In the game of golf, play for each hole is completed by putting the golf ball into a cup, usually metal or plastic, that has been sunk in the surface of a putting green. In the lower part and in the approximate center of the cup is a cylindrical hole, or socket, which is for the purpose of receiving the base of a rod, or pin, and holding the rod, or pin, in upright position. This rod usually extends several feet above the surface of the green and often has a flag attached to its upper extremity. The purpose of this rod, or pin, is to assist the golfer in determining the location of the cup when some distance from the green. (See FIGURE 4 of the drawing which shows a golf cup with the base of a golf flag pin in place in the socket of the cup.)

Hereinafter in relating the merits of my invention I will refer to the previously described rod, or pin, in its entirety as the flag pin. The attachment at the lower extremity of the flag pin will be referred to as the pin base. The cylindrical hole in the lower part of the putting green cup which receives the pin base will be referred to hereinafter as the cup socket.

My invention relates to certain improvements in a pin base. When the pin base is installed in the cup and in the exact center of the cup, there is just enough clearance for the golf ball to enter and drop into the cup. It is therefore desirable that the flag pin be at all times in the exact center of the cup, since many golfers prefer to putt with the pin in place. Also a golf ball is often pitched from a distance onto the green and into the cup. It is therefore desirable that the pin not be leaning to one side or another. Also since many golfers prefer to putt at the cup with the pin removed, it is desirable that the pin be easily removed without disturbing the cup or the surface of the green around the cup. Also it is desirable that the pin be shock-absorbing so that should the ball strike the pin with moderate force, it will have minimum rebound; the forward motion of the ball will be arrested and the ball may drop into the cup (which is very desirable).

To perform properly and accomplish these objectives a flag pin is necessarily dependent upon its base, and present flag pin bases do not accomplish any of these objectives.

Present flag pin bases consist basically of nothing more than a cylindrical piece of metal fitted as closely as is practical to the socket in the cup. This type of base when in good condition more often than not sticks tightly in the cup because of grittiness that falls into the cup wedges between the pin base and the wall of the cup socket. This type of pin base also soon becomes ineffective in centering the flag pin because the pin base and cup socket wear away due to removing and replacing the flag pin.

The accompanying drawing shows the design of my pin base and the description that follows points out how this design accomplishes all of the above and following objectives simply and effectively.

An object of this invention is to properly center the flag pin in the golf cup so that there will be sufficient clearance between the pin and the wall of the cup for the golf ball to drop into the cup from any angle of approach, and to continue to accurately center the pin along use.

Another object of this pin base is to provide a shock-absorbing unit that has no rebound when the golf ball strikes the pin with moderate force, which will allow the ball to drop into the cup instead of rebound-from-the-pin.

Still another object is to furnish a pin base that is self-cleaning, which will eliminate sticking or binding in the cup socket due to collection of sand or grit in the socket.

A further object of this invention is to minimize the problem of pin breakage due to sticking or binding of the pin base in the cup socket, which requires boring, filing, or other damaging action to remove the flag pin from the cup.

Another important object is to provide a pin base that will provide continuing perfect performance after other flag pins due to wear on the base are unsatisfactory for further use, which is made possible in part through an adjustable device (a disc which is very durable, resilient and highly resistant to wear) included as a part of this invention.

And still another object related to the one above is to provide a pin base with a much longer life than those of other flag pins, which is due to the fact that when other pin bases are no longer usable due to wear, replacement of the entire pin base is required; whereas the owner of this invention is required to replace only an inexpensive disc in order to restore the pin base and flag pin to its original condition and usefulness (and that only after numerous adjustments have been made to the original disc).

This invention possesses many other objects and advantages which will become more clearly apparent by the specifications and description which follow.

Referring to the drawings:

FIGURE 1 is an elevation of the proposed pin base, which would be the same from any angle as the base is round.

FIGURE 2 is an elevation of the invention showing the disassembled component parts.

FIGURE 3 is the top view of the pin base showing its true circular shape and absolute concentricity of all interior and exterior surfaces.

FIGURE 4 is a cross section of a golf cup showing the socket in the cup and the invention in place as it will be used on a putting green.

The device disclosed in FIGURE 1 is a drawing of the invention in its assembled state. The pin base A is made from a very substantial material, such as but not limited to malleable iron. Base A may be machined, cast or otherwise fabricated so long as the desired product is rigid material.

The disc B, which is centered at the bottom of base A, is made of a material that is very durable, resilient and highly resistant to wear, such as 80-85 durometer material. It should also be understood that my pin base may be equipped with disc B furnished in a very durable but rigid material. This of course, as later explained in this specification, would provide no means of adjustment at the lower end of the base A, but disc B could be replaced at a small cost when worn. Next is a flat washer C which holds the disc B firmly and with evenly distributed pressure against the bottom of base A. A screw, or bolt, D is inserted through washer C and disc B and screwed into the drilled and tapped hole 12 in the bottom of base A.

Screw, or bolt, D will hereinafter for purposes of identification be referred to as bolt D. When the pin base is installed in the cup socket, the lower surface of disc B, area denoted by point 3, may be above, below or in the exact plane with the lower extremity of the cup socket, point 25 in FIGURE 4.

FIGURE 2 shows the component parts of the pin base, and the exact finishing process of each will be explained herein. Base A is tapered from point 4 in order to prevent marking or cutting the golf ball as it drops into the cup. FIGURE 4. Base A is tapered from point 6 to point 7 and around its circumference in the same manner. The upper
extreme of base A in a plane from point 6 to point 8 is larger in diameter than the socket in the golf cup, measured in a plane from 17 to 18. This allows for loss in diameter of base A and wear on the cup socket, with this portion of base A still remaining larger in diameter than the cup socket. The taper of base A, 6 to 7, is the exact taper required in order for the base A to be seated firmly when inserted into the cup socket and yet not be wedged or stuck and difficult to remove from the socket. The diameter of base A at the lower extreme of the taper measured in a plane from 7 to 9 is smaller than the diameter of the cup socket. Base A is of a cylindrical shape from point 7 to point 10. Since the diameter of this cylindrical part of base A is smaller than the diameter of the cup socket, the only point of contact between base A and the wall of the cup socket occurs at a point along the taper 6 to 7 of base A. In the bottom of base A, the area denoted by 2, there is a hole 12 drilled and tapped to receive a bolt. In the top of base A there is a hole 11 drilled to receive the pin E, and is exactly the diameter required to fit pin E tightly. Holes 11 and 12 are drilled concentric both with each other and with the outer circumference of base A. Concentricity of all holes and all circumferences of each component part of this invention is an absolute necessity for proper functioning of this pin base, because perfect centering of the flag pin within the golf cup is totally dependent on the concentricity of all components of this invention. The pin E may be secured in hole 11 by a number of methods, among them being the following: pin E may be glued in place; it may be pressed into hole 11; or it may be secured by a rivet through base A and pin E. The top and bottom of base A are finished, or machined, surfaces and are exactly parallel to each other and perpendicular to holes 11 and 12.

Disc B is a round washer of sufficient thickness for the outer circumference to exert adequate pressure, when expanded, on the wall of the cup socket to stabilize the flag pin and hold it exactly in the center of the cup. The diameter of disc B before it is expanded measured from points 13 to 14 is slightly smaller than the diameter of the cup socket. The material from which disc B is made should be resilient—be compressive and expansive—while also being highly resistant to wear. In the exact center of disc B there is a hole 15 which is concentric to its outer circumference, and which is barely large enough to permit passage of bolt D. The outer perimeter of disc B is perfectly round with square edges, which permits proper contact of disc B with the inner wall of the cup socket. The importance of the perfect roundness required in disc B cannot be overemphasized. This disc constitutes the only other area besides the point between 6 and 7 on the upper tapered section of base A that actually contacts the wall of the cup socket, and in this respect acts as the stabilizer for the pin base. Disc B is a very important component of this invention because it accomplishes or causes to be accomplished many of the objects as outlined previously. Being compressive in nature, disc B is an shock-absorbing unit of the golf flag pin, that is, it is capable of absorbing shock while offering no rebound. When a golf ball strikes the pin with moderate force, disc B compresses, or absorbs the shock, thus making the pin itself dead. Therefore the ball, instead of rebounding, may drop into the cup. Being also expansive in nature, disc B is the adjustable component of this invention which makes it possible for this pin base to give continuing perfect performance after other pin bases are no longer satisfactory due to wear. After such period of time as this invention becomes loose when in place in the cup socket, a slight turn—approximately one-twelfth of a turn or less, of bolt D causes the washer C and the bottom of base A (10) to apply negligible pressure to again expand disc B back to the exact diameter for a proper fit with the wall of the cup socket. As can readily be seen, this makes the pin base seat itself in the cup socket as firmly as it originally did. This adjustment is so slight and has to be made so seldom that the original disc B will last indefinitely. After other flag pins have become not only unsatisfactory but entirely unsuitable for further use due to wear, replacement of the entire flag pin is required. However, when the above situation occurs with this invention, one has to purchase only a readily available, very inexpensive disc to replace disc B, instead of having to replace the entire flag pin. Therefore this invention has a much longer life than other flag pins and in turn reduces the overall cost of this type item. When the pin base is removed and replaced in the cup socket, disc B completely cleans the wall of the cup socket since it fits perfectly inside the socket. The sand and grit that this disc B does not actually wipe from the socket filters down between the edges of the compressive disc B and the wall of the socket and falls to the ground beneath the golf cup itself. The collection of sand and grit between the base and the wall of the cup socket is one of the biggest, but completely unsolved, problems confronting other flag pins.

Flat washer C is slightly smaller than disc B in diameter before the disc is expanded. Washer C does not contact the wall of the cup socket as can be seen in FIGURE 4. The hole 16 is in the exact center of washer C and is barely large enough to allow passage of bolt D. When bolt D is tightened into the drilled and tapped hole 12 of base A, pressure is applied evenly to the entire of disc B that washer C contacts, thus expanding disc B uniformly all around its perimeter. As has been pointed out, the perimeter of disc B must be expanded uniformly in order to obtain perfect contact with the wall of the cup socket and provide proper centering of the flag pin.

Bolt D may be of any type bolt or screw as desired by the inventor.

FIGURE 3 is the top view of the base A which shows that this invention is round and is designed to fit into a round socket in a golf cup as shown in FIGURE 4. The tapered edge 4 to 5 of base A prevents the golf ball from being cut or marked as it drops into the cup. The hole 11 in the center of base A receives the pin, or rod, of the flag base. This drawing shows conclusively that the invention is circular with absolute concentricity of all interior and exterior surfaces.

In FIGURE 4 the invention is shown in place in the socket of a golf cup as it will actually be used on a putting green. A section of the pin E is shown inserted into hole 11 of base A. The pin E is exactly centered within the golf cup F by points 17 and 18, where base A, along its taper from 6 to 7, actually contacts the cup socket, in conjunction points 23 and 24 denoting the contact between stabilizing disc B and the wall of the cup socket. Bolt D has been tightened into hole 12 of base A sufficiently to expand the perimeter of disc B to make proper contact with the wall of the cup socket, thus providing perfect centering for the flag pin.

As the flag pin is removed and replaced in the cup, disc B wipes the wall of the cup socket, thus removing the sand and grit that may have collected in the areas denoted by 21 and 22. As can be seen in these same two areas, the base A does not contact the wall of the cup socket, and therefore the pin base cannot become wedged or stuck in the cup socket as can other flag pins. When golf pin bases become wedged or stuck in the cup socket due to sand and grit, the cup itself is usually removed from its sunken position in the putting green when attempts are made to remove the flag pin from the cup. This of course disturbs the surface of the green around the entrance to the cup, making the putting surface of this area highly undesirable. As this invention cannot become wedged in the cup socket, this problem has been eliminated.

At such time as disc B becomes worn enough to require adjustment, a slight turn on bolt D expands uniformly the perimeter of disc B back to the required diameter to fit the wall of the cup socket. When the time comes to replace disc B, the bolt D is simply removed from the
hole 12 in base A and a new disc is inserted in place of disc B.

It is preferable that base A be made of a material that can be hardened by heat-treating so as to reduce wear on this part. It is intended that our drawings show that the entire circumference of base A, in a plane at 90 degrees to the axis of base A, and at some point between points 6 and 7 cast against the entire circumference of the upper extremity of the cup socket in so far as is practical. Hereinafter in referring to point of contact at this location the above meaning is intended.

As many possible embodiments may be made of this invention without departing from the scope thereof, it is to be positively understood that all matter set forth herein or shown in the drawings included is to be interpreted as illustrative and not in a limiting sense.

Having thus completely and thoroughly described my invention and having shown that all of the objects set forth are both new and accomplished simply and effectively, I hereby make the following claim pertaining to this invention:

A device for positioning a golf flag pin securely in a golf hole socket comprising:
(a) a circular pin base having an upper and lower end and an upper and lower portion, said upper portion adjacent said upper end having a larger diameter than said lower portion and said lower portion having a straight cylindrical outer surface;
(b) said upper portion having a tapered outer surface from adjacent said upper end to said lower portion;
(c) said upper portion having an opening in said upper end for receiving the golf flag pin;
(d) said lower portion having an opening in said lower end concentric with said opening in said upper end of said upper portion;
(e) a resilient circular disc having an opening therein concentric with said opening in said lower end of said base, said disc being mounted concentric with said pin base adjacent said lower end;
(f) a circular washer having an opening therein concentric with said opening in said disc means, said washer being mounted concentric with said disc adjacent its lower end; and
(g) bolt means extending through each of said concentric openings of said washer and disc and extending upwardly into said opening in said lower end in said lower portion whereby placement of said base in the golf hole socket enables said tapered surface of said upper portion and said resilient disc to continuously contact the golf hole socket thereby enabling said pin base and the flag pin to be centered in the golf hole socket.

References Cited

UNITED STATES PATENTS
151,798 6/1874 Richardson .......... 248—43 XR
1,805,095 5/1931 Horni ............... 248—43 XR

FOREIGN PATENTS
229,114 2/1925 Great Britain.

JOHN PETO, Primary Examiner.