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(54) **GOLF CLUB GRIP**

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(57) **ABSTRACT**

A golf club grip includes a tubular body, a hard shell cap, and a single-sheet anti-slip skin. The tubular body includes an end portion having an end face extending transversely of the end portion, and a vent hole formed in the end face of the end portion. The end face is flat and has no projection around the vent hole. The hard shell cap is fastened removably to the end portion of the tubular body, and includes a cover plate axially covering the vent hole and projecting radially from the end face of the end portion of the tubular body, and a skirt portion extending peripherally and axially from the cover plate and abutting against an end portion of the single-sheet anti-slip skin. The single-sheet anti-slip skin covers correspondingly a wall surface of the tubular body.

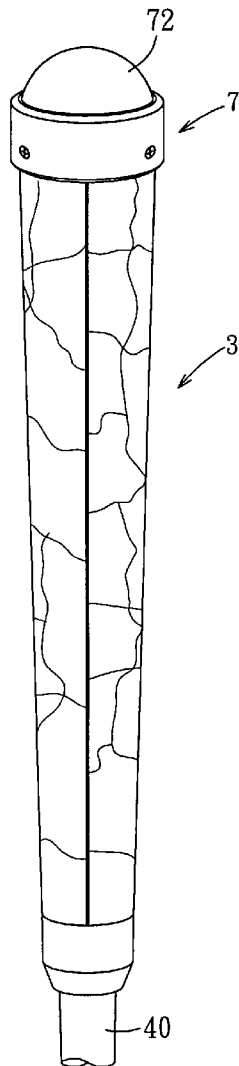
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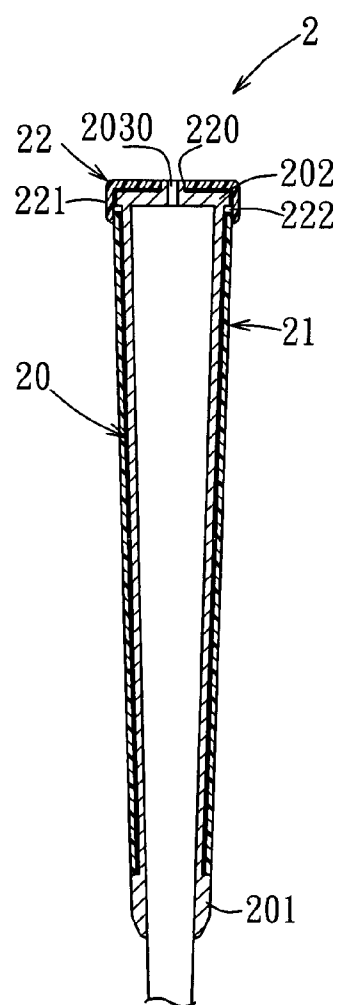
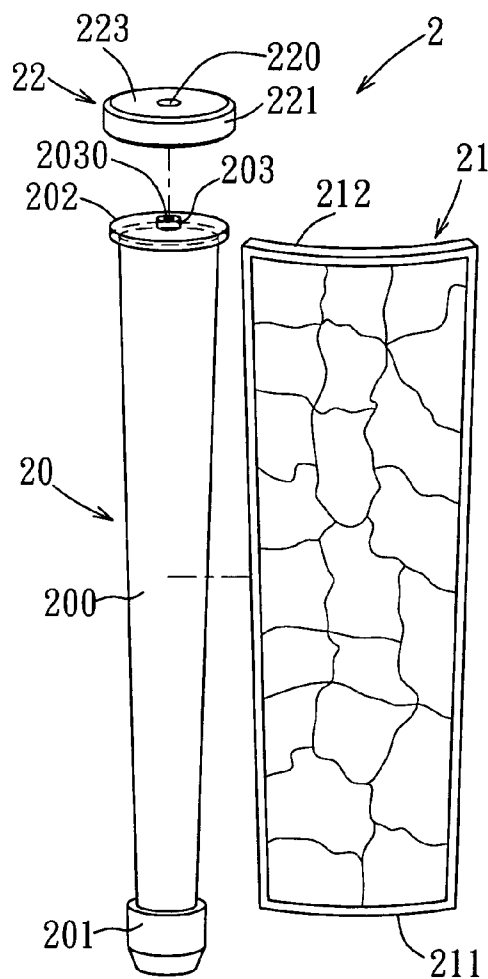
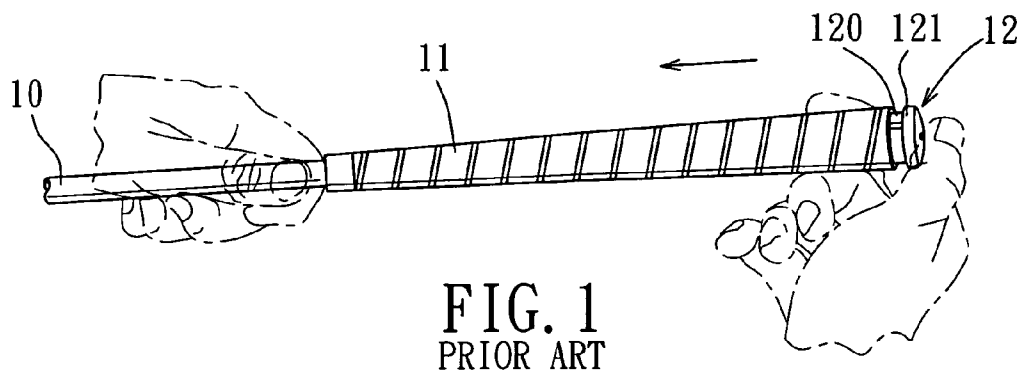
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Jan. 20, 2005 (TW)..... 094101660





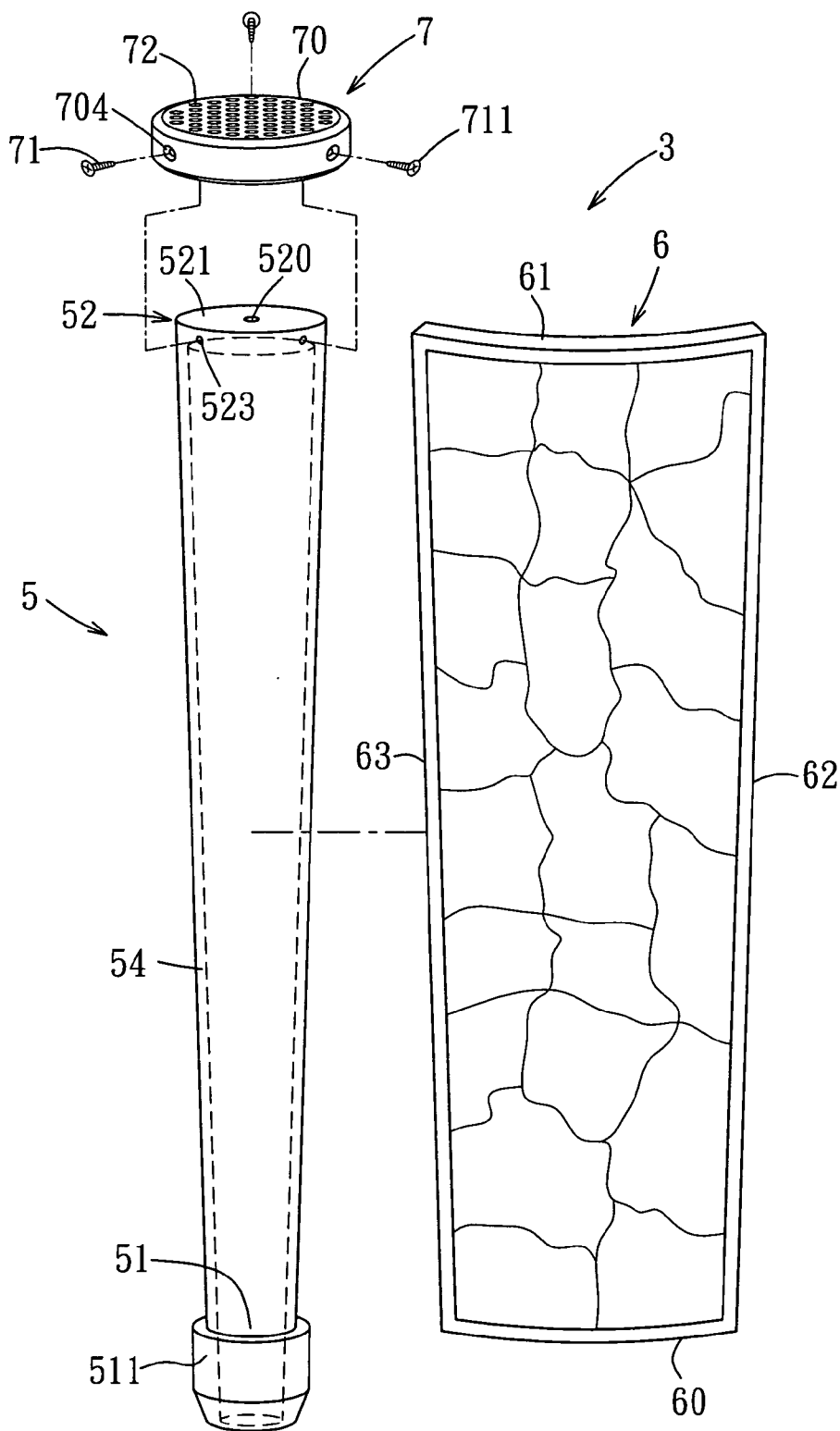


FIG. 4

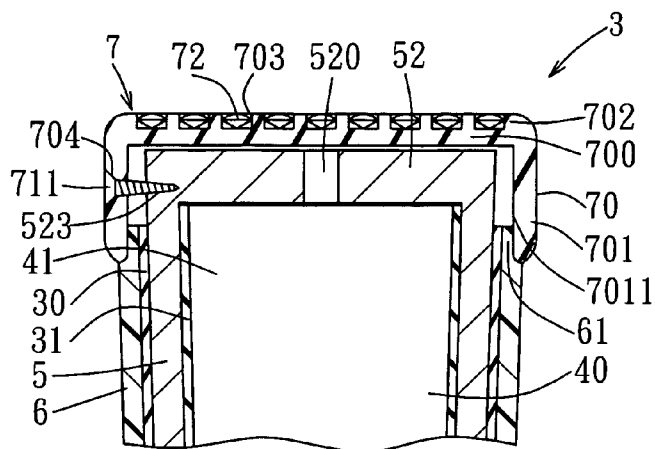


FIG. 5

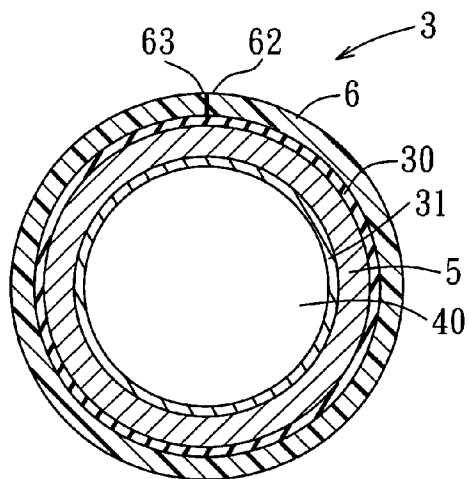


FIG. 6

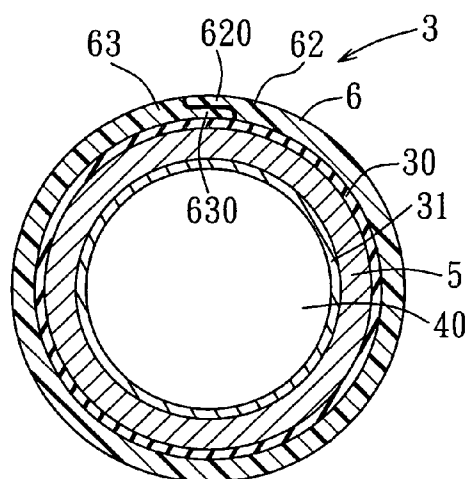


FIG. 7

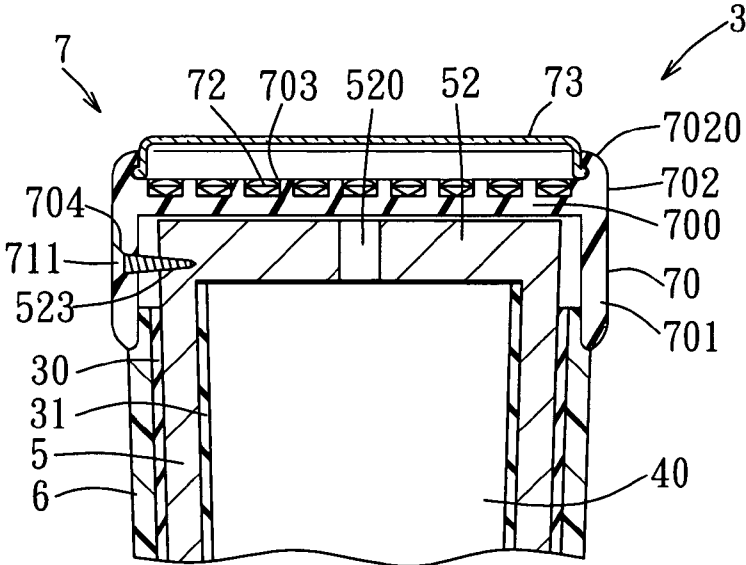


FIG. 8

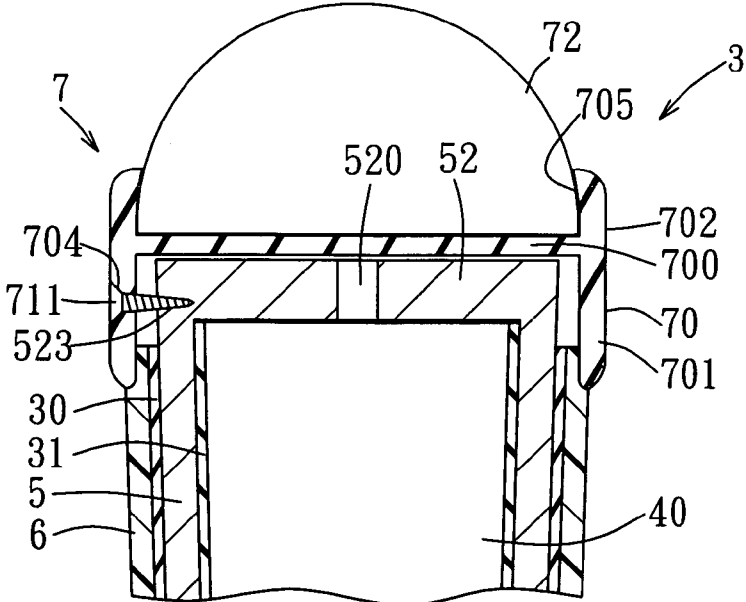


FIG. 9

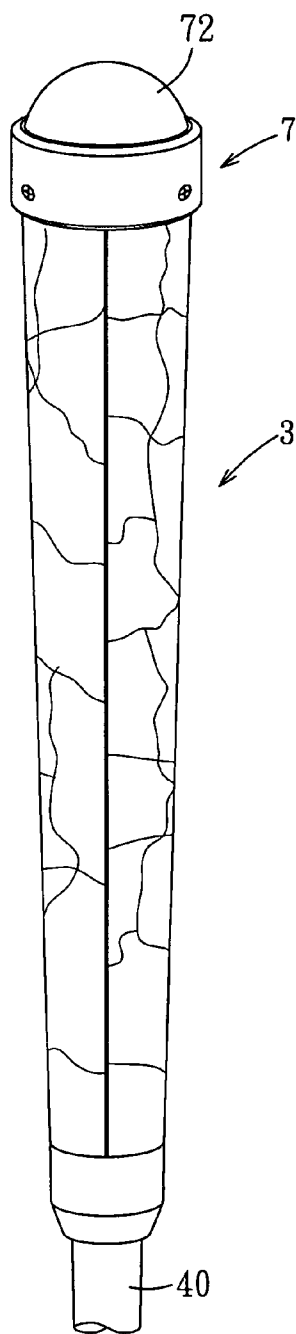


FIG. 10

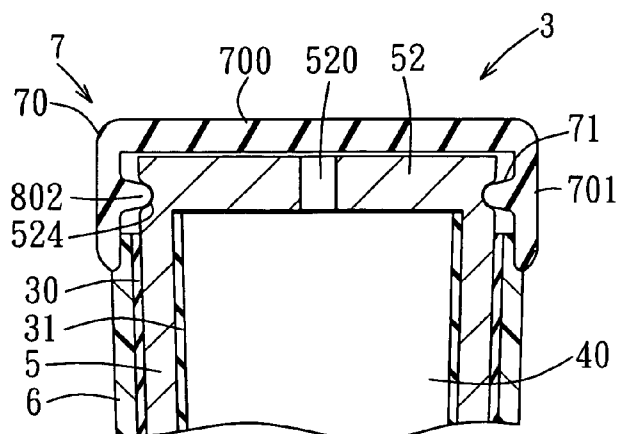


FIG. 11

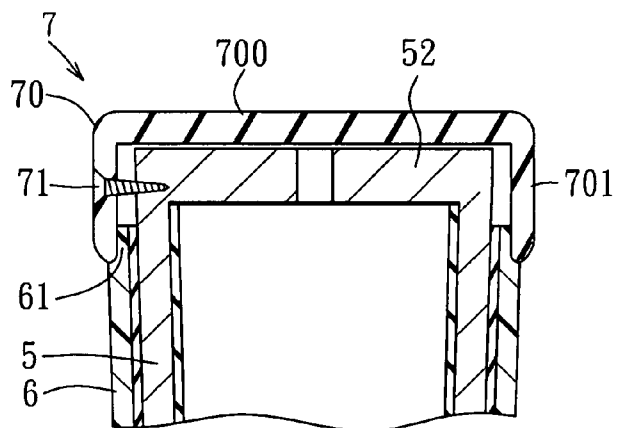


FIG. 12

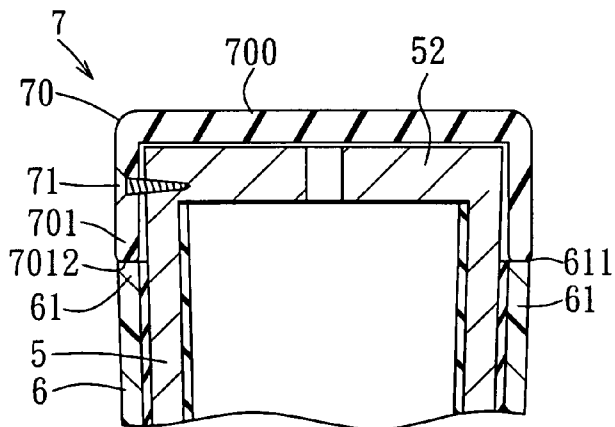


FIG. 13

GOLF CLUB GRIP

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority of Taiwanese Application No. 094101660, filed on Jan. 20, 2005.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The invention relates to a golf club grip, more particularly to a golf club grip which has a cap that is easy to assemble and which has a flexible design to meet various specific demands.

[0004] 2. Description of the Related Art

[0005] U.S. Pat. No. 2,721,741 discloses a grip piece for a golf club shaft. The grip piece includes a hollow cap portion and a strip portion integrated with the cap portion. The cap portion is adapted to fit over an end of the shaft on which the grip piece is attached. Inside an end of the cap is a key, which fits into a corresponding slot in the end of the shaft. The grip piece is assembled by wrapping the strip portion around the shaft and fastening its free end to the shaft with wrapping or the like. The cap portion is then pulled out from the shaft end and twisted in the direction of twist in the strip portion to tighten and even the strip portion on the shaft. Finally, the cap portion is let back on the end of the shaft, taking care to force the key into the slot in the end of the shaft. In practice, however, it is relatively difficult for a golf player to force the key into the slot in the end of the shaft.

[0006] Referring to **FIG. 1**, U.S. Pat. No. 5,816,933 discloses a golf club shaft grip which includes an elongated resilient strip **11** spirally wrapped about a golf club shaft **10**, and an annular cap **12** telescopically received by an upper end of the shaft **10** to restrain the strip **11** from unraveling relative to the shaft **10**. The strip **11** has an open-pored felt layer adhered to the golf club shaft **10**, and a smooth closed pore polyurethane layer bonded to the felt layer. The cap **12** includes an inner skirt **120** and an outer skirt **121**. The cap **12** is secured to an upper open end of the shaft **10** in a manner in which the inner skirt **120** is tightly and telescopically received by the upper open end of the shaft **10** and in which the outer skirt **64** can tightly and telescopically enclose the first wrap of the strip **11**. However, the cap **12** is liable to disengage from the upper open end of the shaft **10** after a period of use. Furthermore, since the strip **11** is relatively thin, the application of the grip to various sizes of golf club shafts is limited.

[0007] Referring to **FIGS. 2 and 3**, in Taiwanese Patent Publication No. 559,098, there is disclosed a golf club grip **2** including an inner tubular body **20**, an anti-slip skin **21**, and a rigid cap **22**. The tubular body **20** includes a first end portion **202**, a second end portion **201** opposite to the first end portion **202**, and a tubular wall surface **200** extending between the first and second end portions **202, 201**. The first end portion **202** has a cross section larger than that of the tubular wall surface **200**, and is formed with a vent hole **2030** in a top face thereof and a projection **203** around the vent hole **2030**. The second end portion **201** is formed as a ring. The anti-slip skin **21** is a tailored sheet, and extends around and covers the tubular wall surface **200** of the tubular

body **20** between the first and second end portions **202, 201** of the tubular body **20**. The anti-slip skin **21** has a first end portion **211** abutting against the second end portion **201** of the tubular body **20**, and a second end portion **212** proximate to the first end portion **202** of the tubular body **20**. A gap **222** is formed between the second end portion **212** of the anti-slip skin **21** and the first end portion **202** of the tubular body **20**. The cap **22** includes a cover plate **223** having a fastening hold **220**, and a skirt portion **221** extending peripherally and axially from the cover plate **223** in a direction toward the second end portion **201** of the tubular body **20**. The cap **22** can be fastened to the first end portion **202** of the tubular body **20** by engaging the fastening hole **220** to the projection **203** of the first end portion **202** of the tubular body **20**.

[0008] While production efficiency of the golf club grip **2** is increased, the fastening hole **220** of the cap **22** is required for fastening the cap **22** to the first end portion **202** of the tubular body **20**. Since the cover plate **223** of the cap **22** is not formed with a continuously smooth top face, the integral appearance of the cover plate **223** of the cap **22** is destroyed, and the flexibility in the selection of materials and in the design of the golf club grip is limited.

SUMMARY OF THE INVENTION

[0009] Therefore, the object of the present invention is to provide a golf club grip which can overcome the shortcomings of the aforesaid prior art.

[0010] Accordingly, the golf club grip of this invention includes a tubular body, a hard shell cap, and a single-sheet anti-slip skin.

[0011] The tubular body is adapted to be sleeved around a grip mounting end portion of a golf club shaft, and includes a first end portion having an end face extending transversely of the first end portion, a second end portion opposite to the first end portion and having a ring protruding from the second end portion and distal from the end face of the first end portion, a tubular wall surface extending between the first and second end portions, and a vent hole formed in the end face of the first end portion. The end face is flat and has no projection around the vent hole.

[0012] The hard shell cap is fastened removably to the first end portion of the tubular body, and includes a cover plate axially covering the vent hole and projecting radially from the end face of the first end portion of the tubular body, and a skirt portion extending-peripherally and axially from the cover plate in a direction toward the ring of the second end portion of the tubular body.

[0013] The single-sheet anti-slip skin extends around and covers the tubular wall surface of the tubular body between the first and second end portions of the tubular body, and has a first end portion abutting against the ring, and a second end portion abutting against the skirt portion.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] Other features and advantages of the present invention will become apparent in the following detailed description of the preferred embodiments with reference to the accompanying drawings, of which:

[0015] **FIG. 1** is a schematic view of a conventional golf club shaft grip;

[0016] FIG. 2 is an exploded perspective view of another conventional golf club grip;

[0017] FIG. 3 is a sectional view of the conventional golf club grip of FIG. 2;

[0018] FIG. 4 is an exploded perspective view of the first preferred embodiment of a golf club grip according to this invention;

[0019] FIG. 5 is a fragmentary axial sectional view of the first preferred embodiment;

[0020] FIG. 6 is a radial sectional view of the first preferred embodiment showing a connection manner of edge portions of an anti-slip skin used in the preferred embodiment;

[0021] FIG. 7 is a radial sectional view of the first preferred embodiment showing another connection manner of the edge portions of the anti-slip skin used in the preferred embodiment;

[0022] FIG. 8 is a fragmentary sectional view of the second preferred embodiment of a golf club grip according to this invention;

[0023] FIG. 9 is a fragmentary sectional view of the third preferred embodiment of a golf club grip according to this invention;

[0024] FIG. 10 is a perspective view of the third preferred embodiment;

[0025] FIG. 11 is a fragmentary sectional view of the fourth preferred embodiment of a golf club grip according to this invention;

[0026] FIG. 12 is a fragmentary sectional view of the fifth preferred embodiment of a golf club grip according to this invention; and

[0027] FIG. 13 is a fragmentary sectional view of a variant of the fifth preferred embodiment.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0028] Before the present invention is described in greater detail, it should be noted that like elements are denoted by the same reference numerals throughout the disclosure.

[0029] Referring to FIGS. 4 and 5, the first preferred embodiment of a golf club grip 3 according to this invention is shown to be adapted to be mounted on a golf club shaft 40 having a grip mounting end portion 41. The golf club grip 3 includes a tubular body 5, a hard shell cap 7, and a single-sheet anti-slip skin 6.

[0030] The tubular body 5 is adapted to be sleeved around the grip mounting end portion 41 of the golf club shaft 40, and includes a first end portion 52 having an end face 521 extending transversely of the first end portion 52, a second end portion 51 opposite to the first end portion 52 and having a ring 511 protruding outwardly from the second end portion 51 and distal from the end face 521 of the first end portion 52, a tubular wall surface 54 extending between the first and second end portions 52, 51, and a vent hole 520 formed in the end face 521 of the first end portion 52. The end face 521 is flat and has no projection around the vent hole 520. The end face 521 can be planar or convex. The tubular body 5

can be adhered to the grip mounting end portion 41 of the golf club shaft 40 using a double-sided adhesive tape 31 or other suitable adhesive medium. The tubular body 5 can be made by molding any suitable material, such as rubber, thermoplastic elastomer, plastic, or the like.

[0031] The hard shell cap 7 is fastened removably to the first end portion 52 of the tubular body 5, and includes a cap body 70. The cap body 70 has a cover plate 700 axially covering the vent hole 520 and projecting radially outward from the end face 521 of the first end portion 52 of the tubular body 5, and a skirt portion 701 extending peripherally and axially from the cover plate 700 in a direction toward the ring 511 of the second end portion 51 of the tubular body 5. Preferably, the skirt portion 701 of the cap body 70 has a length ranging from 4 to 22 mm to overlap the second end portion 61 of the anti-slip skin 6, as best shown in FIG. 5. The cover plate 700 has a flat inner surface corresponding to the end face 521 of the first end portion 52 of the tubular body 5. The diameter of the flat inner surface of the cover plate 700 is greater than that of the end face 521 of the first end portion 52 of the tubular body 5, but not greater than twice thickness of the anti-slip skin 6. Therefore, the skirt portion 701 of the cap body 70 can be sleeved firmly on the anti-slip skin 6 and the first end portion 52 of the tubular body 6. The cap body 70 is made of any suitable material, such as rubber, plastic, stainless steel, iron, aluminum, gold, gold alloy, silver, wood, or the like.

[0032] The cap body 70 further includes a peripheral flange 702 that protrudes from the cover plate 700 opposite to the skirt portion 701, a plurality of inserting recesses 703 formed in the cover plate 700 of the cap body 70, and a plurality of decorative members 72 (such as gemstones, enamel, or the like) inserted respectively in the inserting recesses 703.

[0033] The hard shell cap 7 further includes a fastening member 71 to fasten the skirt portion 701 of the cap body 70 to the first end portion 52 of the tubular body 5. Preferably, the fastening member 71 is composed of a plurality of fastening elements 711, such as tapping screws. The first end portion 52 of the tubular body 5 has a plurality of fastening holes 523. The skirt portion 701 of the cap body 70 includes a plurality of through holes 704 respectively aligned with the fastening holes 523 so as to enable the fastening elements 711 to penetrate through the through holes 704, correspondingly, and to engage the fastening holes 523, respectively.

[0034] The single-sheet anti-slip skin 6 extends around and covers the tubular wall surface 54 of the tubular body 5 between the first and second end portions 52, 51 of the tubular body 5, and has a first end portion 60 abutting against the ring 511, and a second end portion 61 abutting against the skirt portion 701. In this embodiment, the skirt portion 701 of the cap body 70 overlaps the second end portion 61 of the anti-slip skin 6. In particular, the skirt portion 701 of the cap body 70 has an inner surface 7011 abutting against the second end portion 61 of the anti-slip skin 6. Preferably, the anti-slip skin 6 is a tailored sheet made of natural leather, synthetic leather, cloth, other fibrillous material, or the like. Preferably, the anti-slip skin 6 is adhered to the tubular wall surface 54 of the tubular body 5 using a suitable binding layer 30, such as a resin layer.

[0035] Referring to FIG. 6, two edges portions 62, 63 of the anti-slip skin 6 abut against each other along an axial

direction of the tubular body 5. Referring to FIG. 7, alternatively, the edge portions 62, 63 of the anti-slip skin 6 can be formed respectively with short butt sections 620, 630 that overlap each other along a transverse direction transverse to the axial direction. The total thickness of the butt sections 620, 630 should be equal to the thickness of the anti-slip skin 6 so as to result in a neat joint for the butt sections 620, 630 along the axial direction of the tubular body 5.

[0036] Since the skirt portion 701 of the cap body 700 overlaps the second end portion 61 of the anti-slip skin 6, the outer appearance of the golf club grip 3 will not be affected even though a clearance is formed between the second end portion 61 of the anti-slip skin 6 and the first end portion 52 of the tubular body 6 due to a manufacturing tolerance of the tubular body 5. Furthermore, due to the absence of the projection 203 around the vent hole 2030, which is required in the prior art of FIGS. 2 and 3 described hereinabove, the cover plate 700 of the cap 7 has a continuous top surface, which can be utilized sufficiently. Therefore, there is greater flexibility in the selection of materials and in the design of the golf club grip 3.

[0037] The golf club grip 3 of this invention can be assembled with relative ease through the following steps:

[0038] 1) adhering the anti-slip skin 6 to the tubular wall surface 54 of the tubular body 5;

[0039] 2) mounting the tubular body 5 adhered with the anti-slip skin 6 on the grip mounting end portion 41 of the golf club shaft 40; and

[0040] 3) mounting and fastening the hard shell cap 7 to the first end portion 52 of the tubular body 5.

[0041] When it is desired to remove the hard shell cap 7 from the tubular body 5, such as when replacing with a new cap, the fastening member 71 is first loosened to remove the cap body 70 such that a new cap body can be mounted and fastened afterward.

[0042] Referring to FIG. 8, the second preferred embodiment of a golf club grip 3 according to this invention is shown to be similar to the first preferred embodiment. However, in this embodiment, the hard shell cap 7 further includes a protecting lid 73 which is made of an anti-abrasive material, such as crystal glass. The peripheral flange 702 is formed with an engaging portion 7020. The protecting lid 73 engages the engaging portion 7020 of the peripheral flange 702.

[0043] Alternatively, the peripheral flange 702 of the hard shell cap 7 can be made of a material different from that of the cover plate 700 of the hard shell cap 7 so as to enhance aesthetic appeal of the hard shell cap 7. For example, the peripheral flange 702 of the hard shell cap 7 can be made of gold alloy, and the cover plate 700 of the hard shell cap 7 can be made of stainless steel.

[0044] Referring to FIGS. 9 and 10, the third preferred embodiment of a golf club grip 3 according to this invention is shown to be similar to the first preferred embodiment. However, in this embodiment, the hard shell cap 7 includes a decoration recess 705 confined by the peripheral flange 702, and a decorative member 72 (such as sapphire, emerald, or other gemstones) disposed in the decoration recess 705. Furthermore, in this preferred embodiment, the cover plate 700 of the hard shell cap 7 has a flat top surface that does not

include the inserting recesses 703 and the decorative members 72 of the first and second preferred embodiments.

[0045] Referring to FIG. 11, the fourth preferred embodiment of a golf club grip 3 according to this invention is shown to be similar to the first preferred embodiment. However, in this embodiment, the fastening member 71 includes a plurality of fastening elements 802 protruding inwardly from the skirt portion 701 of the cap body 70, and a plurality of blind holes 524 formed in the first end portion 52 of the tubular body 5 and receiving the fastening elements 802, respectively, so as to fasten the hard shell cap 7 on the first end portion 52 of the tubular body 5. Furthermore, in this preferred embodiment, there are no through holes 704 on the outer surface of the skirt portion 701, therefore providing an extra continuous space for commercial design.

[0046] Referring to FIG. 12, the fifth preferred embodiment of a golf club grip 3 according to this invention is shown to be similar to the fourth preferred embodiment. However, the fastening mechanism used in the first preferred embodiment is employed in this preferred embodiment.

[0047] Referring to FIG. 13, alternatively, the skirt portion 701 of the cap body 70 has a substantially annular end face 7012 opposite to the cover plate 700 of the cap body 70. The second end portion 61 of the anti-slip skin 6 has a substantially annular end face 611 abutting against the substantially annular end face 7012 of the skirt portion 701 of the cap body 70.

[0048] While the present invention has been described in connection with what is considered the most practical and preferred embodiments, it is understood that this invention is not limited to the disclosed embodiments but is intended to cover various arrangements included within the spirit and scope of the broadest interpretation so as to encompass all such modifications and equivalent arrangements.

I claim:

1. A golf club grip adapted to be mounted on a golf club shaft having a grip mounting end portion, said golf club grip comprising:

- a tubular body adapted to be sleeved around the grip mounting end portion of the golf club shaft, and including a first end portion having an end face extending transversely of said first end portion, a second end portion opposite to said first end portion and having a ring protruding from said second end portion and distal from said end face of said first end portion, a tubular wall surface extending between said first and second end portions, and a vent hole formed in said end face of said first end portion, said end face being flat and having no projection around said vent hole;
- a hard shell cap fastened removably to said first end portion of said tubular body, and including a cover plate axially covering said vent hole and projecting radially from said end face of said first end portion of said tubular body, and a skirt portion extending peripherally and axially from said cover plate in a direction toward said ring of said second end portion of said tubular body; and
- a single-sheet anti-slip skin extending around and covering said tubular wall surface of said tubular body between said first and second end portions of said

tubular body, and having a first end portion abutting against said ring, and a second end portion abutting against said skirt portion.

2. The golf club grip as claimed in claim 1, wherein said skirt portion of said cap overlaps said second end portion of said anti-slip skin, and has an inner surface abutting against said second end portion of said anti-slip skin.

3. The golf club grip as claimed in claim 1, wherein said skirt portion of said cap has a substantially annular end face opposite to said cover plate of said cap, said second end portion of said anti-slip skin having a substantially annular end face abutting against said substantially annular end face of said skirt portion of said cap.

4. The golf club grip as claimed in claim 1, further comprising a fastening member to fasten said skirt portion of said cap to said first end portion of said tubular body.

5. The golf club grip as claimed in claim 4, wherein said fastening member includes at least one fastening element, said first end portion of said tubular body having at least one fastening hole, said skirt portion of said cap including at least one through hole aligned with said fastening hole so as to enable said fastening element to penetrate through said through hole and to engage said fastening hole.

6. The golf club grip as claimed in claim 4, wherein said fastening member includes at least one fastening element protruding from said skirt portion of said cap, and at least one hole formed in said first end portion of said tubular body and receiving said fastening element.

7. The golf club grip as claimed in claim 1, wherein said cap further includes a peripheral flange that protrudes from said cover plate opposite to said skirt portion.

8. The golf club grip as claimed in claim 7, wherein said cap further includes at least one inserting recess formed in said cover plate of said cap, and at least one decorative member inserted in said inserting recess.

9. The golf club grip as claimed in claim 8, wherein said cap further includes a protecting lid that engages said peripheral flange.

10. The golf club grip as claimed in claim 7, wherein said cap includes a decoration recess confined by said peripheral flange, and a decorative member disposed in said decoration recess.

11. The golf club grip as claimed in claim 1, further comprising a binding layer disposed between said tubular body and said anti-slip skin.

12. The golf club grip as claimed in claim 1, wherein said tubular body is made by molding.

13. The golf club grip as claimed in claim 1, wherein said anti-slip skin is a tailored sheet.

14. The golf club grip as claimed in claim 1, wherein said hard shell cap is made of a material selected from the group consisting of rubber, plastic, stainless steel, iron, aluminum, gold, gold alloy, silver, and wood.

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