July 18, 1933. J. C. STUTZ 1,918,994

GOLF CUP

Filed Jan. 22, 1931 2 Sheets-Sheet 1

Fig. 1.

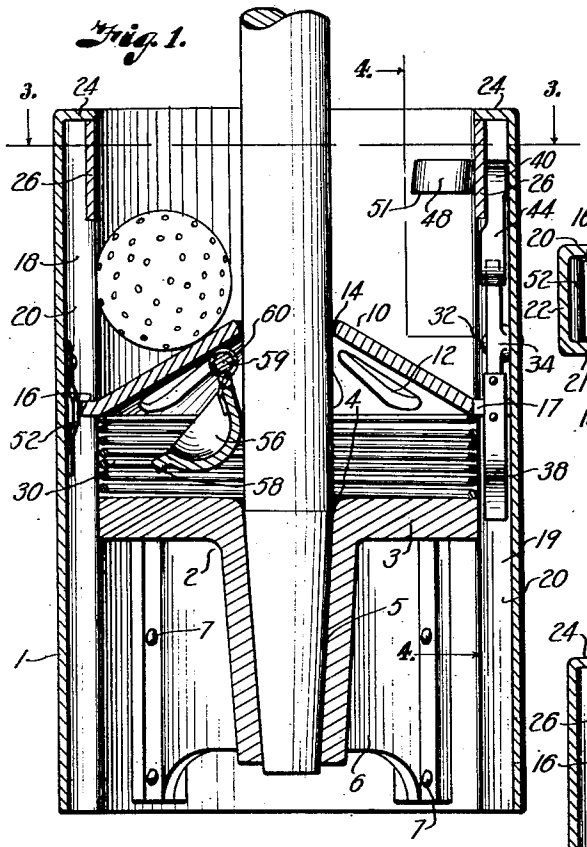


Fig. 3.

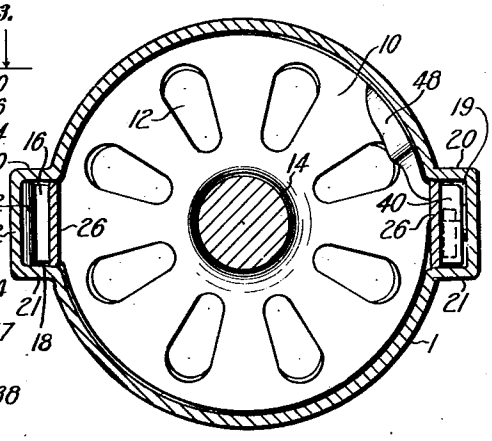


Fig. 2.

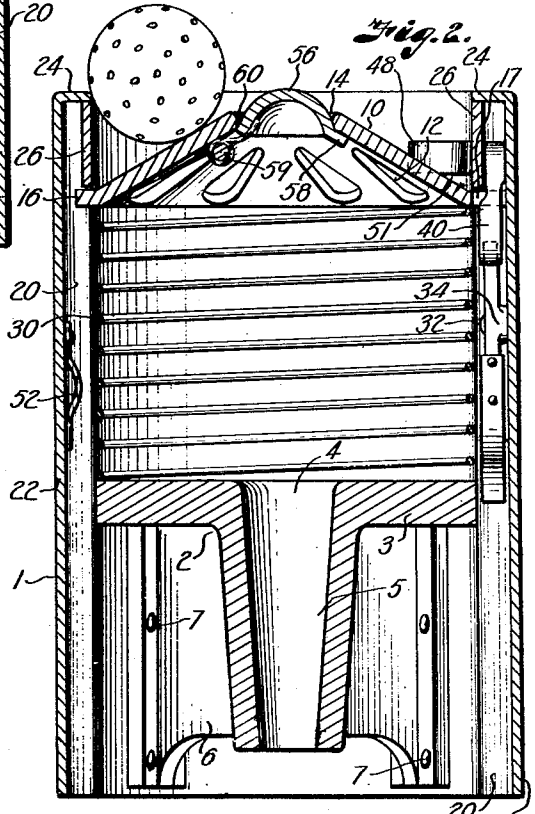


Fig. 4.

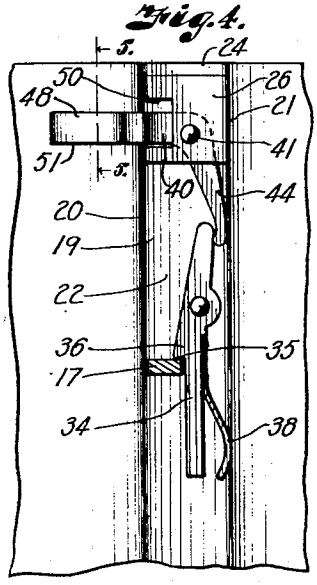
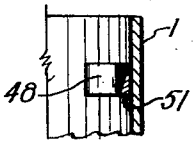


Fig. 5.



INVENTOR.
John C. Stutz
BY Arthur C. Brown
ATTORNEY.

July 18, 1933. J. C. STUTZ 1,918,994

GOLF CUP

Filed Jan. 22, 1931 2 Sheets-Sheet 2

Fig. 6.

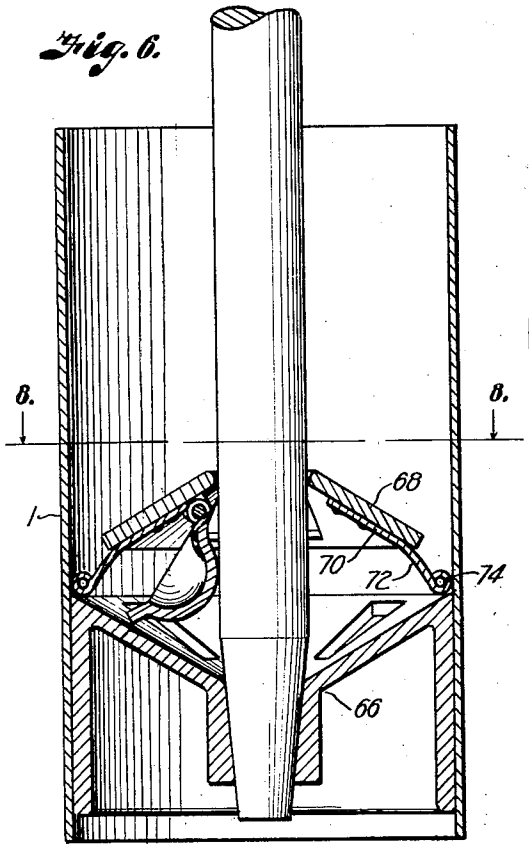


Fig. 8.

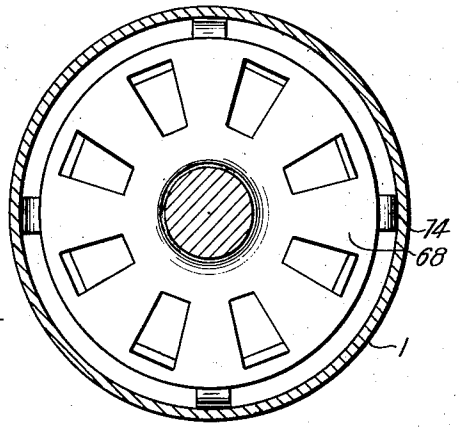


Fig. 7.

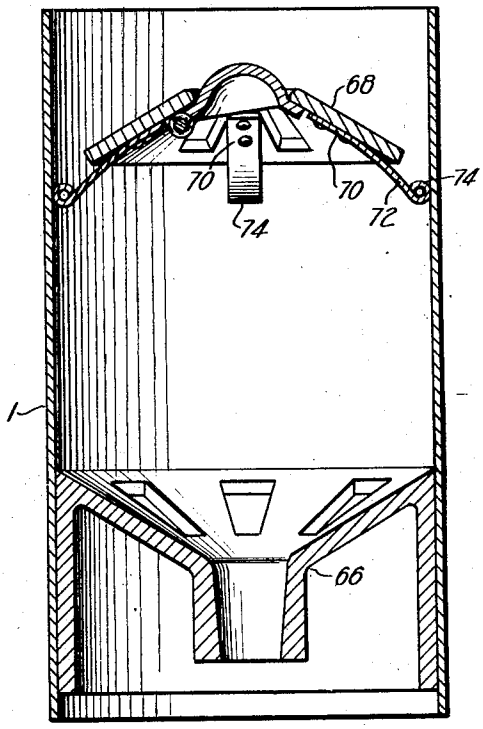
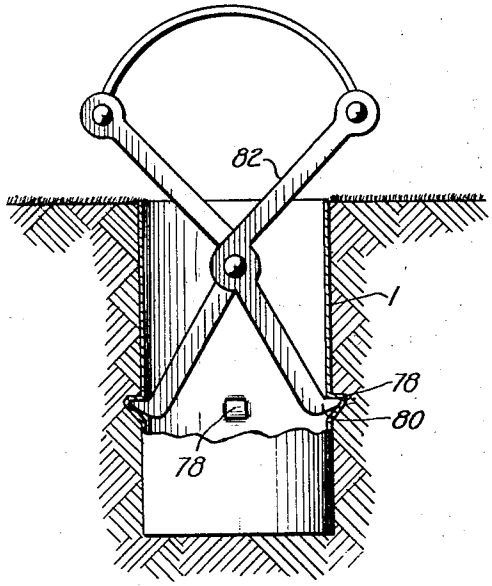


Fig. 9.



INVENTOR.
John C. Stutz
BY Arthur C. Brown
ATTORNEY.

Patented July 18, 1933 1,918,994

UNITED STATES PATENT OFFICE

JOHN C. STUTZ, OF KANSAS CITY, MISSOURI

GOLF CUP

Application filed January 22, 1931. Serial No. 510,466.

This invention relates to golf cups for location in putting green holes to receive balls used in playing golf and like games, a principal object of the invention being to provide an auxiliary bottom for a golf cup, whereby soiling of balls by matter ordinarily accumulating in the normal bottom of a cup may be avoided.

It is also an object of the invention to provide means for ejecting the balls from the cup.

Further objects of the invention are to provide means operable by golf clubs or the like for adjusting an auxiliary cup bottom in a cup and effecting upward movement of the auxiliary bottom for ejecting the balls.

In accomplishing these and other objects of the invention which will be apparent in the course of the following description, improved details of structure are provided, forms of which are illustrated in the accompanying drawings, wherein:

Fig. 1 is a vertical section through a golf cup embodying the invention, showing a latch retaining an auxiliary bottom in spring tensioning position, a ball in the cup, and a flag staff mounted in the normal cup bottom and displacing a lid on the auxiliary bottom.

Fig. 2 is a view similar to that shown in Fig. 1 illustrating its auxiliary bottom in position to which it is elevated by the spring for supporting the ball at the top of the cup.

Fig. 3 is a section on the line 3—3, Fig. 1.

Fig. 4 is an elevation of a portion of the cup on the line 4—4, Fig. 1, illustrating a latch for the auxiliary bottom, and a lever for releasing the latch, an ear of the bottom being shown in section.

Fig. 5 is a fragmentary section on the line 5—5, Fig. 4, illustrating the beveled character of the outer arm of the lever.

Fig. 6 is a section through a modified form of the improved cup, illustrating an auxiliary bottom member resiliently engaging the cup shell, a flag staff being shown fragmentarily.

Fig. 7 is a view similar to that of Fig. 6 illustrating the auxiliary member in elevated position.

Fig. 8 is a section on the line 8—8, Fig. 6.

Fig. 9 is a section through a modified form of golf cup shell and adjacent portions of a putting green, illustrating indented portions in the shell forming abutments to receive tong hooks for removing the cup.

Referring in detail to the drawings:

1 designates a shell, preferably cylindrical in form, and comprising the body of a golf cup that may be installed in a hole in a putting green.

2 designates a bottom member including a web portion 3 forming an annular seat and having an axial opening 4, a socket 5 depending from the web having an opening registering with the opening of the web, and spider-like wings 6 having vertical faces engaged with the inner face of the shell and fixed thereto by suitable means, such as rivets 7.

The web portions of the bottom member may have apertures to permit drainage and the wings may extend radially from the depending socket in circumferentially spaced relation to form the apertures.

Vertically movable in the shell is an auxiliary bottom member 10 having a convex upper face and preferably comprising a conical plate having drainage openings 12 and an axial opening 14 registering with the opening 4 to admit the flag staff to the socket.

The auxiliary member is provided with diametrically opposite flanges or ears 16 and 17 operating in grooves 18 and 19 produced by outstriking vertical portions of the shell to form channel-like diametrically opposite ribs having side walls 20 and 21 and webs 22. The vertical ribs thus provide inwardly facing recesses to receive the ears on the auxiliary bottom member and form a guide for substantially centering the member in the cup and retaining the member in engagement with the cup.

The shell is further provided with inbent flanges 24 on the upper ends of the webs 22 forming stop walls to close the upper ends of the grooves. Plates 26 fixed in the grooves by suitable means such as welding, abut the flanges 24 and have lower edges spaced slightly from the flanges to limit upward

travel of the auxiliary bottom member by engaging the ears 16 and 17 thereon.

A spring 30 comprising a coiled wire having approximately the same diameter as the shell is seated on the bottom member 2, thus forming a resilient support for the auxiliary bottom member, and providing ample space for admitting the flag staff shaft to the socket 5.

Mounted on a pin 32 fixed to the web of the rib which forms the groove 19, on the right hand of Figs. 1, 2 and 3, is a pivotal latching lever 34 having a lower end provided with a notch 35 forming a hook 36 to engage the upper face of the ear 17 that operates in the groove 19. A spring 38, fixed to said depending portion, has an arcuate lower end engaging the wall 21 of the rib to urge the latch into ear-engaging position.

A latch-operating lever 40, having pivotal mounting on a pin 41 supported by the web of said rib and the adjacent plate 26, includes a latch engaging arm 44 provided with an arcuate tip engaging the back face of the upwardly extending arm of the latch, and an operating arm 48 extending through a slot 50 formed in the plate 26 and snugly overlying the inner face of the adjacent portion of the shell.

The arm 48 is laterally arcuate to conform substantially to the shape of the shell and tapers upwardly, as best shown in Fig. 5, thus substantially merging into the surface of the shell to permit free movement of balls downwardly toward the bottom, but providing a relatively broad lower edge 51 engageable by the nose of a golf club head or the like, whereby the lever may be tilted to displace the latch and release the spring-pressed auxiliary bottom member. The lever is spaced sufficiently from the shell to permit the pivotal movement thereof.

The shell is further provided with a flat spring 52 located in the groove 19 and having an outwardly curved portion for providing an abutment beneath which the ear 16 may engage so that the bottom member may be retained in substantially level position in the shell to permit the spring to bear equally against all portions of the periphery of said member.

The ears and conical auxiliary bottom member have dimensions adapting them to permit movement of the member past the spring abutment into latching position, the spring yielding sufficiently to permit passage thereby.

The auxiliary member further includes a lid or cover 56 having an arcuate semi-spherical body portion snugly engageable in the opening 14 and flanges 58 engageable with the portions of the member around the opening. The lid is hinged on a pin 59 located on a chord of the member for swinging movement downwardly away from the opening.

The hinged connection of the lid with the member preferably comprises a wire spring 60 having one end fixed to the lid, a coil mounted on the pin and an opposite end fixed to the lower surface of the auxiliary bottom member, whereby the coiled wire forms a resilient means for urging the lid into the opening of the auxiliary member.

When the auxiliary bottom member is latched in spring depressing position, the flag staff may be pressed against the lid to displace the same for seating the staff in the socket of the bottom member 2.

When the staff is removed the lid will return to closing position and form a dome-like convex apex for the conical bottom to cause balls to roll towards the peripheral portions of the bottom and lodge against the sides of the shell. The lid will yield sufficiently to prevent balls from bouncing therefrom.

When one or more balls lodged in the cup are to be removed, a club may be inserted in the cup to engage the under surface of the lever arm 48 and release the latch, thus causing the spring to move the auxiliary bottom member toward the top of the cup and locate the balls in easily available position.

The auxiliary member may be restored to depressed position by pressing down upon the same with a club or the like, the ear 17 of the member moving downwardly over the inclined face of the latch and shifting the same laterally against the influence of the spring 38 until the ear has passed below the latch hook.

The spring 38 moves the latch into retaining position and also moves the releasing lever into retractive position where its relatively thin upper edge is parallel with the upper edge of the cup and its lower edge offers a shoulder with which a hook may engage without slipping.

The opposite ear 16 incidentally is carried to pass the latching abutment on the opposite side of the shell, for example by inserting the shaft to center the auxiliary bottom, and permit the coil spring to shift the bottom.

The modified form of cup illustrated in Figs. 6 to 8 includes preferably an apertured permanent bottom 66 having a concave upper face and an auxiliary bottom member including an apertured conical body portion 68 having an outer periphery spaced substantially from the inner wall of the shell, and leaf springs 70 having arms fixed to the lower surface of the body, and downbent, outwardly extending portions 72 having rolled ends 74 frictionally engaging the inner surface of the shell. The body has an axial opening to admit a flag staff, and drainage openings.

The member may be moved downwardly to seat the rolled ends of the spring on the bottom member 66 by applying pressure to the body portion 68. The rolled edges of the

springs provide bearings spaced circumferentially around the shell, thus conforming substantially to the contour thereof to facilitate movement of the resilient supports over the surface of the shell.

Dirt and water will be guided by the staff and convex auxiliary bottom toward the outer portions of the shell, and most of such material will pass through the drainage openings. When the member is formed as shown in Figs. 6 to 8, dirt and water will pass over the periphery of the member to the permanent bottom, and through the drainage apertures in the concave permanent bottom.

The modified form of bottom members may be inserted in present golf cups to form an auxiliary bottom to support the golf balls above the dirt and mud collecting in the bottom of the cups.

In the modified form of shell shown in Fig. 9, abutments 78 are formed by outstriking diametrically opposite portions of the shell to form sockets having shoulders to receive hooks 80 on prongs 82 for lifting the cup from the hole.

It is apparent that when the auxiliary bottom is in the cup, as illustrated in Fig. 1, the tong hooks may engage under the abutments formed by the plates 26 for lifting the cup.

What I claim and desire to secure by Letters Patent is:

1. A golf cup including a shell having an outstruck rib forming a vertical groove, a movable bottom member having a tongue operating in said groove for guiding said auxiliary member in vertical movement, said rib having a portion indented to form a boss engageable by the tongue for latching the bottom member.

2. A golf cup including a shell having outstruck vertical ribs forming grooves, a bottom member having an axial opening located in the shell, an auxiliary bottom member having a convex upper face and an axial opening registering with said opening in the first named bottom member movable vertically in the shell, means on said auxiliary member operating in said grooves for guiding said auxiliary member in vertical movement, a spring mounted on the first named bottom member for supporting the auxiliary member, and means in said grooves for latching the auxiliary member.

3. A golf cup including a bottom having an axial opening and a shell provided with diametrically opposite vertical grooves, an auxiliary bottom member having a convex upper face and an axial opening, tongues on said auxiliary member operating in said grooves, a coiled spring mounted on the first named bottom member and engageable by said auxiliary member to impress the spring upon downward movement of said auxiliary member in the shell, a spring pressed latch having pivotal mounting in one of said grooves and having a shoulder to engage one of said tongues for latching the auxiliary member in spring-depressing position, a lever having pivotal mounting on the shell and including an arm operating in said groove for displacing the latch to permit the spring to move the auxiliary member, and a laterally arcuate upwardly tapering arm exterior to the groove, and yielding means on said shell diametrically opposite said latch forming an abutment to receive the other of said tongues.

4. A golf cup including a shell having diametrically opposite outstruck vertical ribs having webs and side walls forming inwardly facing, vertical grooves, and an instruck boss on one of said ribs projecting into one of said grooves, a coiled spring mounted in the shell, means for supporting the spring, a movable bottom member comprising a spider having a convex upper face and provided with opposite ears operating in said grooves and having portions engageable with said spring to tension the same and condition the spring to move said member upwardly in the shell, said member being laterally movable sufficiently in the shell to enable the same to pass said boss, a notched latch pivoted to the other of said ribs opposite said boss, a spring on said latch engaged with said rib to urge the notched portion of the latch into engagement with one of said ears, a lever pivotally mounted in the latch-containing rib having an arcuate tip engaged with the latch for displacing the same to permit the spring to move the member upwardly in the shell, and a plate fixed to the shell in spaced relation with the bottom of one of said rib grooves forming a stop to limit upward movement of the member in the shell.

JOHN C. STUTZ.