Title: GOLF CLUB CARRIERS

Abstract: A golf club carrier (10) including an outer elongated cylindrical shell (11), a storage unit (20) having storage compartments (21) supported for rotation about a longitudinal axis within the shell (11) and means (24) for supporting a plurality of golf clubs (23) at spaced circumferential positions around the storage unit (20). The cylindrical shell (11) has a side opening (12) and the unit may be rotated to align the compartments (21) with the opening (12) to allow access thereto or rotated to allow access to clubs (23) supported around the storage unit (20).
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
GOLF CLUB CARRIERS

Technical Field

This invention relates to golf club carriers.

Background Art

Conventional golf bags have a number of faults. For example, clubs supported in the bags are exposed to the weather and are unrestrained in the bag leading to loss, theft and damage. Clubs and equipment are unsecured, especially in transit by planes or other transport. Further the clubs are unprotected from impact damage and are difficult to extract or replace. Clubs not replaced in bag can be inadvertently left behind.

Storage for ancillary equipment is usually external to the bag and in the form of pouches or pockets in which articles stored therein are usually in a jumbled and chaotic form. In addition access to the storage pouches or pockets when used with hand and power carts is often difficult if not impossible. Bags used with hand carts are inevitably too heavy, especially when used with sand buckets, leading to tipping and spillages. Conventional bags are unsuited to use with power carts because club and equipment access is difficult.

US Patents Nos. 5,911,322 to Lombardo et al and 5,988,379 to Yearous show golf bags having lateral compartmental storage. When however, the storage compartments are provided externally to the golf bag itself as in these patents, the problems of weight and volume become significant, and this solution to storage problems does nothing to alleviate the other problems pertaining to the golf clubs which arise from the open ended golf bag.

US Patent 4,915,221 to Spangler provides for a golf bag with a front access door through which golf clubs supported on a rotary dispenser can be accessed. The rotary dispenser however has a central inner shaft which occupies the interior of the bag so that the interior of the bag cannot be used for any other purpose. Further storage compartments for other equipment are also arranged externally of the bag. Of practical significance is that this design requires the front door of the bag to be as long as the longest club, therefore with the base and top of the bag added, the overall length of the bag is considerably in excess of the longest club. This makes the bag difficult, if not impossible to carry or place in a vehicle boot. Similarly, the extensive construction brings with it a weight penalty which is far from desirable. In addition, the bag of this patent contains a number of hinged and folding parts which complicate manufacture, add to cost and offer a source of potential maintenance problems.
US patent No 4319616 to Light discloses a golf bag in which the clubs are placed in a horseshoe shaped arrangement around the perimeter of the back with the free inner space of the bag providing discrete storage compartments for ancillary equipment. However in this bag golf clubs are held and stored in a conventional manner which does nothing to resolve any of the problems relating to clubs. Clubs are required to be removed from the top of the bag in a conventional manner. Further in this golf bag, the storage compartments are fixed.

US patent 4,673,082 to Hemme also discloses a rotatable container for the peripheral storage of clubs, but also uses a central shaft upon which the rotating section is carried. This arrangement not only precludes the use of the interior of the bag for storage but the bag is also open ended which appears to defeat the purpose of having a lateral dispersion of clubs. Very minimal storage compartments are provided.

SUMMARY OF THE INVENTION

The present invention aims to provide a golf club carrier which overcomes or alleviates one or more of the above disadvantages or at least provides an alternative to golf bags of the above described type. Other objects and advantages of the invention will become apparent from the following description.

The present invention thus provides a golf club carrier comprising a hollow elongated container, said container having a longitudinally extending side opening, elongated storage means supported in said container for rotatable movement about a longitudinal axis, said storage means including at least one storage compartment, means for supporting a plurality of golf clubs to said storage means at spaced positions partially around the periphery thereof, and means for selectively rotating said storage means to align said at least one storage compartment, or a said club supporting means, respectively, with said side opening to allow access to said at least one storage compartment or allow removal of golf clubs from, or placement of golf clubs into, said container.

When the golf clubs supported on the support means are aligned with the side opening, clubs may be laterally withdrawn through the opening whilst when the compartment/s of the storage means is/are aligned with the side opening, access can be had to the compartment/s to allow removal of the contents thereof or placement of articles into the compartment. Suitably closure means are provided for the at least one
compartment, the closure means substantially closing the side opening when the at least one compartment is aligned with the side opening.

Preferably the container is closed at opposite ends to enclose golf clubs therein and the storage means is rotatably supported at opposite ends by suitably pivot or axle means. Preferably, the storage means includes a carousel rotatably mounted within the container for movement about the longitudinal axis, and a storage unit incorporating the storage compartment/s is supported by the carousel.

Preferably the means for supporting the golf clubs includes means for releasably gripping the shafts of the clubs adjacent the heads thereof. The means for supporting the golf clubs may also include means for supporting the heads of the golf clubs. Suitably, the clubs are mounted head up on an organiser formed in approximately two thirds of the periphery or circumference of the carousel. The other third may be protected by a hood which acts as a protective 'door' when club access is not required. The external side of the hood may be used for storage of tees, pencils, divot repairers, etc. The clubs however may be stored with club heads lowermost if desired. The shape of the heads of the clubs readily allows a variety of options to restrain the clubs in the correct position.

Where the clubs are held in an inverted position, each iron club is suitably seated in a matching section of the organiser and held firmly in place by the gripping means which may comprise cooperating clamping members. The woods may be similarly fastened. Preferably, the heads of the clubs are supported either in a locating grooves or slots in a club support or alternatively supported in suitably shaped saddles, channel or seats. In one arrangement, the carousel may support an annular member provided with a series of spaced apart V-shaped grooves or slots to receive the heads of the clubs. In another form, the saddles, channels or seats for the club heads may be adjustable in rotational attitude to suit the angle of the club head. For this purpose, the saddles, channels or seats may be mounted on pinions which are arranged to cooperate with toothed racks to set the rotational attitude of the saddles, channels or seats.

The cooperable clamping members for the clubs are preferably arranged to releasably clamp around the club shafts. The clamping members may comprise a fixed clamping member and a movable clamping member which is biased towards the fixed clamping member. Preferably the clamping members are of part tubular form to locate neatly about the shafts of the clubs. The movable clamping member may be supported on an arm which is biased towards the fixed clamping member either through the
inherent nature of the arm or by means of a separate biasing means. The above fastening methods prevent the clubs from moving or from inadvertently falling from the bag.

Once a selected club has been rotated into alignment with the side opening, the club can be removed by simply lifting the club head up from the seat in the organiser and pulling gently forwards. The shape of the biased arm will automatically move the club away from the fixed clamping member and free the club shaft. When the club is removed, the biased arm is urged into contact with the fixed clamping member.

Preferably, means are provided to alert a player that a club is not within the carrier or not properly secured in the carrier. For this purpose, the clamping members may include or define contacts on both sections which may engage, activating an electrical switch which will light an indicator on the top of the carrier, alerting the player to the fact that the club is either not in the carrier or not properly secured. When the club is replaced, the contact is broken and the light extinguished.

In a further form the shafts of the clubs adjacent the heads thereof may be simply located in recesses on the carousel which capture the shaft. Preferably the recesses are formed so as to positively grip the shafts. Most preferably, the recesses are of reentrant form. Passages for the club shafts may lead into the recesses from the exterior of the carousel, the passages suitably being of spiral form. The handles or grips of the clubs may also be clamped by clamping means which cooperate with the handles or grips when the shafts of the clubs are held in the recesses at their upper ends. Suitably, the clamping means comprise spaced ribs on opposite sides of the handles or grips, the ribs suitably being spaced apart a radial distance less than the diameter of the golf club grips or handles.

The container is preferably of cylindrical form and the storage means may be in many different sizes and configurations but suitably includes a plurality of drawers or cupboards defining the storage compartments which may be withdrawn or opened when aligned with the side opening. The fronts of the drawers or cupboards defining the compartment closure means preferably are of a curved configuration on a radius slightly less than the radius of the container.

When the storage means is rotated to the compartment access position, all clubs are contained within the hollow container and so protected from weather, abrasion and impact damage. With the storage means in this position, the player can now access any ancillary equipment stored within the compartment/s. Means may be provided for
releasably locking the carousel or storage means in this position say for transport purposes. Means may also be provided for releasably locking access to the compartments for example releasable locks on the drawers.

The golf club carrier can be carried by a shoulder sling, handles, hand cart or by cart. When used with a hand cart, the carrier may include a mount bracket and guide slot with a bottom hook and ball pivot which are mounted on the cart shaft. The ball pivot may be fitted into the gate aperture in the guide slot then slid along to the end of the guide slot. Simultaneously, the bottom hook slides into the mount bracket.

Because the ball on the mounting pivot is too large to pass through the guide slots, the carrier is firmly attached to the handcart by gravity. When not in motion, the carrier is placed in the upright position, allowing the player to access and operate the rotating handle to obtain access to equipment as required. The problems of imbalance are thus eliminated.

The internal storage compartments provide a substantial storage volume without extending the overall volume of the carrier, and at the same time provide a number of discrete storage spaces within which items can be organised and accessed without the jumbled chaos experienced with external pouches. The entire storage unit may be detachable from the carousel and thus the golf club carrier. This brings a number of benefits such as reduction of weight to facilitate loading the carrier and storage unit into a car boot for instance. It allows ancillary equipment to checked, cleaned, replaced etc, at home without the need to carry the entire golf club carrier inside and further allows for security of contents.

A drive motor such as an electric motor may be provided to activate the carousel or storage unit, in conjunction with electronic remote controls to effect rotation of the carousel or unit.

The container suitably is formed as an outer shell which is of substantially circular in cross section but which covers only approximately two thirds of the outer circumference to define the side opening by means of which items carried on storage means can be accessed.

**BRIEF DESCRIPTION OF THE DRAWINGS**

In order that the invention may be more readily understood and put into practical effect, reference will now be made to the accompanying drawings which illustrate a preferred embodiment of the invention and wherein:
Fig. 1 illustrates in perspective view the golf club carrier of an embodiment of the invention showing the carousel rotated to allow access to the storage compartments;

Fig. 2 illustrates in perspective view the golf club carrier of the invention rotated to allow access to selected golf clubs;

Fig. 3 is a longitudinal sectional view of the golf club carrier showing a single golf club supported on the carousel;

Fig. 4 is a front view of the golf club carrier in the Fig. 1 attitude;

Fig. 5 is an enlarged sectional view along line A-A of Fig 3 with all golf clubs supported on the carousel;

Fig. 6 illustrates the manner in which a golf club is supported;

Fig. 7 illustrates in elevational view the lower end of the golf club carrier with an alternative arrangement for supporting the grip or handle of golf clubs;

Fig. 8 is a longitudinal sectional view of Fig. 7 showing the manner in which the grip or handle of golf clubs are positioned;

Fig. 9 illustrates an alternative manner in which the shaft of the golf clubs may be secured in position; and

Fig. 10 illustrates a preferred blade holder arrangement for the clubs.

**DESCRIPTION OF THE PREFERRED EMBODIMENTS**

Referring to the drawings and firstly to Figs. 1 to 4, there is illustrated a golf club carrier 10 according to an embodiment of the invention including an outer hollow shell 11 which typically may be formed of moulded polycarbonate or any other materials and which is substantially circular in cross section. A longitudinal extending access opening 12 is provided in the outer shell 11 to give lateral access to golf clubs held within the golf club carrier 10 or to storage compartments therein in the manner described below.

Mounted within the outer shell 11 is a rotatable carousel 13 which is supported by a central shaft 14 extending downwardly from the fixed top plate 15 of the carrier 10. A further shaft 16 aligned with the shaft 14 is provided at the lower end of the carrier and extends upwardly from the bottom plate 17 of the carrier 10. Bearings or bushes may be provided between the shaft 14 and the top plate 15 and/or the carousel 13 which facilitates rotation of the carousel 13 within the outer shell 11. A handle 18 is fixed to the shaft 14 on the upper side of the top plate 15 to enable the carousel 13 to be rotated by hand. The handle 18 includes at its outer end a hand grip 19 which may be pivoted
upwardly to the operative position of Figs. 2 to 4 or downwardly to the position of Fig. 1 when not in use.

Suspended detachably from the carousel 13 is a storage unit 20 which is rotatably connected at its lower end to the shaft 16 suitably via a bearing arrangement. The storage unit 20 includes in this embodiment a series of drawers 21 arranged one above each other, the drawers 21 having a curved front face of a radius slightly less than the radius of the shell 10. The carousel 13 may thus be rotated to the position of Fig. 1 where the front of the storage unit 20 is aligned with the opening 12 which allows drawers 21 to be slid outwardly as shown in dotted outline in Fig. 1. The storage unit 20 may also include compartments 22 for storage of balls. The drawers 21 may be replaced by cupboards if desired or there may be provided combinations of cupboards and drawers and of course the storage unit 20 may be used for storage of any equipment such as wet weather gear. The storage unit 20 is preferably formed so as to be detachable as a unit from the carousel 13 to allow cleaning or transport or replacement by a further storage unit of a different design. As shown more clearly in Fig. 5 the storage unit 20 in cross sectional converges from the front to the rear to allow its withdrawal through the opening 12. The opening 12 and thus the front of the storage unit 20 which is of a curved configuration may occupy approximately one third of the circumferential space around the carousel 13 and shell 11.

Golf clubs 23 are supported peripherally around the storage unit 20 as shown in Fig. 5 whilst leaving the front of the storage unit 20 free for access. At their upper ends, the clubs 23 are supported by a club organiser 24 which as shown in Figs. 3 and 6 includes an annular ring 25 of tapering height which is provided with a series of V-shaped grooves 26 which receive and support the top edge of the head of a club 23 (shown in dotted outline in Fig. 6) which is the lower edge when the club 23 is inverted, and carry the weight of the club 23. The shaft 27 of the club is gripped between two fingers 28 and 29, each of which is in the form of half of a tube of sufficient diameter to snugly fit the shaft 27 of the club 23 at the hosel but without the two fingers 28 and 29 contacting each other when the shaft 27 is in place.

The outer finger 29 of part tubular form is fixed to a top rim 30 of the carousel 13 whilst the inner finger 28 is carried on a curved arm 31 attached to the ring 25 or other portion of the carousel 13, which acts as a spring, urging the finger 28 towards the finger 29. A cut out section 32 in the rim 30 of the carousel 13 allows the shaft 27 of the
club 23 to sit inside the two fingers 28 and 29 and so be securely held therebetween. The weight of the club 23 being supported by the V-sections 26 ensures that the club 23 cannot move without positive action by the player. This is sufficient to prevent abrasion damage or loss, yet the club can be instantly released by lifting and pushing the club slightly inwardly. Pressure from the shaft 27 will force the spring arm 31 back in an arc, automatically moving the club 23 away from the fixed outer finger 29 and allowing easy removal by the player.

To locate the handles 33 (or shafts 27) of the clubs 23, a part ring 34 may be provided towards the lower end of the carousel, the ring 34 having a series of part circular locating grooves 35 in its periphery which are of substantially the same diameter as the diameter of the handles 33. The handles 33 will be firmly located in the grooves 35 due to the gripping force provided by the cooperating fingers 28 and 29.

To enable the storage unit 20 to be removed through the access opening 12, the ring 34 is formed with a pair of opposite wings 36 which are pivotally mounted at opposite pivot points 37 for movement between an outer position where the wings 36 are in the position shown in Fig. 5 and extend along the same circumference with the remainder of the ring 34 and the inner position shown in dotted outline. In this position, it will be apparent that the width of the storage unit 20 is less than the width of the opening 12 so that the storage unit 20 can be removed through the opening 12. The wings 36 are arranged to pivot into a small compartment 38 (shown in Figs. 3 and 4) to which the user has access. The compartment 38 may be opened by a hinged door so that the user can either pivot the wings 36 outwardly to the operative position of Fig. 5 where they are suitably clipped or latched into position or inwardly to the dotted outline position.

Without a club shaft 27 in place, the two fingers 28 and 29 contact each other due to the spring force of the arm 31. The fingers 28 and 29 may be provided with electrical contacts which close when the fingers are urged towards each other in the absence of a club shaft 27. The contacts may be provided by separate electrical contacts 39 or electrically conductive portions of the fingers 28 and 29. The contacts 39 thus act as a switch and wires 40 connect the contacts 39 with a battery and one of a series of indicator lights 41 provided on the top of the carrier 10. The indicator lights 41 are marked with the club number so that the user is aware of which club 23 has been removed and not replaced. Connection between the wires 40 and lights 41 may be
provided by means of a slip ring arrangement to take into account the rotation of the
carousel 13. Alternatively, the shaft 14 may be hollow to allow the placement of the
necessary wiring harness

For removal of clubs 23 from the carrier 10, the golfer uses the handle 18 to
5 rotate the carousel 13 to a position to align the selected club with the front access
opening 12 as shown in Fig. 2. The golfer then simply grasps the head of the club 23 as
he would with a conventional bag. Lifting and slightly moving the club towards the
centre of the carrier 10 against the bias of the arm 31 will free it from the fingers 28 and
29. The removal of the club 23 through the opening 12 merely requires the user to
move the club 23 towards him or her.

To place the club 23 in the carrier, if necessary the carousel 13 is rotated to the
appropriate position relative to the opening 12. The club shaft 23 is placed in the cut-out
section 32 and against the spring arm 31 and pressed forward. The shape of the arm 31
will force the shaft 27 to slide into place between the two fingers 28 and 29 and the head
of the club 23 is then placed into a V-slot 26. The club 23 is now firmly held in place
and the indicator warning light 41 is extinguished.

Should an indicator light 41 remain lit, the player immediately knows that club is
either not in the carrier or improperly secured. On those occasions where the player
takes more than one club from the carrier, such as when he is in a bunker by the green,
this will help prevent him inadvertently leaving a club on the course.

When club access is not required, the clubs are moved within the protective
shelter of the carrier, aligning the front of the storage unit 20 with the access opening 12
where the curved faces of the drawers 21 substantially close the opening to act as a
protective screen or door.

The hand grip 19 may be spring loaded to either the upright position necessary to
turn the carousel or it can be turned through 180 degrees to lock the carousel in any
desired position by mating with indentations on the top cover plate 15 or simply align
with markings in the top plate. Alternatively, other means such as a locking pin
engageable with the carousel may be provided to lock the carousel 13 in position for
transport purposes, normally in the Fig. 4 position. Similarly, locking means may be
provided to lock the drawers 21 in the closed position of Fig. 4 to prevent them from
inadvertently opening during transport. Again the locking means may be provided in the
form of a locking pin associated with each drawer 21 or all drawers 21 as a unit.
The outer shell 11 can be covered with fabric or leather as is a conventional carrier, but it is preferred that the area (two thirds of the circumference) occupied by the club heads on the carousel will be transparent to allow the player visual access to this section. Most other components are preferably moulded from a plastic such as nylon.

The main structural member of the carrier preferably comprise the outer shell 11, top plate 15, bottom plate 17 and a main elongated stem 42. An upper Y-shaped arm 43 radiates from the top of the main stem 42 to carry side support rods 44 on opposite sides of the opening and the carousel shaft 14. The main stem 42 may carry a mount bracket 45 and guide slot 46 by means of which the carrier 10 can be attached to a pullcart or powered golf cart. Seals may be provided on opposite sides of the opening 12 adjacent the rods 44 to seal against the storage unit to fully seal the space within the shell 11 at least in the Fig. 5 position.

The one third of the carousel arc not utilised for carrying clubs is fitted with a hood 47 aligned with the front of the storage unit 20 to screen the inside when the storage unit 20 is in the access position. The outside of the hood 47 is recessed at 48 so as to permit the storage of tees, pencils, divot repairers, etc, placing them conveniently to hand.

As an alternative to the handle 18, the carousel 13 may be driven by an electric motor 49 (shown in dotted outline) which may be operated by a press button or by a remote control.

The drawers 21 of the storage unit 20 are suitably formed of a moulded plastic and have suitable latches and handles for access purposes.

The arms 31 which support the part tubular fingers 28 may be spring arms or alternatively separate biasing means such as a spring may be provided to bias the arms 31 and fingers 28 towards the fixed arms 29.

To enable the lower end of the storage unit 20 to be supported by the shaft 16, the lower end thereof may be provided with a radial extending groove 50 leading to a mushroom shaped recess 51 in which the upper end of the shaft 16 may seat. Thus as the storage unit 20 is removed, the shaft 16 will move along the groove 50 until the storage unit 20 becomes detached. It will be appreciated however that the storage unit 20 may be formed integrally with or permanently connected to the carousel 13 so as to be non removable through the opening 12. In yet a further arrangement, the unit 20 and
carousel 13 may be removed endwise from the shell 11 by removing the top plate 15 or bottom plate 17.

Referring now to Figs. 7 to 10 there is illustrated a further arrangement for supporting golf clubs around the storage unit 20. The storage unit 20 in this embodiment is provided at its lower end with an annular channel 51 in which the handles 33 of the clubs 23 may be placed and supported. A compression rib 52 is formed on the inner surface of the outer wall 53 of the channel 51 and a further compression rib 54 is formed around the outer wall of the storage unit 20 and spaced upwardly from the rib 52. The handles or grips 33 of the golf clubs 23 are placed into the channel 51 at an angle as shown in Fig. 8 and then moved to an upright position towards the storage unit 20 where the ribs 52 and 54 engage opposite sides of the handle or grip 33 whilst the shafts 27 of the golf clubs 23 are secured at their upper ends. The radial distance between the ribs 52 and 54 is less than the diameter of the club handles or grips 33 such that the handle or grip 33 is jammed between the ribs 52 and 54 reacting against the grip on the shafts 27 as described below.

The top rim 30 of the carousel 13 is provided with a series of shaft grips 55 (see Fig. 9) which are in the form of a spiral shaped slot 56 which terminates in a reentrant clamp recess 57, the width of entry of which is less than the diameter of the shaft 27 of the club 23. Thus as the clubs 23 are moved inwardly after the grips 33 are located as described with reference to Fig. 7, they are moved into the spiral slot 56 and then snapped into position within the clamp recess 57. The clubs 23 are thus clamped at their upper ends and held at their lower ends by the opposing ribs 52 and 54. Removal of the clubs simply requires the club shafts 27 to be detached from the clamp recesses 57 and moved anti-clockwise out of the slots 56 and then simply lifted from the carrier 10.

To hold the blades or heads of the clubs 23 in position, a blade holding assembly 58 is provided in place of the club organizer 24. The blade holding assembly 58 includes a plurality of blade holders 59 corresponding in number to the number of iron clubs to be supported. Each blade holder 59 is in the form of a channel 60 which is mounted by a stem 61 on a pinion 62. The pinion 62 is arranged to cooperate with a plurality of sets of toothed upper and lower racks 63 and 64 on the carousel 13, each set extending generally along a helix relative to the axis of rotation of the storage unit 20 as shown in dotted outline so as to be of increasing distance from the club handle or grip holders for supporting clubs of different lengths. The sets of racks 63 and 64 can be
adjusted in height above the carousel 13. The angle of an iron club face varies between 8 and 60 degrees and each blade holder 59 can be adjusted relative to the racks 62 and 63 to a required angle to match a particular iron. For positioning the blade holder 59 at the correct angle, the pinions 62 are detached from the racks 63 and 64, rotated to the angle of the club head or blade and then reinserted between the racks 63 and 64 in that position. If clubs held in the carrier are varied, the pinions 62 insert can be simply removed from engagement with the racks 63 and 64 rotated to match the club head and then reengaged with the racks 63 and 64. For left handed clubs the sets of racks 63 and 64 are removed and inverted and secured back in position. The blade holders are then reversed in angulation forming a mirror image of the right handed version suitable for left handed clubs. This eliminates the need for special moulds for left handed clubs. If necessary suitable retention means may be provided for holding the pinions 62 between the racks 63 and 64 in a desired angular position. The blade holders 59 are positioned such that the club heads enter the channels 60 as the club shafts 27 are moved towards the spiral passage 56 for location in the recesses 57. Woods including metal woods being of increased length relative to iron clubs may be simply held by the handle and shaft holders of Figs. 7 to 9.

To accommodate variations in club height, the blade holders are set at the maximum height and the adjustments made at the channel 51 by making the channel 51 are separate member which can be moved longitudinally along the unit 20 or by placing inserts within the base of the channel 51.

Of course many different arrangements may be provided for supported the golf clubs around the storage unit 20 and the club shaft gripping arrangement may be of many configurations other than that described and illustrated in the embodiments.

Similarly many different arrangements may be provided for supporting the heads of the golf clubs so as to prevent them impacting against each other either when the golf club carrier is in use or when the carrier is being transported with the clubs supported therein.

Whilst the above has been given by way of illustrative embodiment of the invention, all such variations and modifications thereto as would be apparent to persons skilled in the art are deemed to fall within the broad scope and ambit of the invention as herein defined in the appended claims.
CLAIMS

1. A golf club carrier comprising a hollow elongated container, said container having a longitudinally extending side opening, elongated storage means supported in said container for rotatable movement about a longitudinal axis, said storage means including at least one storage compartment, means for supporting a plurality of golf clubs to said storage means at spaced positions partially around the periphery thereof, and means for selectively rotating said storage means to align said at least one storage compartment, or a said club supporting means, respectively, with said side opening to allow access to said at least one storage compartment or allow removal of golf clubs from, or placement of golf clubs into, said container.

2. A golf club carrier according to claim 1 and including closure means for said at least one compartment, said closure means substantially closing said side opening when said at least one compartment is aligned with said side opening.

3. A golf club carrier according to claim 1 or claim 2 wherein said container is closed at opposite ends such that clubs supported on said storage means are enclosed within said container and wherein said storage means is rotatably supported in said container by pivot or axle means at opposite ends.

4. A golf club carrier according to claim 1 wherein said means for supporting said golf clubs includes means for releasably gripping the shafts of said clubs adjacent the heads thereof.

5. A golf club carrier according to claim 4 wherein said means for gripping said shafts comprise a fixed clamping member and a movable clamping member biased towards said fixed clamping member such that said clamping members may grip said shaft therebetween.

6. A golf club carrier according to claim 4 wherein said means for gripping said shafts comprise reentrant recesses in which said shafts may be gripped.
7. A golf club carrier according to claim 1 wherein said means for supporting said
golf clubs includes means for supporting and gripping the handles of said golf clubs

8. A golf club carrier according to claim 7 and including a channel at the lower end
of said storage means for receiving said club handles.

9. A golf club carrier according to claim 8 and including rib means on opposite
sides of said channel for engaging opposite sides of said club handle.

10. A golf club carrier according to claim 9 wherein said means for supporting said
golf clubs includes means for positioning the heads of said golf clubs.

11. A golf club carrier according to claim 10 wherein said means for positioning the
heads of said golf clubs a club support provided with a plurality of spaced grooves or
slots for receiving said heads.

12. A golf club carrier according to claim 10 wherein said means for positioning the
heads of said golf clubs includes a plurality of saddles or channels for receiving said golf
club heads.

13. A golf club carrier according to claim 12 wherein said saddles or channels are
mounted so as to be rotatably adjustable to suit club heads of different angles.

14. A golf club carrier according to claim 13 wherein said saddles or channels are
secured to pinions co-operative with toothed racks to enable rotatable adjustment of said
saddles or channels.

15. A golf club carrier according to claim 1 and including indicator means for
alerting a player that a particular club is properly secured within said carrier.

16. A golf club carrier according to claim 1 wherein said container is of a cylindrical
form.
17. A golf club carrier according to claim 16 wherein said storage compartment or compartments comprise drawers or cupboards.

18. A golf club carrier according to claim 17 wherein said drawers or cupboards have fronts defining the compartment closure means which are of a curved configuration on a radius slightly less than the radius of said container.

19. A golf club carrier according to claim 1 wherein said means for rotating said storage means comprises drive motor means.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. 2: A63B 55/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of database and, where practicable, search terms used)

WPAT: IPC as above with keywords (golf, (bag, carrier, receptacle, shell), (compartment, pouch, pocket, drawer, storage, organiser), (rotate, revolve, turn, carousel, swivel)) and like terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td>A</td>
<td>US 5988379 (YEAROUS) 23 November 1999 Figure 1</td>
<td>1-19</td>
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<td>P,A</td>
<td>WO 01/03779 A (STEWART) 18 January 2001 Figures 1, 2</td>
<td>1-19</td>
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<td>P,X</td>
<td>AU 722572 (19545/00) B (BUCKLEY) 3 August 2000 Whole document</td>
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Further documents are listed in the continuation of Box C

See patent family annex

* Special categories of cited documents:
  "A" document defining the general state of the art which is not considered to be of particular relevance
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document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such
combination being obvious to a person skilled in the art
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Date of the actual completion of the international search: 28 May 2001

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### DOCUMENTS CONSIDERED TO BE RELEVANT

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