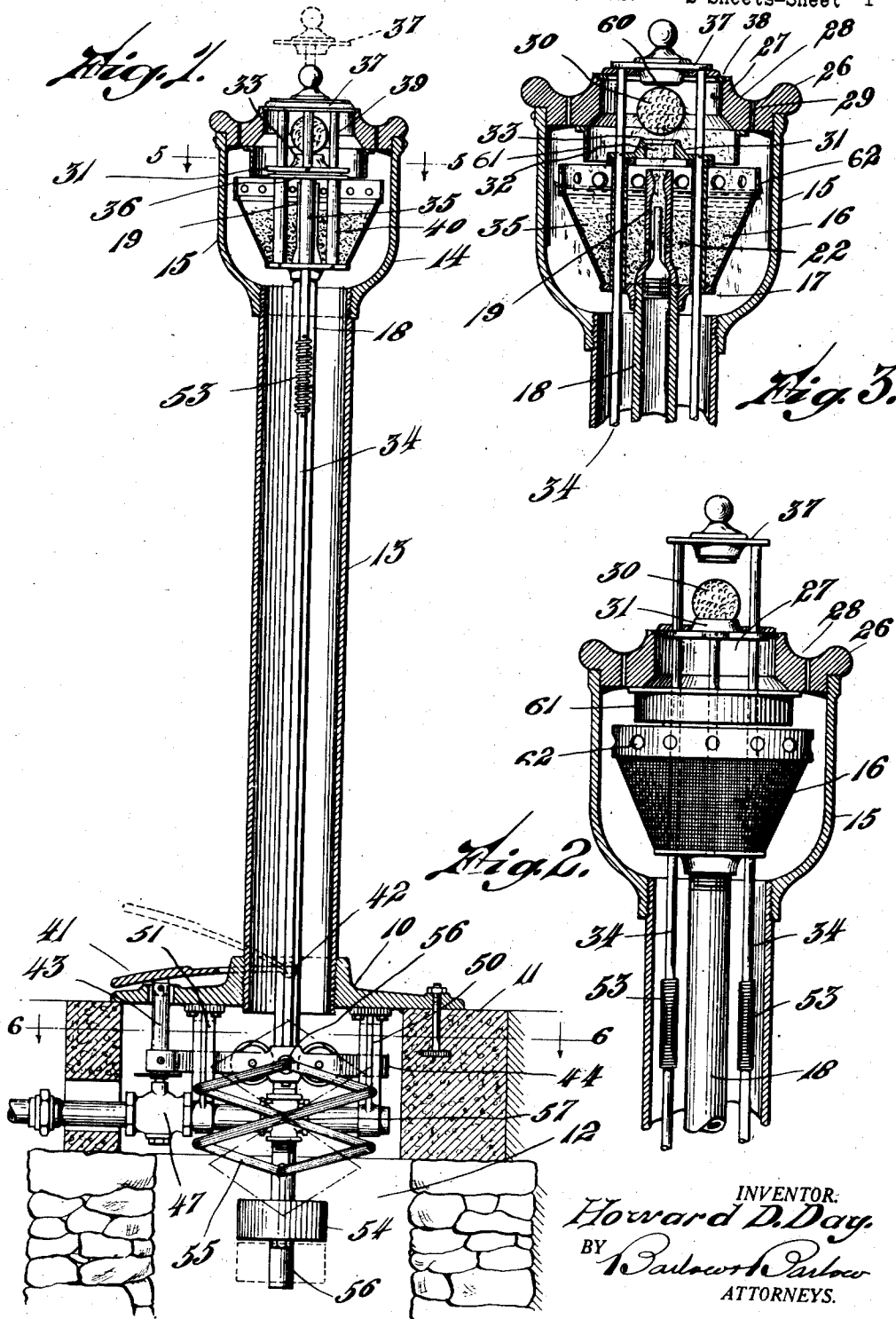
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GOLF BALL CLEANING DEVICE

Original Filed March 29, 1927

2 Sheets-Sheet 1



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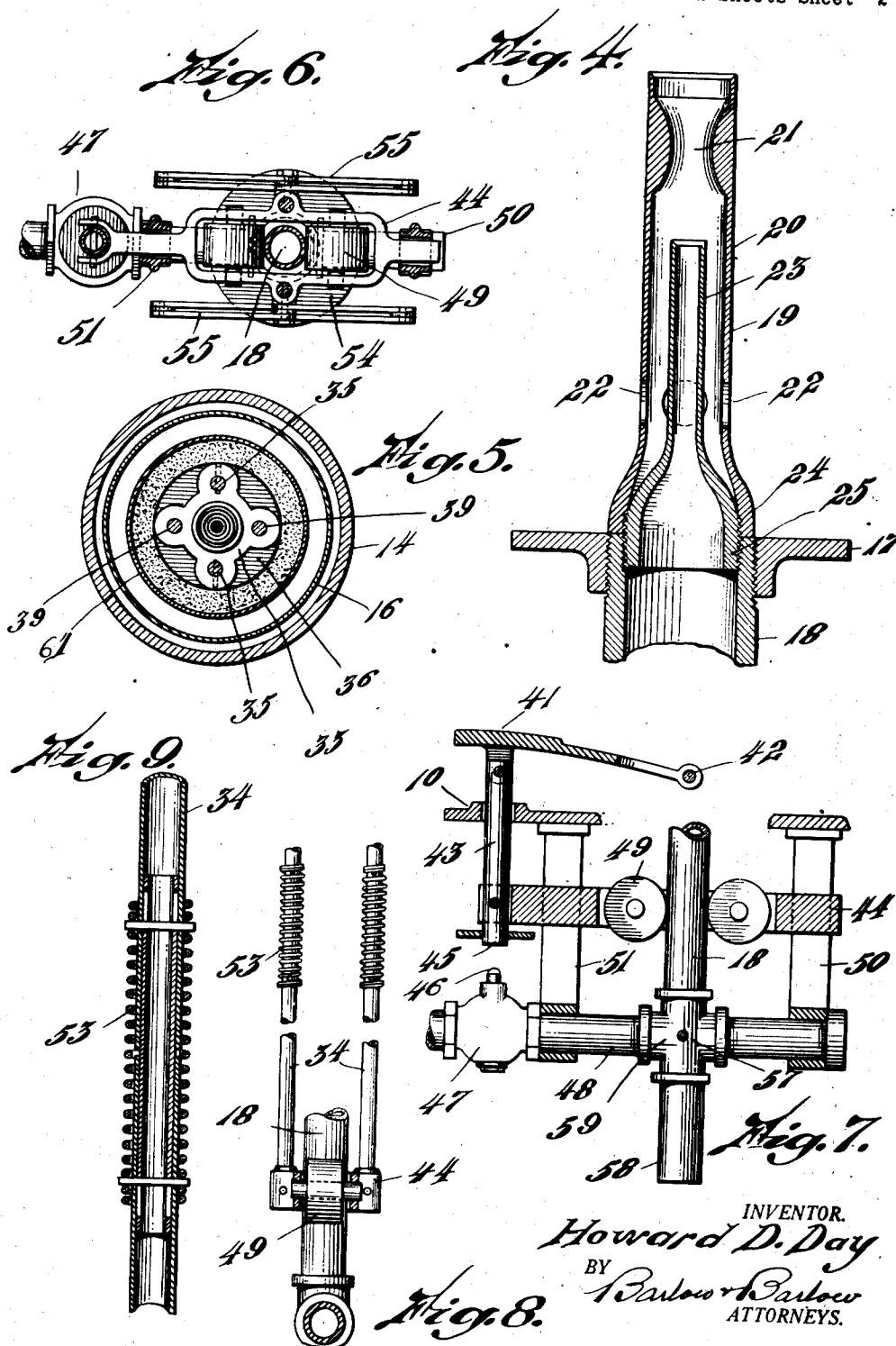
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GOLF-BALL-CLEANING DEVICE.

Application filed March 29, 1927, Serial No. 179,319. Renewed November 8, 1928.

This invention relates to an improved device for cleaning golf balls and other similar articles; and has for its object to provide a device of this character which comprises essentially a casing having means for supporting the ball to be cleaned within it; also it is provided with means for directing a mixture of water and another cleaning substance against the ball when in the receptacle.

A further object of the invention is the provision of an elevator for lowering the ball into the casing, directing the cleaning material under pressure against the surface of the ball while retained in the casing.

A still further object of the invention is the provision of a sand receptacle in the casing and means within the casing whereby the flow of water will take up the sand and force the mixture against the ball while in the casing.

The invention still further consists in the provision of an elevator for lowering the ball into the casing, the elevator being also arranged to close the opening through which the ball enters the casing and the provision of manually operable means for opening a valve and permitting water under pressure to enter and mix with other cleaning material to be forced against the ball to clean it.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a sectional side elevation showing my improved ball cleaning device in operating position.

Figure 2 is a view showing the head portion of the device partly in section and in raised or in operative position to receive ball.

Figure 3 is a sectional view showing the head with the parts in operating position with sand being forced against the ball by water pressure.

Figure 4 is an enlarged view of the nozzle through which water is forced and caused to draw sand, the flow of which serves to draw in the same and force the mixture against the ball to clean it.

Figure 5 is an enlarged section on line 5-5 of Figure 1.

Figure 6 is a top view of the valve and operating mechanism.

Figure 7 is a side elevation showing the

same mechanism with the foot lever and its connected parts in raised position.

Figure 8 is an end view showing the connecting guide rods and one of the operating guide rolls.

Figure 9 is a detail showing the guide rods as yieldably connected together by a spring.

In playing the game of golf the balls used become soiled and require to be often cleaned in order that they may be more easily found, especially when being driven into the rough and to this end I have provided a simple and effective ball cleaning device adapted to be set near the tee or other convenient place, it being only necessary to deposit a ball in the device and press downwardly a foot lever which carries the ball into the head or casing of the machine, closes the opening through which the ball has entered and admit water pressure to clean the ball, all by a single movement of the foot lever. After this cleaning operation is completed and the lever released the elevator or that movable device supporting the ball is automatically returned to raised or normal position to open the lid and present the cleaned ball to the player; and the following is a detailed description of the present embodiment of my invention and showing one construction of ball cleaning device by which these advantageous results may be accomplished:—

With reference to the drawings 10 designates the base plate of the machine, which may be bolted to a concrete or other base 11 which may be built over a well or space 12 preferably formed in the ground near the tee of a golf course. This base plate 10 supports a tubular column 13 on the upper end of which is the head portion 14 which comprises a casing 15 in which is mounted a sand receptacle 16, the body portion of which may be formed of screen wire or other suitable perforated material having mesh or openings fine enough to retain the sand therein, the openings being adapted to permit excess water to drain from the sand. This receptacle is mounted on a base plate 17 which is screwed upon the threaded upper end of the water supply pipe. Within this receptacle is mounted a nozzle member 19, as best illustrated in Figure 4, which is constructed with an outer tube 20 having a reduced opening 21 near its upper end and a plurality of openings 22 through its side wall near the lower end thereof communicating with the sand recep-

tacle 16. Within this tubular member 20 is a smaller jet tube 23 which is threaded as at 25 into the upper end of the water pipe 18, whereby the column of water flowing from the jet tube through the contracted opening 21 in the outer tube serves to create a partial vacuum to draw in the sand through openings 22 to mix with the water and be projected against the surface of the ball to clean it.

This casing 15 is provided with a top member 26 having a central opening 27. This member has an annular groove 28 which may support a number of balls either before or after cleaning and this groove is provided with drip holes 29 to prevent the water collecting in the groove.

In order to provide a suitable support for the ball 30 to be cleaned, I have constructed a collar member 31 having a central opening 32 therethrough with a raised seat portion 33 thereon onto which the ball 30 to be cleaned is deposited. This seat collar member is mounted on a pair of vertically movable operating guide rods 34 which extend up from the base of the machine through the tubes 35 in the sand receptacles. On the upper end of these tubes 35 is supported a rest collar 36.

These guide rods 34 are arranged to extend up through the ball seat collar a distance a little greater than the diameter of the golf ball and on the upper ends of these guide rods is supported a closing lid member 37, which when lowered engages the rubber washer 28 and is adapted to close the central opening 27 in the top member or head plate 26.

In addition to the guide rods 34 another set of rods 39 slidable in the tubes 40 may be employed to better support the elevator parts.

This ball-supporting mechanism which may be raised and lowered to drop the ball into the casing to be cleaned and subsequently lifted, is conveniently termed an elevator and in order to operate this elevator device manually, I have provided at the lower end of the column a foot lever 41 which is pivoted on either side at 42 to this column 13 and on the under side of the end of the lever is pivoted a rod 43 which extends down through and is connected to the crossbar 44. The lower end 45 of this rod being arranged to engage the valve stem 46 of the valve 47 to press the same inward and admit water through the pipe 48 and the central riser pipe 18. This crossbar 44 is connected to the guide rods 34 on either side of the water pipe 18, see Figure 8, which cooperate with the guide hangers 50 and 51 and with a pair of guide rolls 49 to support this cross bar 44 in alignment and against tipping so that when the bar is pressed downwardly by the foot lever 41 through the rod 43, the bar 44 will be drawn downwardly and the elevator through the

rods 34 will lower the ball 30 into the casing and close the opening after the ball has entered, and a further downward movement of the foot lever 41 serves to open the valve 47 and permit the water to rise in the pipe 18, mixes with the sand in the receptacle 16 and force this mixture under pressure onto the surface of the ball to clean it.

In order to permit a further movement downward of the foot lever after the ball seat has been lowered into operating position, I have connected the upper and lower portions of these rods 34 by means of coiled springs 53 whereby the rods are permitted to extend after such seating and permit a sufficiently further movement of the foot lever to open the valve and admit the water pressure.

In order to provide simple and effective means to balance the weight of the guide rods and elevator parts, and return the elevator parts to normal after having been forced down by the foot lever, I have provided a counterweight 54 which is guided vertically on the dependent short pipe or rod 58 and which weight is connected through the lazy tongs arrangement of levers 55 at the point 56 to either side of the cross bar 44, the lazy tongs being also pivotally connected at 57 to the pipe fitting tee 59, whereby when the foot lever 41 is released this counterweight 54 acting through the lazy tongs 55 serves to lift the closure lid 37 to its dotted position and also lifts the ball seat to pass the ball out through this opening and present it in a cleaned condition to the user the operation being as follows:—

The ball is deposited upon its seat 31 when in position illustrated in Figure 2, the foot lever is then pushed down causing the elevator to conduct the ball into the chamber and close the lid 37 to seal the casing. Water is now turned on by further downward movement of the foot lever 41 and as the water flows up through the nozzle it draws inwardly the sand from the receptacle 17 through the holes 22 to mix with the water, the pressure of which causes the ball to lift from its seat and rotate as it bounds about upon its seat 31 and the under portion 60 of the lid, the splashing of the water and the sand is confined within the casing 15, the annular collar member 61 preventing the sand and water from spreading radially causes the sand to drop back into its receptacle 16 to be used over and over again, while the lighter dirt or mud washed from the ball will flow off through the larger openings 62 at the upper edge of the sand receptacle. By means of this flood of water the sand or quartz is kept reasonably clean and the mud or lighter parts are carried off with the surplus water which flows downwardly through the hollow column 13 and is deposited in the well 12 or conducted away through the sewer by any

convenient arrangement of piping (not shown). Upon releasing the foot lever 41 the valve 47 is permitted to close and the elevator and closure lid 37 is raised by action of the weight 54 thru the lazy tong 55 and rods 34.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. In a golf ball cleaner, a casing, means for retaining a ball in the casing, said retaining means permitting movement of said ball, a closure for the casing, and means for directing a mixture of water and another cleaning material against the ball to clean the same.
2. In a golf ball cleaner, a casing, a receptacle for a cleaning material in the casing, means for retaining a ball in the casing, said retaining means permitting movement of said ball, and means for admitting and directing water under pressure mixed with said cleaning material against the ball.
3. In a golf ball cleaner, a casing having a sand receptacle therein, means for retaining a ball in the casing, said retaining means permitting movement of said ball, manually operable means for admitting a pressure of water, and means in the casing for causing the sand to mix with the water and then directing the mixture against the ball to clean the same.
4. In a golf ball cleaner, a casing, a ball support comprising an elevator device for lowering a ball into the casing and subsequently lifting the ball from the casing, and means for supplying a jet of cleaning fluid for cleaning the ball while in the casing.
5. In a golf ball cleaner, a casing, a ball support comprising an elevator arranged to lower a ball into and close the casing and subsequently open the casing and lift the ball therefrom, and means for subjecting the ball to a jet of cleaning material while in the casing.
6. In a golf ball cleaner, a casing, a ball support comprising an elevator arranged to lower a ball into and close the casing and subsequently open the casing and lift the ball therefrom, a receptacle for cleaning material in the casing, and means for mixing the cleaning material with water and projecting the mixture against the ball while in the casing.
7. In a golf ball cleaning machine, a casing, a lid therefor, a nozzle in said casing, an elevator for supporting a ball, and manual means for operating the elevator to lower the ball into said casing and to close the lid, said operating means also admitting water to said nozzle to be projected onto the ball within the casing.
8. In a golf ball cleaner, a casing, a lid therefor, an elevator for supporting a ball and operating said lid, means for moving the elevator to lower the ball into the casing and to close the lid, a conduit for supplying water to said casing, a valve therein, said means also serving to control said valve for the admission of water to be directed against the ball and means for moving the elevator to raise the lid and ball and permit the valve to close and shut off the water.
9. In a golf ball cleaner, a casing, a lid therefor, an elevator for lowering a ball into the casing and closing the lid and subsequently opening the lid and lifting the ball from the casing, a water supply control valve, manually operable means for lowering the elevator and opening said valve in timed relation to said lowering to permit water to act upon the ball while housed in the casing, and means for returning the parts to starting position when the manually-operating means is released.
10. In a golf ball cleaner, a casing, a lid therefor, an elevator for supporting a ball and operating said lid, means for moving the elevator to lower the ball into the casing and to close the lid, a conduit for supplying water to said casing, a valve therein, said means also serving to control said valve for the admission of water to be directed against the ball, and a counter balancing weight for returning the elevator parts to raised position to present the cleaned ball to the operator and to permit said valve to close and shut off the admission of water.
11. In a golf ball cleaner, a casing, a lid therefor, an elevator for lowering a ball into the casing, means for supplying water to said casing, a control valve for said supply means, means for manually lowering said elevator, closing said lid and opening said valve in a single operation and means for automatically returning these parts to normal when released.
12. In a golf ball cleaner, a casing, a sand receptacle in the casing, a lid for the casing, an elevator for lowering a ball into the casing, an injector device for causing the sand from said receptacle to mix with water under pressure, a valve for controlling the flow of water and manually operable means for lowering the casing, closing said lid and opening said valve to admit the water to be driven with the sand against the ball, and means for returning all of these parts to normal after each operation.

In testimony whereof I affix my signature.

HOWARD D. DAY.